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Water-Supply Paper 938

WATER LEVELS AND ARTESIAN PRESSURE IN OBSERVATION WELLS IN THE UNITED STATES IN 1941

PART 3. NORTH-CENTRAL STATES

BY

O. E. MEINZER, L. K. WENZEL
and others

Prepared in cooperation with the States of
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INTRODUCTION

By O. E. Meinzer and L. K. Wenzel

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

The regular publication of records of water levels and artesian pressure in the United States was begun by the Geological Survey in 1935, and from that year through 1939 one volume containing these data was published each year. The volumes were issued as Water-Supply Papers 777, 817, 840, 845, and 886. The number of observation wells and the quantity of records on water levels and artesian pressure obtained from them have increased gradually from year to year. As a result the records for 1940 were published in six volumes, Water-Supply Papers 906-911 inclusive. Water-Supply Paper 906 contains the records for the northeastern States, 907 for the southeastern States, 908 for the north-central States, 909 for the south-central States, 910 for the northwestern States, and 911 for the southwestern States and Hawaii. Records for 1941 are being published in six volumes also, each volume covering a section of the United States corresponding to that covered by one of the volumes containing records for 1940. (See fig. 1.) This series of reports is in a sense an inventory, year by year, of the ground-water supplies of those parts of the country that are covered.

This volume covers the north-central section and gives records of water levels or artesian pressure in about 1,350 observation wells of the Geological Survey and cooperating agencies in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin. Of these wells 27 are equipped with automatic water-stage recorders. For some wells for which records had not heretofore been published, complete records of water levels are given in this report, including those for years before 1941. For wells whose previous records have been published, however, this volume gives only current records. If complete descriptions of the wells were given in one of the previous reports, only the well numbers or the well numbers and brief identifying descriptions are given in this report. The report includes about 17,400 individual measurements of water levels or artesian pressure.

The water levels in this report are given with reference to datum planes of different kinds. Some are given in depths below measuring point--that is, below the recognized reference mark, at or near the top of the well, from which the depth to water level is usually measured; and some are given in height above an assumed datum plane. As the measuring points on some of the wells were changed in 1941, the records may not be directly comparable with those in previous annual volumes, but changes in measuring points are recorded in this report. Water levels given in height above sea level or above assumed datum planes are generally comparable with those given in the previous volumes. Unless otherwise stated, the depth of wells is usually the measured depth below the measuring point.

Acknowledgments for effective services in the preparation of this report are due Miss Dorothy M. Ireland, Mrs. Roxie Lou Davis, and Mrs. Margaret F. Monk, who typed the offset copy; and to Rodney Hart, who prepared the illustrations and gave other assistance in preparing the copy.

GENERAL SUMMARY OF CHANGES IN GROUND-WATER LEVELS IN 1941 IN THE NORTH-CENTRAL PART OF THE UNITED STATES

In 1941 the precipitation in all the north-central States was above normal, and in most parts of the region the water levels in wells rose appreciably. The fluctuations of the water levels and artesian pressure in wells depend, however, on many factors besides the amount of precipitation. Consequently, it is usually not possible to find a simple relation

between the changes in water level or artesian pressure and the departures from normal precipitation.

The following statements are taken chiefly from the interpretative text of the several State sections in this volume. They summarize the changes in ground-water levels and artesian pressure that occurred in 1941

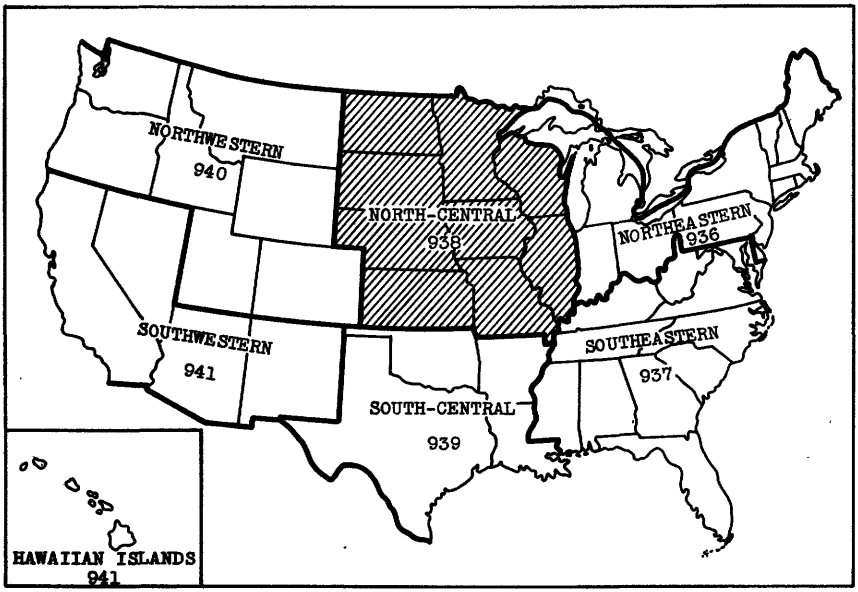

Figure 1.--Outline map of the United States, showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1941. The shaded section represents the part of the country covered by this volume.

in the parts of the underground reservoirs in the north-central States that are tapped by the observation wells.

Iowa.--Owing to copious rains during the late summer and early fall, the water levels in shallow observation wells over the State were on the average higher in December 1941 than in December 1940. The average rise in 46 wells in 15 counties was 2.7 feet. In many of the wells the rise in water level was 10 feet or more, but in a few wells there was a small decline.

The water levels in wells in the Tarkio Creek area, in Iowa and adjacent parts of Missouri, rose to the highest stages since measurements were begun in 1934 as the result of the heavy precipitation, which at Shenandoah amounted

to 48.07 inches--14.07 inches above normal. The average of the water levels in the wells stood about 7.7 feet higher in December 1941 than in December 1940. A large part of the total rise took place in the months of September and October, when the rainfall at Shenandoah amounted to 23.11 inches.

Kansas.--In response to unusually abundant precipitation the water levels in most of the observation wells reached in 1941 the highest stages during their periods of record,and in most of the wells there was an appreciable net rise in water level during the year. In 18 of 21 counties for which records of a year or more are available, there was a net rise in water level during the year in 60 to 100 percent of the wells. In the 3 counties in which the percentage of wells showing net rises was only 50 percent or less, most of the observation wells were pumped or were affected noticeably by nearby pumping during the year. Water-level trends in these wells, therefore, reflect the extent of nearby pumping rather than the amount of recharge.

Nebraska.--In 1941 the change in average water level in 118 key wells distributed over the State was a rise of 0.55 foot; for the period 1934 through 1941 there was a net decline in the same wells of 0.08 foot. During the 7-year period there has been, therefore, essentially no appreciable net average change of water level in the wells despite the fact that precipitation in the State in the same period was about 22.5 inches below normal. Water levels in wells in all parts of Nebraska rose in 1941, but the rises were most pronounced in the northeast and southeast sections. It is estimated that the water stored in the underground reservoirs of the State increased about 4,000,000 acre-feet in the year.

North Dakota.--The average of the water levels in 22 key wells situated in different parts of the State rose slightly more than 1.3 feet in 1941. This is the only annual net rise that has occurred since observations were begun in September 1937. In the first 3½ years of record the average water levels in corresponding months show, in general, decreases in each succeeding year, but in May 1941 the water levels began a recovery that brought them to a new high average stage by October. The year closed with the average water level above that at the close of any previous year since the observations were begun.

South Dakota.--A comparison of the average water levels in a group of 22 wells in southeastern South Dakota shows that in 1941 there was a net rise in 7 wells, a net decline in 14 wells and almost no net change in one well. The average net change in these wells was, however, a net rise of 0.23 foot.

IOWA

STATE-WIDE PROJECT

By T. W. Robinson and A. P. Gerardi

The cooperative program of water-level measurements in observation wells in Iowa,[1/] begun in 1938, was continued in 1941 by the Federal Geological Survey in cooperation with the Iowa Geological Survey.

The observation-well program at the end of 1941 included 208 wells, of which 8 were equipped with automatic water-level recorders. Six wells were dropped during the year and 108 added. Approximately 1,400 individual measurements of water level were made during the year. The water levels in six wells equipped with 8-day automatic water-level recorders were measured weekly. Some wells were measured once a month and others less frequently. A few were measured only once during the year. In addition to the regular observation-well measurements, numerous measurements of water level and pressure-gage readings were made on individual wells whenever the opportunity was afforded.

As a result of copious rains during the late summer and early fall, the water levels in the shallow wells were on the average higher in December 1941 than in December 1940. The average rise in 46 shallow wells located in 15 counties was 2.7 feet during the year. In many of the wells the rise in water level was 10 feet or more, but in a few wells there was a small decline.

The following table gives the average rise of water levels in the shallow wells, by counties, from December 1940 to December 1941, the precipitation at the nearest United States Weather Bureau station during 1941, and departure from normal. The normal of the precipitation for 1940 was used to obtain the departure.

1/ See Water-Supply Papers 886 and 908.

County	No. of wells	Average net change in water levels in 1941, in feet	Precipitation in 1941, in inches (by U.S.Weather Bureau at nearest station)	Departure from normal precipitation, in inches
Adair	4	+3.00	43.06	+10.77
Buena Vista	5	+2.65	29.24	+.27
Calhoun	5	+1.91	27.93	-4.73
Cerro Gordo	6	+1.25	35.24	+4.41
Clay - Palo Alto	6	+2.35	34.21	+6.45
Johnson	1	+1.91	39.33	+4.48
Linn	5	+3.52	39.44	+8.90
Lyon	2	+.04	25.03	-1.48
Madison	1	+.19	42.52	+10.59
Marion	5	+6.67	36.67	+2.88
Page	1	+4.76	43.72	+10.00
Polk	1	+1.44	37.11	+2.01
Sac	3	-.71	21.75	-7.22
Story	1	+10.03	41.52	+5.04

An average of the precipitation in the area in which the wells are located was about 36 inches, or approximately 5 inches above the 68-year average for the State. The water levels rose even in some areas in which the precipitation for the year was below the annual normal, as in Calhoun and Lyon Counties. In Sac County, where the precipitation was 7.22 inches below normal, the water levels declined in all of the 3 observation wells, the average being 0.71 foot. In general the water levels in the shallow wells showed a definite rise during the winter and spring, a sag in the summer, a sharp rise in the fall, and a small decline during December.

Most of the deep observation wells, in which the water is under artesian pressure, are located close to or in areas of heavy pumping. The water level in these wells shows the effect of seasonal pumpage. In general the water levels were highest during the winter and spring and lowest during the mid-summer months of July and August, when pumping is the heaviest.

The fluctuation of the water level in a well 2,250 feet deep, at Ames, is shown in figure 2, as obtained from recorder charts. This well taps the Jordan sandstone. There is no pumping from this aquifer for a distance of about 10 miles from the well, and there has been no pumping from the well since about a year prior to the beginning of the record. The water level is affected by changes in atmospheric pressure and also apparently by pumping at distant points and possibly by variations in the rate of recharge. The water level is highest during late winter and early spring

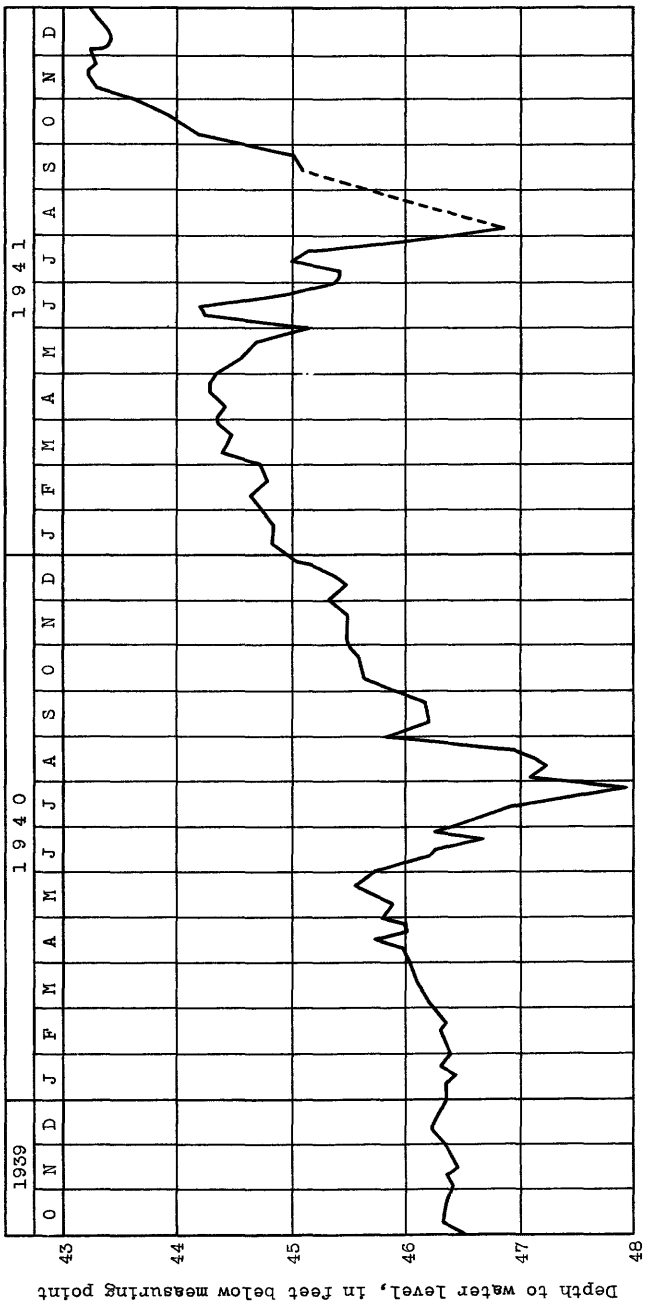

Figure 2.--Hydrograph showing fluctuation of water level in well 83-24-4Q1 tapping water in the Jordan sandstone in a non-pumping area at Ames, Iowa.

and lowest in mid-summer, which corresponds to variations in seasonal pumpage. The general trend of the water levels during the period of record is upward. The lowest water level observed was 47.97 feet below the measuring point on July 27, 1940, and the highest was 42.98 feet below the measuring point on December 4, 1941.

Progress was made in the collection of records of pumpage from underground sources, especially in Cerro Gordo County, where pumpage records or estimates were obtained from all of the municipalities and for most private users of ground water. During the year many pumping tests were made by the State and Federal Surveys to determine the water-yielding capacities of wells and the transmissibilities of water-bearing formations.

Records of the observation wells are listed alphabetically by counties on the following pages. All water levels are expressed in feet below the measuring point. If descriptions of wells and measuring points are not given in this report they will be found in Water-Supply Paper 886 or 908.

Adair County

76-31-21R1. John Breheny. Water levels, in feet below measuring point, 1941: Feb. 11, 22.61; Mar. 29, 19.73; Apr. 29, 18.65; May 28, 19.00. Measurements temporarily discontinued.

76-31-25R1. Harold Bochart.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	6.55	May 28	6.64	Aug. 28	8.07	Nov. 28	4.99
Mar. 29	6.81	June 30	6.29	Sept.30	6.04	Dec. 21	5.40
Apr. 29	6.10	July 29	7.70	Oct. 28	4.98		

75-31-15B1. John E. Soderberg.

Water level, in feet below measuring point, 1941

Feb. 11	7.79	May 28	5.02	Aug. 28	8.04	Nov. 28	2.67
Mar. 29	5.13	June 28	4.53	Sept.30	7.27	Dec. 21	3.28
Apr. 29	4.29	July 28	6.05	Oct. 28	2.14		

75-31-18B1. Charles Gilham.

Water level, in feet below measuring point, 1941

Feb. 11	9.38	May 28	9.21	Aug. 28	11.29	Nov. 28	8.83
Mar. 29	9.30	June 30	9.23	Sept.30	9.71	Dec. 21	9.49
Apr. 29	8.96	July 29	10.59	Oct. 28	8.26		

Adair County--Continued

75-30-8A1. Edward Snithen and Ernest Miller.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	6.16	May 28	8.13	Aug. 28	9.16	Nov. 28	5.67
Mar. 29	11.73	June 30	6.74	Sept.30	7.61	Dec. 21	6.20
Apr. 29	8.68	July 29	7.84	Oct. 28	5.49		

Benton County

85-10-16M3. Owner's number 3. City of Vinton. Measurements by R. G. Miller, water superintendent. Water level affected by pumping. Water levels, in feet below measuring point, 1941: Jan. 13, a/ 29.12; b/ 49.0; Dec. 22, c/ 26.17; b/ 45.25.

Buena Vista County

(Vicinity of Storm Lake)

91-37-32E1.

Water level, in feet below measuring point, 1941

Feb. 12	3.66	Apr. 18	4.53	June 17	4.36	Aug. 27	6.93
Mar. 20	4.85	May 20	4.77	July 23	5.44	Dec. 11	4.47

90-37-3E1. Emil Schmitz.

Water level, in feet below measuring point, 1941

Feb. 12	14.01	Apr. 18	12.62	June 17	7.44	Aug. 27	13.66
Mar. 20	13.64	May 20	10.70	July 23	11.48	Dec. 11	8.90

90-37-3M1. L. B. Watt.

Water level, in feet below measuring point, 1941

Feb. 12	22.45	Apr. 18	22.08	June 17	18.66	Aug. 27	19.88
Mar. 20	22.27	May 20	19.47	July 23	18.58	Dec. 11	16.37

90-37-11J1. United States Geological Survey.

Water level, in feet below measuring point, 1941

Feb. 12	4.27	Apr. 18	3.54	June 17	3.88	Aug. 27	(d)
Mar. 20	4.47	May 20	4.55	July 23	5.44	Dec. 11	5.15

90-37-22J1. William Monteful.

Water level, in feet below measuring point, 1941

Feb. 12	34.82	Apr. 18	35.15	June 17	35.06	Aug. 27	34.69
Mar. 20	35.04	May 20	35.18	July 23	34.80	Dec. 11	33.96

90-37-23D1. Biggins Bros.

Water level, in feet below measuring point, 1941

Feb. 12	27.23	Apr. 18	26.87	June 17	26.69	Aug. 27	28.29
Mar. 20	27.07	May 20	26.81	July 23	27.72	Dec. 11	25.80

a Pump shut down 1¼ hours.
b Pumping.
c Pump shut down 3 hours.
d Dry.

Buena Vista County--Continued

90-37-34B1. Ed Zinn. NW¼NE¼ sec. 34, T. 90 N., R. 37 W. Domestic well, depth 28.5 feet. Measuring point, top of concrete curb 2.5 feet above land surface. Equipped with lift pump.

Water level, in feet below measuring point, 1940-41

Date	Water level	Date	Water level	Date	Water level
June 26, 1940	17.34	Apr. 18, 1941	17.70	July 23, 1941	17.59
Feb. 12, 1941	18.37	May 20	16.86	Aug. 27	20.32
Mar. 20	18.04	June 17	15.98	Dec. 11	18.10

Calhoun County

(Vicinity of Twin Lakes)

89-32-28N1.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	7.43	Apr. 18	5.76	June 18	5.50	Aug. 27	(a)
Mar. 20	6.10	May 27	8.04	July 22	7.72	Dec. 11	6.98

89-32-31R1. E. F. Legg.

Water level, in feet below measuring point, 1941

Feb. 11	11.27	May 27	11.58	July 22	11.14	Dec. 11	12.06
Apr. 18	11.26	June 18	10.88	Aug. 27	12.43		

89-32-33N1. Ben Burns.

Water level, in feet below measuring point, 1941

Feb. 11	8.13	Apr. 18	4.72	June 18	5.15	Aug. 27	8.28
Mar. 20	5.54	May 27	5.45	July 22	7.47	Dec. 11	4.80

88-33-1B1. -- Burns.

Water level, in feet below measuring point, 1941

Feb. 11	10.94	Apr. 18	9.21	June 18	9.45	Aug. 27	14.04
Mar. 20	9.60	May 27	10.46	July 22	11.46	Dec. 11	13.99

88-33-D1. George Voss.

Water level, in feet below measuring point, 1941

Feb. 11	10.51	Apr. 18	9.26	June 18	9.42	Aug. 27	11.22
Mar. 20	10.57	May 27	9.96	July 22	9.28	Dec. 11	10.85

Carroll County

85-35-18D1. City of Breda.

Water level, in feet below measuring point, 1941

Feb. 11	193.64	Apr. 17	192.74	June 17	193.64	Aug. 27	193.53
Mar. 19	193.36	May 27 b	207.35	July 29	193.06	Dec. 11	194.39

a Dry.
b New city well, 25 feet south, pumping.

Carroll County--Continued

84-34-25F1. Owner's test hole 1. City of Carroll.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	a 44.24	Apr. 17	a 48.66	June 17	a 46.52	Aug. 27	48.68
Mar. 19	a 43.09	May 27	a 50.02	July 28	a 51.74	Dec. 12	44.05

Cerro Gordo County

94-22-9R1. L. C. Zobel. SE¼SE¼ sec. 9, T. 97 N., R. 22 W. Drilled stock well, diameter 6 inches, depth 123.0 feet. Measuring point, top of concrete curb at pump base, 2.1 feet above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 7, 35.78.

97-22-16H1. Vern Hennis. SE¼SE¼ sec. 16, T. 97 N., R. 22 W. Bored domestic well, diameter 12 inches, depth 33.8 feet. Measuring point, top of tile casing, 1.0 foot above land surface. Taps water in glacial drift. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 7, 18.61.

97-22-21J1. E. M. Fanhill. NE¼SE¼ sec. 21, T. 97 N., R. 22 W. Fifty feet south of well 97-22-21J2. Drilled stock well, diameter 5 inches, depth 106.0 feet. Measuring point, top of casing flange, 1.0 foot above land surface and 1.4 feet (by hand level) below measuring point of well 97-22-21J2. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 7, 16.12.

97-22-21J2. E. M. Fanhill. NE¼SE¼ sec. 21, T. 97 N., R. 22 W. Fifty feet north of well 97-22-21J1. Drilled domestic well, diameter 12 inches, depth 53.0 feet. Measuring point, top of 1-inch board, pump support, 0.5 foot above land surface and 1.4 feet, (by hand level) above measuring point of well 97-22-J1. Taps water in glacial drift. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 7, 12.85.

97-22-36H1. James Kern. SE¼NE¼ sec. 36, T. 97 N., R. 22 W. Six feet north of well 97-22-36H2. Abandoned bored well, diameter 18 inches, depth 36 feet. Measuring point, top of tile casing at north side, at land surface and 1.26 feet below measuring point of well 97-22-36H2. Taps water in glacial drift. Water level, in feet below measuring point, 1941: Oct. 8, 22.37.

97-22-36H2. James Kern. SE¼SE¼ sec. 36, T. 97 N., R. 22 W. Six feet south of 97-22-36H1. Drilled domestic and stock well, diameter 4 inches, reported depth 112 feet. Measuring point, top of casing, 1.0 foot above land surface and 1.26 feet above measuring point of well 97-22-36H1. Water level, in feet below measuring point, 1941: Oct. 8, 23.90.

97-21-9E1. E. H. Phillips. SW¼NW¼ sec. 9, T. 97 N., R. 21 W. Drilled domestic and stock well, diameter 6 inches, depth 206.0 feet. Measuring point, top of casing, 3.4 feet below land surface. Taps water in limestone. Equipped with automatic pressure system, operated by one horsepower electric motor. Water level, in feet below measuring point, 1941: Nov. 11, 91.20.

97-21-9E2. E. H. Phillips. SW¼NW¼ sec. 9, T. 97 N., R. 21 W. Abandoned dug and bored well, diameter 5 feet to 1 foot, depth 37.0 feet. Measuring point, top of concrete casing, 0.8 foot above land surface. Taps water in glacial drift. Water level, in feet below measuring point, 1941: Nov. 11, 31.80.

a Nearby wells pumping.

Cerro Gordo County--Continued

97-21-18M1. W. D. Hurd. NW¼SW¼ sec. 18, T. 97 N., R. 21 W. Drilled domestic and stock well, diameter 5 inches, depth 63 feet. Drilled in bottom of well 97-21-18M2. Measuring point, common to well 97-21-18M2, top of wood pump platform and concrete curb, 1.2 feet above land surface. Taps water in limestone. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Nov. 11, 12.3.

97-21-18M2. W. D. Hurd. NW¼SW¼ sec. 18, T. 97 N., R. 21 W. Unused dug well, diameter 33 inches, depth 13 feet. Measuring point common to well 97-21-18M1, top of wood pump platform and concrete curb, 1.2 feet above land surface. Water level, in feet below measuring point, 1941: Nov. 11, 10.22.

97-21-25R1. Etna Life Insurance Company. SE¼SE¼ sec. 25, T. 97 N., R. 21 W. Drilled domestic and stock well, diameter 6 inches, depth 189.5 feet. Measuring point, top of 2-inch plank well platform, 0.2 foot above land surface. Taps water in limestone. Water level, in feet below measuring point, 1941: Nov. 13, 27.03.

97-20-11D2. C. H. Sloan. NW¼NW¼ sec. 11, T. 97 N., R. 20 E. Unused bored well, diameter 18 inches, depth 33.0 feet. Measuring point, top of plank cover at land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 18, 7.74.

97-20-17N1. ----------. SW¼SW¼ sec. 17, T. 97 N., R. 20 E. Unused dug well, diameter 36 inches, depth 21.5 feet. Measuring point, top of casing level with concrete curb, 0.3 foot above land surface. Water level, in feet below measuring point, 1941: Nov. 19, 10.10.

97-20-24H1. Mrs. Vinnie Shanks. SE¼NE¼ sec. 24, T. 97 N., R. 20 E. Unused dug well, diameter 36 inches, depth 33.0 feet. Measuring point, top of concrete well platform, 0.4 foot above land surface. Water level, in feet below measuring point, 1941: Nov. 14, 5.55.

97-20-24H2. Mrs. Vinnie Shanks. SE¼NE¼ sec. 24, T. 97 N., R. 20 E. Drilled domestic and stock well, diameter 5 inches, reported depth 280 feet. Measuring point, top of casing, 4.2 feet below land surface. Equipped with lift pump and electric motor. Water level, in feet below measuring point, 1941: Nov. 14, 48.81.

97-20-27D1. ----------. NW¼NW¼ sec. 27, T. 97 N., R. 20 W. Unused drilled well, diameter 6 inches, depth 66.4 feet. Measuring point, bottom of crack in pump housing, 0.3 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 19, 13.68.

97-20-32H1. ----------. SE¼NE¼ sec. 32, T. 97 N., R. 20 W. Unused drilled well, diameter 4½ inches, depth 41.6 feet. Measuring point, top of casing and concrete curb, 0.3 foot above land surface. Water level, in feet below measuring point, 1941: Nov. 21, 15.58.

97-19-5N1. Chicago, Milwaukee, St. Paul and Pacific Railroad. SW¼SW¼ sec. 5, T. 97 N., R. 19 W. Dug domestic well, diameter 5 feet, depth 22 feet. Measuring point, top of concrete platform, 1.0 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 14, 18.00.

97-19-16H1. ----------. SE¼NE¼ sec. 16, T. 97 N., R. 19 W. Unused drilled well, diameter 6 inches, depth 62.0 feet. Measuring point, top of casing, 2.0 feet above land surface. Water level, in feet below measuring point, 1941: Nov. 13, 6.15.

97-19-21H2. Mrs. Oscar Engstrom. SE¼NE¼ sec. 21, T. 97 N., R. 19 W. Dug domestic well, diameter 36 inches, depth 11.0 feet. Measuring point, top of plank cover, 0.8 foot above land surface. Equipped with suction pump. Water level, in feet below measuring point, 1941: Nov. 13, 5.78.

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Cerro Gordo County--Continued

97-19-23H1. Jas. Senior. SE¼NE¼ sec. 23, T. 97 N., R. 19 W. Drilled domestic and stock well, diameter 5 inches, reported depth 239 feet. Measuring point, top of west bolt hole in casing, 0.7 foot above land surface. Taps water in limestone. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Nov. 14, 19.20.

97-19-30R1. E. Stebens. SE¼SE¼ sec. 30, T. 97 N., R. 19 W. Dug domestic well, diameter 36 inches, depth 16.0 feet. Measuring point, top of plank cover, 0.75 foot above land surface. Taps water in sand. Equipped with lift pump and pressure system operated by electric motor. Water level, in feet below measuring point, 1941: Nov. 13, 9.18.

97-19-30R2. E. Stebens, SE¼SE¼ sec. 30, T. 97 N., R. 19 W. Drilled stock well, diameter 5 inches, depth 60.0 feet. Measuring point, top of casing, 5.0 feet below land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Nov. 13, 11.50.

96-22-7Q1. W. S. Overgaard. SW¼SE¼ sec. 7, T. 96 N., R. 22 W. Drilled domestic and stock well, depth 101.2 feet. Measuring point, top of casing, 1.0 foot above land surface and 0.25 foot above measuring point of well 97-22-7Q2. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 14, 20.66.

96-22-7Q2. W. S. Overgaard. SW¼SE¼ sec. 7, T. 96 N., R. 22 W. Abandoned dug well, diameter 15 inches, depth 18.6 feet. Measuring point, top of concrete curb, 0.3 foot above land surface and 0.25 foot below measuring point of well 97-22-7Q1. Water level, in feet below measuring point, 1941: Oct. 14, 8.72.

96-22-12P1. Daughters of the American Revolution Camp.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Mar. 22	44.45	June 19	43.65	Aug. 20	43.37
May 21	44.37	July 22	43.20	Oct. 14	43.11

96-22-14B1. A. A. Adams.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	28.10	Apr. 22	27.12	June 19	26.40	Aug. 20	27.47
Mar. 22	27.29	May 21	27.34	July 22	26.47	Oct. 14	26.90

96-22-14C1. Fred Stephens.

Water level, in feet below measuring point, 1941

Feb. 13	33.64	May 25	33.44	July 22	33.05	Oct. 14	33.21
Mar. 22	33.69	June 19	32.98	Aug. 20	33.63	Dec. 10	32.61
Apr. 22	33.55						

96-22-20C1. The Willow Inn.

Water level, in feet below measuring point, 1941

Feb. 13	6.10	May 21	4.84	July 22	5.44	Oct. 14	4.35
Mar. 22	5.05	June 19	3.75	Aug. 20	6.47	Dec. 12	4.20
Apr. 22	2.40						

Cerro Gordo County--Continued

96-22-20L1.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	32.51	May 21	32.14	July 22	41.73	Oct. 14	32.45
Mar. 22	32.41	June 19	37.38	Aug. 20	36.47	Dec. 10	31.48
Apr. 22	32.27						

96-22-23Q1.

Water level, in feet below measuring point, 1941

Feb. 13	23.27	May 21	21.72	July 22	17.30	Oct. 14	21.28
Mar. 22	23.37	June 19	19.80	Aug. 20	18.51	Dec. 10	20.67
Apr. 22	22.50						

96-22-25D2. United States Geological Survey.

Water level, in feet below measuring point, 1941

Feb. 13	7.47	Apr. 22	5.57	June 19	5.70	Aug. 20	7.45
Mar. 22	6.40	May 21	6.61	July 22	6.63	Dec. 10	6.25

96-22-30H1. Mrs. Francis Skene. SE¼NE¼ sec. 30, T. 96 N., R. 22 W. Bored and driven domestic well, diameter 24 inches, depth 19.5 feet. Measuring point, top of casing, at land surface. Taps water in glacial drift. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 15, 11.67.

96-22-30H2. Mrs. Francis Skene. SE¼NE¼ sec. 30, T. 96 N., R. 22 W. Drilled stock well, diameter 5 inches, depth 125 feet. Measuring point, top of casing 6.4 feet below concrete pit curb which is 1.0 foot above land surface. Equipped with force pump and windmill. Water level, in feet below measuring point, 1941: Oct. 15, 12.03.

96-21-2G1. S. P. Skovgaard. SW¼NE¼ sec. 2, T. 96 N., R. 21 W. Drilled domestic and stock well, diameter 4 inches, depth 79 feet. Measuring point, top of casing 2.6 feet above land surface. Taps water in limestone. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Nov. 12, 12.64.

96-21-5G1. Farmers National Life Insurance Company. SW¼NE¼ sec. 5, T. 96 N., R. 21 W. Abandoned dug and driven well, diameter 3 feet to 2 inches, depth 34.0 feet. Measuring point, top of concrete curb, 1.5 feet above land surface. Taps water in glacial drift. Water level, in feet below measuring point, 1941: Nov. 13, 24.35.

96-21-7P1. -------Buttleman. Water level, in feet below measuring point, 1941: Feb. 13, 19.5. Measurements discontinued.

96-21-13E1. Mason City and Clear Lake Railway.

Water level, in feet below measuring point, 1941

Feb. 13	6.42	Apr. 22	5.40	June 19	5.32	Nov. 19	5.40
Mar. 22	5.64	May 22	6.25	Aug. 20	6.56		

96-21-17C1. Clear Lake Sand and Gravel Company. (Incorrectly shown as 96-21-17B1 in Water-Supply Paper 908).

Water level, in feet below measuring point, 1941

Feb. 13	11.65	May 21	11.72	July 22	10.98	Nov. 18	11.03
Mar. 22	11.17	June 19	11.09	Aug. 20	11.50	Dec. 10	11.17
Apr. 22	11.35						

Cerro Gordo County--Continued

96-21-18H1. Sam Kennedy.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	11.45	May 21	11.20	July 22	10.40	Nov. 19	9.98
Mar. 22	11.07	June 19	10.24	Aug. 20	10.67	Dec. 10	10.20
Apr. 22	11.12						

96-21-17M1.

Water level, in feet below measuring point, 1941

Feb. 13	4.25	May 21	3.22	July 22	4.39	Nov. 19	4.02
Mar. 22	3.88	June 19	2.31	Aug. 20	4.57	Dec. 10	4.33
Apr. 22	2.43						

96-21-19N1. ------- Harms. SW¼SW¼ sec. 19, T. 96 N., R. 21 W. Unused bored well, diameter 12 inches, depth 60.8 feet. Measuring point, top of casing 0.3 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 18, 6.56.

96-21-22A1. D. S. Mott. NE¼NE¼ sec. 22, T. 96 N., R. 21 W. Drilled domestic and stock well, depth 68.6 feet. Measuring point, top of 2-inch plank pit cover, 0.2 foot above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point. 1941: Nov. 18, 17.15.

96-21-23R1. Elmer and Willard Thrams. SW¼SW¼ sec. 23, T. 96 N., R. 21 W. Abandoned dug and driven well, diameter 4 feet to 1½ inches, depth 35.5 feet. Measuring point, top of 2-inch plank pit cover level with concrete floor 1.0 foot above land surface. Water level, in feet below measuring point, 1941: Nov. 19, 5.94.

96-21-33A1. Ivor Toft. NE¼NE¼ sec. 33, T. 96 N., R. 21 W. Dug domestic and stock well, diameter 36 inches, depth 40.0 feet. Measuring point, top of 2-inch plank well cover level with concrete floor and land surface. Taps water in glacial drift. Equipped with lift pump and electric motor. Water level, in feet below measuring point, 1941: Nov. 19, 17.17.

96-20-3L2. Owner No. 8. City of Mason City. NE¼SW¼ sec. 3, T. 96 N., R. 20 W. Drilled well, diameter 20 inches, depth 1,219 feet. Measuring point, top of steel plate, over casing at hole, 4.8 feet below land surface. Equipped with air lift pump, and used as standby for city supply. Taps water in Jordan sandstone. Water levels affected by pumping from nearby wells. Water-level recorder maintained on well since Nov. 5, 1941.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
July 9	4:15 p.m.	184.84	Nov. 20	2:00 p.m.	180.65
16	2:50 p.m.	189.78	Dec. 12	4:10 p.m.	187.20
Nov. 5	3:10 p.m.	183.35			

96-20-3P1. Minneapolis and St. Louis Railroad. SE¼SW¼ sec. 3, T. 96 N., R. 20 W. Drilled railroad well, diameter 12 inches, depth 805 feet. Measuring point, top of casing, 6.3 feet below land surface. Taps water in St. Peter sandstone. Equipped with 15 horsepower turbine pump. Water level, in feet below measuring point, 1941: 35.92 feet.

96-20-5J1. ----------. NE¼SE¼ sec. 5, T. 96 N., R. 20 W. Dug stock well, diameter 24 inches, depth 11.5 feet. Measuring point, top of 2-inch pump support platform, 1.7 feet above land surface. Taps water in glacial drift. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 21, 8.57.

Cerro Gordo County--Continued

96-20-10N1. Swift and Company. SW¼SW¼ sec. 10, T. 96 N., R. 20 W. Drilled industrial well, diameter 12 inches, depth 462 feet. Measuring point, horizontal hole in pump base, at west side 0.8 foot above land surface. Taps water in limestone. Equipped with 10 horsepower turbine pump. Water levels, in feet below measuring point, 1941: June, a/ 50.70; Nov. 20, 37.50.

96-20-16J1. Owner's number 11. City of Mason City.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
May 22	194.50	June 11	189.95	Nov. 5	200.94
June 4	192.70	Oct. 9	207.83		

96-20-29A1. Roy Kirk. NE¼NE¼ sec. 29, T. 96 N., R. 20 W. Drilled domestic and stock well, diameter 6 inches, depth 155.8 feet. Measuring point, top inside rim of manhole cover 0.1 foot above land surface. Equipped with automatic pressure system. Water level, in feet below measuring point, 1941: Nov. 21, 13.05.

96-20-36N1. ----------. SW¼SW¼ sec. 36, T. 96 N., R. 20 W. Bored domestic well, diameter 6 inches, depth 16.0 feet. Measuring point, top of casing, 0.7 foot above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 10, 1.45.

96-19-3M1. ----------. NW¼SW¼ sec. 3, T. 96 N., R. 19 W. Unused drilled well, diameter 5 inches, depth 165 feet. Measuring point, top of casing, 1.8 feet above land surface. Taps water in limestone. Water level, in feet below measuring point, 1941: Nov. 6, 60.68.

96-19-18R1. Chicago, Milwaukee, St. Paul, and Pacific Railroad. SE¼SE¼ sec. 18, T. 96 N., R. 19 W. Unused drilled well, diameter 6 inches, depth 120 feet. Measuring point, top plank cover, 0.8 foot above land surface. Taps water in limestone. Equipped with lift pump. Water levels, in feet below measuring point, 1941: Aug. 14, 10.53; Nov. 11, 6.28.

96-19-18R2. R. L. Billings. SE¼SE¼ sec. 18, T. 96 N., R. 19 W. Drilled domestic well, diameter 5 inches, depth 25.0 feet. Measuring point, top of casing at land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 11, 5.60.

96-19-27E1. Independent Order of Foresters. SW¼NW¼ sec. 27, T. 96 N., R. 19 W. Drilled domestic and stock well, diameter 6 inches, depth 67.2 feet. Measuring point, top of casing, 1.3 feet above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 7, 6.39.

96-19-31P2. Fay Thompson. SE¼SW¼ sec. 31, T. 96 N., R. 19 W. Abandoned well, diameter 5 inches, depth 117.0 feet. Measuring point, top of casing 5.0 feet below land surface. Water level, in feet below measuring point, 1941: Nov. 11, 84.46 feet.

95-22-3B1. Knut Olson. NW¼NE¼ sec. 3, T. 95 N., R. 22 W. Drilled domestic and stock well, diameter 4 inches, depth 134.2 feet. Measuring point, top of casing, 1.4 feet above land surface. Taps water in limestone. Equipped with suction pump and electric motor. Water level, in feet below measuring point, 1941: Oct. 15, 18.03.

95-22-5M1. School District. NW¼SW¼ sec. 5, T. 95 N., R. 22 W. Unused jetted well, diameter 4 inches, depth 29.3 feet. Measuring point, top of casing, 1.3 feet above land surface. Taps water in glacial drift. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 15, 5.42.

a After extensive pumping.

Cerro Gordo County--Continued

95-22-8C1. Jurgenson Bros. NE¼NW¼ sec. 8, T. 95 N., R. 22 W. Drilled domestic and stock well, diameter 4 3/4 inches, depth 152.5 feet. Measuring point, top of concrete pit cover, 0.5 foot above land surface. Taps water in limestone. Equipped with automatic pressure system. Water level, in feet below measuring point, 1941: Oct. 16, 14.43.

95-22-19R1. ----------. SE¼SE¼ sec. 19, T. 95 N., R. 22 W. Drilled domestic and stock well, diameter 5 inches, depth 70.9 feet. Measuring point, top of casing, 0.85 foot above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 16, 4.05.

95-22-22C1. John Miles. NE¼NW¼ sec. 22, T. 95 N., R. 22 W. Abandoned bored well, diameter 18 inches, depth 21.5 feet. Measuring point, top of concrete curb, 0.3 foot above land surface. Water level, in feet below measuring point, 1941: Oct. 16, 10.50.

95-22-34E1. J. G. Lindon. SW¼NW¼ sec. 34, T. 95 N., R. 22 W. Drilled stock well, diameter 4 inches, depth 132 feet. Measuring point, top of casing, 1.1 feet above land surface. Taps water in limestone. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 16, 30.29.

95-21-2H1. Amy J. Houck. SE¼NE¼ sec. 2, T. 95 N., R. 21 W. Drilled domestic and stock well, diameter 5 inches, depth 138.3 feet. Measuring point, top of plank cover, 2.2 feet above land surface. Taps water in limestone. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Sept. 23, 38.01.

95-21-7D1. Commissioner of Insurance of Iowa. NW¼NW¼ sec. 7, T. 95 N., R. 21 W. Dug and drilled domestic and stock well, diameter 42 inches, depth 40 feet. Measuring point, top of 2-inch plank cover, 2.2 feet above land surface. Taps water in glacial drift. Equipped with lift pump. Water level, in feet below measuring point, 1941: Sept. 23, 16.57.

95-21-7P1. Art Enobit. SE¼SW¼ sec. 7, T. 95 N., R. 21 W. Drilled domestic and stock well, diameter 5 inches, depth over 100 feet. Measuring point, top of casing 1.0 foot above land surface. Taps water in limestone. Equipped with lift pump. Water level, in feet below measuring point, 1941: Sept. 24, 13.66

95-21-12D2. ----------. NW¼NW¼ sec. 12, T. 95 N., R. 21 W. Bored domestic well, diameter 5 inches, depth 25.0 feet. Measuring point, top of casing, 0.3 foot above land surface. Taps water in glacial drift. Equipped with pitcher pump. Water level, in feet below measuring point, 1941: Sept. 23, 6.85.

95-21-27Q1. John Hancock Insurance Company. SW¼SE¼ sec. 27, T. 95 N., R. 21 W. Drilled domestic well, diameter 5 inches, depth 114.1 feet. Measuring point, top of casing, 2.4 feet above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Sept. 25, 21.76.

95-20-3B1. Farmers Co-op Society. NW¼NE¼ sec 3, T. 95 N., R. 20 W. Drilled domestic well, diameter 5 inches, depth 60.8 feet. Measuring point, top of wood platform 2.2 feet above land surface. Water level, in feet below measuring point, 1941: Oct. 15, 11.36.

95-20-5J2. Will Hunt. NE¼SE¼ sec. 5, T. 95 N., R. 20 W. Dug and drilled domestic well, diameter 18 inches to 5 inches, depth 43.3 feet. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 15, 7.70.

95-20-13N1. School District. SW¼SW¼ sec. 13, T. 95 N., R. 20 W. Used drilled well, diameter 4 inches, depth 50.5 feet. Measuring point, top of casing 0.5 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 16, 3.24.

Cerro Gordo County--Continued

95-20-20C1. ----------. NE¼NW¼ sec. 20, T. 95 N., R. 20 W. Unused drilled well, diameter 5 inches, depth 40.5 feet. Measuring point, top of casing 2.0 feet above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 15, 7.02.

95-20-27Q1. ----------. SW¼SE¼ sec. 27, T. 95 N., R. 20 W. Bored stock well, diameter 6 inches, depth 16.5 feet. Measuring point, top of casing, 2.0 feet above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 16, 4.09.

95-20-33C1. Iowa State College. NE¼NW¼ sec. 33, T. 95 N., R. 20 W. Drilled domestic and stock well, diameter 5 inches, depth 54.0 feet. Measuring point, top of wood platform, 1.0 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 15, 10.35.

95-19-9H1. ----------. SE¼NE¼ sec. 9, T. 95 N., R. 19 W. Drilled stock well, diameter 5 inches, depth 44.0 feet. Measuring point, top of casing, 0.3 foot above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 10, 10.58.

95-19-18M1. ----------. NW¼SW¼ sec. 18, T. 95 N., R. 19 W. Drilled stock well, diameter 5 inches, depth 30.5 feet. Measuring point, top of casing 1.2 feet above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 10, 2.49.

95-19-26D2. H. F. Coyle. NW¼NW¼ sec. 26, T. 95 N., R. 19 W. Drilled domestic well, diameter 5 inches, depth 64.0 feet. Measuring point, top of casing, 1.0 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 14, 26.09.

95-19-30P1. ----------. SE¼SW¼ sec. 30, T. 95 N., R. 19 W. Drilled domestic well, diameter 5 inches, depth 35.0 feet. Measuring point, top of casing, 0.2 foot above land surface, and 3.2 feet above measuring point of well 95-19-30P2. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 10, 4.91.

95-19-30P2. ----------. SE¼SW¼ sec. 30, T. 95 N., R. 19 W. Bored stock well, diameter 8 inches, depth 23.5 feet. Measuring point, top of wood platform, 1.0 foot above land surface, and 3.2 feet below measuring point of well 95-19-30P1. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 10, 3.74.

94-22-8D1. ------- Dugan. NW¼NW¼ sec. 8, T. 94 N., R. 22 W. Bored domestic well, diameter 8 inches, depth 74.0 feet. Measuring point, top of casing, 1.5 feet above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 21, 13.90.

94-22-20D1. Pete Wohler. NW¼NW¼ sec. 20, T. 94 N., R. 22 W. Drilled stock well, diameter 5 inches, depth 104 feet. Measuring point, top of ⅜-inch hole in pump base, 1.0 foot above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 21, 3.71.

94-22-24J1. ----------. NE¼SE¼ sec. 24, T. 94 N., R. 22 W. Abandoned bored well, diameter 10 inches, depth 34.0 feet. Measuring point, top of concrete curb, 1.0 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Sept. 26, 12.24.

94-22-24J2. Town of Thornton. NE¼SE¼ sec. 24, T. 94 N., R. 22 W. Drilled municipal well, diameter 8 inches, depth 290 feet. Measuring point, top of breather hole in pump base, 1.8 feet above land surface. Equipped with 7.5 horsepower turbine pump. Taps water in limestone. Town supply. Water level, in feet below measuring point, 1941: Sept. 26, 74.75.

94-22-24J3. Mel Bowen. NE¼SE¼ sec. 24, T. 94 N., R. 22 W. Drilled domestic well, diameter 4 inches, depth 120.6 feet. Measuring point, top of casing at land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Sept. 26, 20.72.

Cerro Gordo County--Continued

94-21-5R1. Lauritz Schoneman. SE¼SE¼ sec. 5, T. 94 N., R. 21 W. Drilled domestic and stock well, diameter 5 inches, depth 58.6 feet. Measuring point, top of hole in pump base, 0.9 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: June 13, 15.44; Oct. 24, 16.40.

94-21-10D2. ---------- NW¼NW¼ sec. 10, T. 94 N., R. 21 W. Unused drilled well, diameter 5 inches, depth 56.0 feet. Measuring point, top of casing, 0.4 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Nov. 4, 17.05.

94-21-24A1. Titus Management Company. NE¼NE¼ sec. 24, T. 94 N., R. 21 W. Drilled stock well, diameter 5 inches, depth 35.5 feet. Measuring point, top of casing 2.0 feet above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 24, 7.62.

94-21-28R1. School District. SE¼SE¼ sec. 28, T. 94 N., R. 21 W. Unused drilled well, diameter 6 inches, depth 40.0 feet. Measuring point, top of casing, 0.3 foot above land surface. Water level, in feet below measuring point, 1941: Oct. 23, 3.83.

94-20-3K1. City of Rockwell. NW¼SE¼ sec. 3, T. 94 N., R. 20 W. Abandoned drilled well, diameter 8 inches, depth 230 feet. Measuring point, top of casing, 2.0 feet above land surface. Taps water in limestone. Water level, in feet below measuring point, 1941: Nov. 19, 7.76.

94-20-5P1. James P. Conrin. SE¼SW¼ sec. 5, T. 94 N., R. 20 W. Domestic and stock well, diameter 6 inches, depth 42.8 feet. Measuring point, top of casing, 5.8 feet below land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 23, 12.56.

94-20-22H2. Mike Curley. SE¼NE¼ sec. 22, T. 94 N., R. 20 W. Unused drilled well, diameter 5 inches, depth 39.0 feet. Measuring point, top of casing, 0.5 foot above land surface. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 22, 16.35.

94-20-25J1. Equitable Life Assurance Society. NW¼SE¼ sec. 25, T. 94 N., R. 20 W. Drilled domestic and stock well, diameter 5 inches, reported depth 278 feet. Measuring point, bottom of hole in casing, 0.9 foot above land surface. Taps water in limestone. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 23, 19.20.

94-20-25J2. Equitable Life Assurance Society. NE¼SE¼ sec. 25, T. 94 N., R. 20 W. Unused drilled well, diameter 5 inches, depth 36.0 feet. Measuring point, top of casing, 1.3 feet above land surface. Water level, in feet below measuring point, 1941: Oct. 23, 6.28.

94-19-3N1. ---------- SW¼SW¼ sec. 3, T. 94 N., R. 19 W. Drilled domestic and stock well, diameter 5 inches, depth 41.0 feet. Measuring point, top of casing, 0.2 foot above land surface. Equipped with lift pump and gasoline engine. Water level, in feet below measuring point, 1941: Oct. 6, 8.20.

94-19-16R1. Edmond Kelsh. SE¼SE¼ sec. 16, T. 94 N., R. 19 W. Drilled domestic and stock well, diameter 5 inches, depth 30.8 feet. Measuring point, top of casing, 1.25 feet above land surface. Water level, in feet below land surface, 1941: Oct. 7, 13.00.

94-19-21P1. William Hogan Estate. SE¼SW¼ sec. 21, T. 94 N., R. 19 W. Drilled domestic and stock well, diameter 6 inches, depth 55.8 feet. Measuring point, top of casing, 1.2 feet above land surface. Equipped with lift pump and windmill. Water level, in feet below measuring point, 1941: Oct. 7, 31.97.

Cerro Gordo County--Continued

94-19-25N1. ----------. SW¼SW¼ sec. 25, T. 94 N., R. 19 W. Bored domestic well, diameter 6 inches, depth 19.2 feet. Equipped with lift pump. Water level, in feet below measuring point, 1941: Oct. 8, 2.96.

Cherokee County

92-40-26P1. Owner's number 3 south. City of Cherokee. Water level measurements by D. Kennedy, Cherokee Water Works.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Feb. 12	a 34.07	Apr. 5	b 37.67	July 30	b 45.5
Apr. 5	17.5	July 30	23.75		

Clay County

96-35-2P1. Eva D. Monselle. Water level, in feet below measuring point, 1941: Feb. 12, 30.44. Measurements discontinued.

96-35-3R1. Allis Wilson.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	6.17	Apr. 22	4.47	June 18	5.15	Aug. 20	7.39
Mar. 21	4.85	May 21	6.59	July 22	6.05	Dec. 11	4.80

Clayton County

94-4-4L1. ----------. No measurements made in 1941.

Clinton County

81-6E-22H1. Owner's number 2. E. I. duPont de Nemours & Company.[c/]

Water level, in feet above mean sea level, 1941

May 8	561.25	June 17	555.2	July 29	550.6	Sept. 9	f 548.1
13	d 550.4	23	553.6	Aug. 5	549.9	Oct. 10	f 547.6
20	558.9	July 1	555.7	12	(e)	17	549.9
27	559.6	8	553.2	20	548.3	24	549.5
June 4	558.0	15	552.5	26	549.5	31	550.1
10	557.1	22	552.5	Sept. 2	e 548.1	Nov. 14	d 545.7

81-7E-6K1. National Biscuit Company. Water levels, in feet below measuring point, 1941: Mar. 20, 50.35; Dec. 23, 58.55.

a Pump stopped a short time before measurement.
b Pumping.
c All measurements made by E. I. duPont de Nemours & Company.
d Pump in operation.
e Water level below bottom of air line.
f Pump shut down for 5 minutes.

Dickinson County

99-36-6G1. ----------. SW¼NE¼ sec. 6, T. 99 N., R. 36 W. Unused bored well, diameter 16 inches, depth 34.4 feet. Measuring point, top of east curb, 2.0 feet above land surface. Equipped with pitcher pump.

Water level, in feet below measuring point, 1940-41

Date	Water level	Date	Water level	Date	Water level
Dec. 20, 1940	8.50	Apr. 22, 1941	3.96	July 22, 1941	6.10
Feb. 12, 1941	5.84	May 20	5.66	Dec. 10	4.60
Mar. 21	5.70				

Decatur County

69-25-29R1. No measurement made in 1941.

Emmet County

100-32-11R1. Okamanpedan State Park. Water level, in feet below measuring point, 1941: Dec. 10, 62.48.

99-34-14B1. No measurements made in 1941.

99-32-10E1. C. E. Birney.

Water level, in feet below measuring point, 1941

Mar. 21	6.00	May 21	5.32	Dec. 10	4.09
Apr. 18	3.96	Aug. 20	7.61		

99-31-31J1. Chicago and Northwestern Railroad. NE¼SE¼ sec. 31, T. 99 N., R. 31 W. Abandoned drilled well, diameter 6 inches, reported depth 321 feet. Measuring point, top of plank covering over well pit. Water level, in feet below measuring point, 1941: Aug. 20, 84.15.

Hamilton County

86-25-5E1. No measurements made in 1941.

Hardin County

89-20-7E1. Wm. H. Gilbert. SW¼NW¼ sec. 7, T. 89 N., R. 20 W. Bored domestic and stock well, diameter 16 inches, depth 46.5 feet. Measuring point, top of wood plank pump platform, 0.2 feet above land surface. Equipped with lift pump. Water levels, in feet below measuring point, 1941: Dec. 13, 18.02; Dec. 21, 17.5; Dec. 28, 16.75.

Harrison County

80-42-11Q1. No measurements made in 1941.

80-41-20M1. Mutual Benefit Life Insurance Company. Water level, in feet below measuring point, 1941: Aug. 28, 76.03.

Harrison County--Continued

79-41-34-N1. Mutual Benefit Life Insurance Company. Water levels, in feet below measuring point, 1941: Mar. 18, 55.70; Apr. 17, 61.14; July 28, 58.10; Aug. 28, 54.15.

78-42-12Q1. Mutual Benefit Life Insurance Company. Water levels, in feet below measuring point, 1941: Feb. 12, 22.60; July 28, 24.16; Aug. 28, 26.51; Dec. 20, 25.07.

78-42-11A1. Mutual Benefit Life Insurance Company.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Feb. 12	27.91	Apr. 17	27.88	Dec. 20	27.75
Mar. 18	29.09	Aug. 28	35.18		

Ida County

89-40-35D1. No measurements made in 1941.

89-39-12L1. Measurements discontinued.

Jasper County

80-18-31C1. Union Central Life Insurance Company (former owner); Maynard Lust (new owner). Water levels, in feet below measuring point, 1941: Feb. 11, 21.72; Sept. 18, 22.36; Dec. 5, 22.90.

Johnson County

80-5-9K1. Measurements discontinued.

80-5-9K2. United States Geological Survey. Equipped with water-level recorder. Highest water level observed from recorder charts for 1941 was 2.34 feet below measuring point on Nov. 1, and lowest observed water level was 7.52 feet below measuring point on Sept. 7.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Jan. 5	12:01 p.m.	5.19	May 11	8:40 a.m.	5.26
12	12:01 p.m.	5.70	18	12:30 p.m.	4.56
19	10:00 a.m.	6.00	25	4.45 p.m.	5.21
26	9:30 a.m.	5.73	June 1	8:30 a.m.	5.56
Feb. 2	10:30 a.m.	5.73	8	8:00 p.m.	5.65
9	9:30 a.m.	5.76	15	9:00 a.m.	3.60
16	10:00 a.m.	3.98	22	8:30 a.m.	5.13
23	8:30 a.m.	5.14	29	9:00 a.m.	4.54
Mar. 1	10:10 a.m.	5.50	July 7	7:30 p.m.	3.98
9	1:10 p.m.	5.51	13	12:30 p.m.	4.40
16	9:15 a.m.	4.18	20	10:30 a.m.	5.11
23	9:50 a.m.	3.30	27	8:00 p.m.	5.82
30	8:30 a.m.	3.87	Aug. 3	6.00 p.m.	6.30
Apr. 6	8:10 a.m.	3.05	10	4:00 p.m.	6.70
13	1:00 p.m.	3.96	18	5:00 p.m.	6.52
20	1:40 p.m.	3.15	24	2:00 p.m.	7.00
27	9:10 a.m.	4.42	Sept. 1	3:00 p.m.	7.44
May 4	9:00 a.m.	4.97	7	4:00 p.m.	7.50

Johnson County--Continued

80-5-9K2.--Continued.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Sept.14	1:00 p.m.	4.65	Nov. 16	1:50 p.m.	3.50
21	1:10 p.m.	5.45	23	2:00 p.m.	3.77
28	1:20 p.m.	5.89	30	1:55 p.m.	4.05
Oct. 5	1:30 p.m.	3.45	Dec. 7	2:05 p.m.	4.35
12	1:50 p.m.	3.20	14	1:50 p.m.	4.72
26	4:10 p.m.	2.52	21	2:15 p.m.	4.68
Nov. 2	11:00 a.m.	2.50	28	1:40 p.m.	3.40
9	2:35 p.m.	2.85			

80-5-22M1. Chicago, Rock Island, and Pacific Railroad. NW¼SW¼ sec.22, T. 80 N., R. 5 W. Abandoned dug well, diameter 4 feet, depth 19.5. Measuring point, top of concrete curb, 0.3 foot above land surface. Water-level recorder maintained on well since Dec. 7, 1941. Measurements by Maurice Albertson, State University of Iowa.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 24	6.25	Dec. 7	12.08	Dec. 13	12.43	Dec. 18	12.75
Dec. 6	12.13	10	12.43	14	12.56	26	11.56

80-5-22M2. Chicago, Rock Island, and Pacific Railroad. NW¼SW¼ sec. 22, T. 80 N., R. 5 W. Abandoned drilled well, diameter 4 3/4 inches, depth 82.5 feet. Measuring point, top of concrete curb, 0.3 foot above land surface. Measurements by Maurice Albertson, State University of Iowa.

Water level, in feet below measuring point, 1941

Dec. 6	16.60	Dec. 10	16.73	Dec. 14	17.25	Dec. 26	15.73
7	16.28	13	16.63	18	16.74		

79-6-10N1. Measurements discontinued.

Linn County

(Indian Creek Project of the Soil Conservation Service)

85-6-19A1. United States Geological Survey.

Water level, in feet below measuring point, 1941

Jan. 27	5.26	Apr. 14	5.09	June 23	5.43	Sept.18	5.74
Feb. 7	5.30	28	5.17	July 7	5.10	29	5.27
26	5.51	May 12	5.57	21	5.50	Oct. 27	4.10
Mar. 18	5.20	26	6.05	Aug. 11	6.67	Nov. 25	4.85
31	4.89	June 9	4.24	29	7.74	Dec. 22	4.87

85-6-26D1. United States Geological Survey.

Water level, in feet below measuring point, 1941

Jan. 27	4.17	Apr. 14	1.37	July 21	4.38	Sept.29	4.75
Feb. 7	4.28	May 12	2.82	Aug. 11	5.40	Oct. 27	1.36
26	4.06	26	3.14	29	6.40	Nov. 25	1.50
Mar. 18	4.07	June 23	3.09	Sept.18	3.37	Dec. 22	1.75
31	1.23						

Linn County--Continued

85-6-29B1. Earl Balderson.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	64.83	Apr. 14	64.04	June 23	62.41	Sept.18	63.55
Feb. 7	65.02	28	63.52	July 7	62.30	29	63.75
26	62.73	May 12	62.70	21	62.57	Oct. 27	62.62
Mar. 18	64.52	26	62.55	Aug. 11	63.39	Nov. 25	60.17
31	64.20	June 9	62.35	29	64.09	Dec. 22	59.85

84-7-13E1. Alfred Rinderknecht.

Water level, in feet below measuring point, 1941

Jan. 27	8.00	Apr. 14	5.26	June 23	5.00	Sept.18	5.67
Feb. 7	7.80	28	4.72	July 7	5.17	29	6.81
26	7.32	May 12	5.18	21	5.71	Oct. 27	4.40
Mar. 18	7.21	26	5.00	Aug. 11	6.89	Nov. 25	3.90
31	6.00	June 9	5.12	29	8.06	Dec. 22	4.45

84-6-20N1. United States Geological Survey.

Water level, in feet below measuring point, 1941

Jan. 27	7.13	Apr. 14	4.73	June 23	5.19	Sept.18	4.95
Feb. 7	7.09	28	4.70	July 7	5.26	29	5.68
26	6.28	May 12	5.68	21	6.06	Oct. 27	2.80
Mar. 18	6.00	26	6.11	Aug. 11	7.37	Nov. 25	3.84
31	5.35	June 9	5.14	29	8.39	Dec. 22	4.64

84-6-22F1. C. A. Wissler.

Water level, in feet below measuring point, 1941

Jan. 27	8.88	Apr. 14	5.02	July 7	6.27	Sept.18	7.64
Feb. 7	8.83	28	4.59	23	6.50	29	7.57
26	8.15	May 12	5.32	Aug. 11	7.79	Nov. 25	4.49
Mar. 18	8.15	26	5.90	29	8.56	Dec. 22	5.37
31	6.54	June 23	5.61				

(Cedar Rapids Project)

83-7-1B1 City of Marion. NE¼NW¼ sec. 1, T. 83 N., R. 7 W. Drilled well, diameter 12 inches, reported depth, 437 feet. Measuring point, top of casing, 0.8 foot above land surface, Feb. 25 to Aug. 19, 1941. Beginning Sept. 18, 1941, measuring point is top of ½-inch hole in pump base, 0.30 foot above top of casing. Equipped with turbine pump.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Feb. 25		8.75	June 2	4:15 p.m.	7.40
Mar. 3	11:15 a.m.	8.60	9	1:30 p.m.	7.26
10	2:45 p.m.	8.30	16	2:20 p.m.	7.04
27	11:20 a.m.	7.58	23	12:55 p.m.	7.40
31	12:05 p.m.	7.53	July 7	1:05 p.m.	7.43
Apr. 14	11:30 a.m.	7.17	14	1:00 p.m.	7.56
21	11:50 a.m.	6.75	21	12:40 p.m.	7.69
28	11:00 a.m.	6.95	Aug. 4	12:15 p.m.	8.38
May 5	11:30 a.m.	6.95	11	11:35 a.m.	8.31
12	11:20 a.m.	7.18	19	12:05 p.m.	8.47
19	1:15 p.m.	7.28	Nov. 25	2:00 p.m.	a 6.19
26	1:40 p.m.	7.43			

a New Measuring point.

Linn County--Continued

83-7-2P1. Hollenbeck.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Jan. 6	1:50 p.m.	32.06	June 16	2:30 p.m.	30.94
27	1:40 p.m.	31.86	23	2:30 p.m.	30.78
Feb. 7	3:30 p.m.	31.73	July 7	2:30 p.m.	31.15
24	1:55 p.m.	31.36	14	1:10 p.m.	31.27
Mar. 17	12:30 p.m.	31.39	21	2:25 p.m.	31.40
27	11:30 a.m.	31.09	Aug. 4	12:30 p.m.	31.64
Apr. 14	12:50 p.m.	30.08	11	1:05 p.m.	31.75
21	12:10 p.m.	29.90	19	12:10 p.m.	31.91
28	12:25 p.m.	29.25	Sept.18	2:20 p.m.	29.67
May 5	11:50 a.m.	29.62	29	12:40 p.m.	30.11
12	12:30 p.m.	30.18	Oct. 13	2:10 p.m.	28.30
19	1:20 p.m.	30.59	27	12:55 p.m.	27.45
26	3:00 p.m.	30.89	Nov. 25	3:15 p.m.	28.14
June 2	4:20 p.m.	31.11	Dec. 29	1:55 p.m.	30.90
9	2:55 p.m.	31.20			

83-7-6B1. Schrimper Estate.

Water level, in feet above measuring point, 1941

Jan. 6	1:25 p.m.	70.67	June 16	2:05 p.m.	62.76
Feb. 3	11:45 a.m.	69.70	23	12:45 p.m.	60.75
7	1:15 p.m.	69.26	July 7	12.35 p.m.	61.65
24	1:20 p.m.	68.09	14	12:50 p.m.	60.56
Mar. 27	11:10 a.m.	65.75	21	12:30 p.m.	63.00
Apr. 14	11:15 a.m.	65.33	Aug. 4	12:05 p.m.	65.86
21	11:30 a.m.	62.74	11	11:15 a.m.	66.52
28	10:45 a.m.	62.26	19	11:50 a.m.	67.14
May 5	11:15 a.m.	60.73	Sept.18	12:15 p.m.	66.70
12	11:05 a.m.	60.75	29	11:00 a.m.	66.80
19	12:55 p.m.	62.51	Oct. 13	1:50 p.m.	62.33
26	1:20 p.m.	64.04	27	11:25 a.m.	61.05
June 2	4:05 p.m.	63.34	Nov. 25	1:50 p.m.	57.80
9	1:05 p.m.	64.32			

83-7-11E1. Louis Maresh. (On 36th Street N. E., midway between C Ave. N. E. and 1st Ave. E.). SW¼NW¼ sec. 11, T. 83 N., R. 7 W. Unused drilled well, diameter 10 inches, depth 195.0 feet. Measuring point, top of casing, at land surface. Water level affected by pumping. Water-level recorder maintained on well since April 7, 1941. Highest water level observed from recorder charts for 1941 was 71.56 feet below measuring point on June 26 and lowest observed water level was 86.85 feet below measuring point on April 30, during a pumping test on a well about 3,000 feet distant.

Water level, in feet below measuring point, 1941

Mar. 5	.....	76.09	June 16	2:30 p.m.	71.78
10	2:30 p.m.	75.88	23	4:15 p.m.	71.60
17	12:40 p.m.	76.19	30	8:35 a.m.	71.64
27	11:40 a.m.	75.51	July 7	2:40 p.m.	71.68
31	12:15 p.m.	75.37	14	1:15 p.m.	71.88
Apr. 7	4:40 p.m.	75.00	21	2:30 p.m.	71.96
14	1:00 p.m.	74.63	28	11:45 a.m.	74.30
21	12:15 p.m.	74.31	Aug. 4	12:35 p.m.	75.32
28	12:30 p.m.	a 85.57	11	1:15 p.m.	75.88
May 5	12:05 p.m.	77.64	18	6.55 p.m.	76.09
12	12:40 p.m.	74.00	Sept. 5	2:45 p.m.	76.45
19	1:35 p.m.	72.88	12	2:40 p.m.	75.07
26	3:15 p.m.	72.41	18	2:40 p.m.	73.89
June 2	4.25 p.m.	72.34	22	1:30 p.m.	74.43
9	3:05 p.m.	72.15	29	12:45 p.m.	73.86

a Pumping test on well about 3,000 feet distant in progress.

Linn County--Continued

83-7-11E1.--Continued.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Oct. 6	10:45 a.m.	72.89	Nov. 25	11:25 a.m.	67.84
13	2:15 p.m.	71.99	Dec. 2	11:00 a.m.	67.95
20	3:35 p.m.	71.39	8	4:00 p.m.	67.93
27	3:00 p.m.	70.77	15	1:15 p.m.	67.91
Nov. 3	6:30 p.m.	69.55	22	10:45 a.m.	68.03
10	12:45 p.m.	68.79	29	2:05 p.m.	68.20
17	3:00 p.m.	68.14			

83-7-16D1. City of Cedar Rapids (Shaver Park).

Water level, in feet below measuring point, 1941

Jan. 6	12:55 p.m.	91.61	June 16	1:55 p.m.	89.37
Feb. 3	10:40 a.m.	91.74	23	12:30 p.m.	89.52
7	12:50 p.m.	91.33	July 7	12:25 p.m.	89.90
24	12:45 p.m.	91.20	14	12:40 p.m.	90.24
Mar. 17	11:15 a.m.	91.30	21	12:20 p.m.	90.25
27	10:50 a.m.	90.56	Aug. 4	11:55 a.m.	90.29
Apr. 14	10:45 a.m.	90.52	11	11:05 a.m.	90.54
21	11:10 a.m.	89.36	19	11:40 a.m.	91.02
28	10:30 a.m.	89.19	Sept. 18	12:05 p.m.	90.12
May 5	11:00 a.m.	89.10	29	10:50 a.m.	90.48
12	10:50 a.m.	89.44	Oct. 13	1:35 p.m.	89.10
19	12:45 p.m.	89.56	27	11:10 a.m.	87.59
26	1:05 p.m.	89.44	Nov. 25	1:30 p.m.	86.82
June 2	3:55 p.m.	89.54	Dec. 29	11:55 a.m.	87.67
9	12:40 p.m.	89.40			

83-7-16J1. City of Cedar Rapids (Daniel Park).

Water level, in feet below measuring point, 1941

Jan. 6	12:35 p.m.	34.72	June 16	1:45 p.m.	34.47
27	3:55 p.m.	34.78	23	12:15 p.m.	34.45
Feb. 7	12:35 p.m.	34.46	July 7	12:15 p.m.	34.28
24	12:30 p.m.	34.55	14	12:30 p.m.	34.60
Mar. 17	11:30 a.m.	34.90	21	12:10 p.m.	34.43
27	10:40 a.m.	34.59	Aug. 4	11:40 a.m.	35.08
Apr. 14	10:35 a.m.	34.38	11	10:55 a.m.	34.25
21	11:05 a.m.	34.76	19	11:30 a.m.	35.06
28	10:25 a.m.	34.44	Sept. 18	11:50 a.m.	35.10
May 5	10:50 a.m.	34.24	29	10:45 a.m.	34.98
12	10:45 a.m.	34.34	Oct. 13	1:25 p.m.	34.36
19	12:40 p.m.	34.37	27	11:00 a.m.	34.18
26	12:50 p.m.	34.20	Nov. 25	1:20 p.m.	33.05
June 2	3:50 p.m.	32.48	Dec. 29	11:40 a.m.	32.86
9	12:30 p.m.	34.35			

83-7-17L1. City of Cedar Rapids (Ellis Park).

Water level, in feet below measuring point, 1941

Jan. 6	9:50 a.m.	20.56	June 16	1:15 p.m.	19.88
27	10:50 a.m.	20.87	23	11:35 a.m.	20.16
Feb. 7	11:00 a.m.	20.69	July 7	11:55 a.m.	20.30
24	11:45 a.m.	20.56	14	11:00 a.m.	20.70
Mar. 17	11:00 a.m.	19.98	21	11:40 a.m.	20.88
27	10:15 a.m.	19.55	Aug. 4	11:35 a.m.	21.27
Apr. 14	10:25 a.m.	19.58	11	10:45 a.m.	21.26
21	10:50 a.m.	19.65	19	11:10 a.m.	21.41
28	10:05 a.m.	19.62	Sept. 18	10:55 a.m.	20.47
May 5	10:25 a.m.	20.80	29	10:25 a.m.	20.85
12	10:30 a.m.	20.27	Oct. 13	1:00 p.m.	19.79
19	12:05 p.m.	20.49	27	10:50 a.m.	19.65
26	12:10 p.m.	20.43	Nov. 25	1:10 p.m.	19.42
June 2	3:40 p.m.	20.28	Dec. 29	11:15 p.m.	19.83
9	12:10 p.m.	20.02			

Linn County--Continued

83-7-21L1. City of Cedar Rapids. Equipped with water-level recorder Water level affected by pumping from nearby industrial wells. Highest water level observed from recorder charts for 1941 was 18.91 feet below measuring point on Jan. 13 and lowest was 46.6 feet below measuring point (extrapolated from partial record) on Aug. 14.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Jan. 6	10:10 a.m.	23.02	July 21	12:01 p.m.	36.64
13	9:47 a.m.	22.19	28	12:20 p.m.	37.71
20	3:00 p.m.	24.40	Sept. 5	3:40 p.m.	42.18
27	11:05 a.m.	23.46	18	11:20 a.m.	33.68
Feb. 3	1:25 p.m.	24.44	Oct. 5	10:30 a.m.	31.52
7	11:05 a.m.	24.28	27	4:20 p.m.	32.42
Mar. 5	1:25 p.m.	23.36	Nov. 10	12:30 p.m.	30.27
May 12	4:10 p.m.	27.17	Dec. 15	1:45 p.m.	32.92

83-7-21P1. Kresge Company. (Southwest corner of 1st Ave. S. E. and 3rd Street N. E.). SE¼SW¼ sec. 21, T. 83 N., R. 7 W. Drilled air-conditioning well. Measuring point, top of 3/8-inch hole in pump base, 6.41 feet below manhole cover at street level, 0.60 foot above top of concrete curb. Equipped with 25 horsepower electric turbine pump. Water levels, in feet below measuring point, 1941: Mar. 6, 27.14; Apr. 7, 12:01 p.m., 25.89; May 5, 2:45 p.m., a/ 35.95; Dec. 29, 3:55 p.m., 34.70.

83-7-21Q1. Iowa Theatre (Southeast corner of 1st Ave. S.E. and 3rd Street N.E.). SW¼SE¼ sec. 21, T. 83 N., R. 7 W. Drilled industrial well, diameter 10 inches, reported depth 428 feet. Measuring point, top of pump base, 5.65 feet below manhole cover at street level. Equipped with 20 horsepower electric turbine pump. Water levels, in feet below measuring point, 1941: Jan. 13, 4:00 p.m., 24.32; Mar. 5, 24.89; Apr. 7, 11:15 a.m., 24.24; Dec. 29, 4:20 p.m., 32.30.

83-7-28G2. Cedar Rapids Gas Company. Equipped with water-level recorder. Water level affected by pumping from nearby wells, particularly a group of industrial wells 1,000 to 1,500 feet distant. Highest water level observed from recorder charts for 1941 was 32.93 feet below measuring point on Apr. 21 and lowest was 78.91 feet below measuring point on Aug. 1. Maximum recorded daily fluctuation was 17.67 feet on July 7, 1941, and maximum estimated daily fluctuation extrapolated from partial record was 21.4 feet on June 30, 1941. Maximum weekly fluctuation was 29.85 feet for the week ending July 14, 1941.

Water level, in feet below measuring point, 1941

Jan. 6	2:55 p.m.	43.37	May 12	1:55 p.m.	43.20
13	2:35 p.m.	43.01	19	2:35 p.m.	48.06
20	2:10 p.m.	43.65	26	4:15 p.m.	58.02
27	4:30 p.m.	47.35	June 2	5:15 p.m.	63.30
Feb. 3	2:43 p.m.	46.17	9	4:05 p.m.	51.15
10	11:40 a.m.	39.03	16	3:30 p.m.	47.34
17	9:50 a.m.	39.37	23	3:25 p.m.	62.38
24	3:10 p.m.	43.46	July 7	3:30 p.m.	58.35
Mar. 3	10:15 a.m.	37.32	14	2:00 p.m.	56.47
10	2:00 p.m.	44.10	21	3:15 p.m.	59.25
17	2:10 p.m.	42.59	28	10:35 a.m.	54.65
24	12:15 p.m.	44.24	Aug. 4	1:20 p.m.	65.98
31	12:30 p.m.	39.06	11	2:15 p.m.	63.13
Apr. 7	5:10 p.m.	42.86	18	5:30 p.m.	59.66
14	2:35 p.m.	44.38	29	6:45 p.m.	67.31
21	1:30 p.m.	37.97	Sept. 5	2:00 p.m.	68.14
28	2:15 p.m.	41.88	12	3:25 p.m.	59.90
May 5	2:50 p.m.	46.57	18	3:40 p.m.	63.75

a Pumped heavily recently.

Linn County--Continued

83-7-28G2.--Continued.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Sept. 22	12:15 p.m.	56.33	Nov. 17	3:00 p.m.	50.62
29	2:15 p.m.	56.26	25	11:45 a.m.	48.98
Oct. 6	10:00 a.m.	53.64	Dec. 2	10:45 a.m.	48.94
13	4:30 p.m.	54.57	8	3:30 p.m.	59.95
20	3:05 p.m.	50.94	15	1:50 p.m.	52.85
27	2:20 p.m.	49.85	22	10:15 a.m.	50.19
Nov. 3	6:00 p.m.	61.22	29	10:35 a.m.	50.12
10	12:10 p.m.	50.88			

83-7-23G1. City of Cedar Rapids (Bever Park).

Water level, in feet below measuring point, 1941

Jan. 6	2:00 p.m.	4.76	June 16	2:55 p.m.	4.72
27	1:20 p.m.	4.80	23	2:50 p.m.	5.00
Feb. 7	3:45 p.m.	4.77	July 7	3:00 p.m.	5.02
24	2:05 p.m.	4.73	14	1:45 p.m.	5.15
Mar. 17	12:55 p.m.	4.64	21	2:45 p.m.	5.24
27	11:50 a.m.	4.57	Aug. 4	12:50 p.m.	5.44
Apr. 14	1:50 p.m.	4.53	11	1:30 p.m.	5.70
21	12:45 p.m.	4.42	19	12:20 p.m.	5.68
28	1:25 p.m.	4.47	Sept. 18	2:55 p.m.	5.20
May 5	1:10 p.m.	4.49	29	1:35 p.m.	5.17
12	1:20 p.m.	4.55	Oct. 13	2:30 p.m.	4.91
19	2:00 p.m.	4.70	27	1:30 p.m.	4.60
26	3:40 p.m.	4.68	Nov. 25	3:35 p.m.	4.44
June 2	5:00 p.m.	4.73	Dec. 29	2:30 p.m.	4.30
9	3:25 p.m.	4.57			

83-7-24A1. John Zrudsky.

Water level, in feet below measuring point, 1941

Jan. 6	2:15 p.m.	30.32	June 16	3:00 p.m.	29.63
27	12:30 p.m.	30.37	23	2:50 p.m.	29.40
Feb. 7	4:15 p.m.	30.46	July 7	3:15 p.m.	29.64
24	2:20 p.m.	29.94	14	1:55 p.m.	30.62
Mar. 17	1:10 p.m.	30.09	21	2:55 p.m.	30.24
27	12:01 p.m.	29.50	Aug. 4	1:00 p.m.	30.38
Apr. 14	2:00 p.m.	29.47	11	1:40 p.m.	30.50
21	12:55 p.m.	28.54	19	12:30 p.m.	30.80
28	1:40 p.m.	28.92	Sept. 18	3:15 p.m.	29.35
May 5	1:20 p.m.	29.23	29	1:45 p.m.	29.29
12	1:30 p.m.	29.97	Oct. 13	2:40 p.m.	28.97
19	2:15 p.m.	29.77	27	1:40 p.m.	28.29
26	3:50 p.m.	29.56	Nov. 25	3:45 p.m.	27.71
June 2	5:05 p.m.	29.35	Dec. 29	2:55 p.m.	a 33.36
9	3:30 p.m.	29.60			

83-7-32G1. Floyd Felter.

Water level, in feet below measuring point, 1941

Jan. 6	9:35 a.m.	81.88	May 12	10:25 a.m.	81.34
27	10:25 a.m.	81.97	19	11:50 a.m.	81.51
Feb. 7	10:30 a.m.	81.70	26	12:01 p.m.	81.72
24	11:30 a.m.	81.46	June 2	3:30 p.m.	82.27
Mar. 17	10:30 a.m.	81.96	9	12:05 p.m.	82.27
27	10:05 a.m.	81.66	16	1:05 p.m.	81.81
Apr. 14	10:10 a.m.	81.49	23	11:20 a.m.	81.86
21	10:40 a.m.	81.56	July 7	11:35 a.m.	81.97
28	9:55 a.m.	81.32	14	10:50 a.m.	82.14
May 5	10:10 a.m.	81.25	21	11:30 a.m.	82.13

a Pumped a short time before measurement.

Linn County--Continued

83-7-32G1.--Continued.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Aug. 4	11:25 a.m.	82.96	Oct. 13	12:45 p.m.	80.05
11	10:35 a.m.	83.48	27	10:40 a.m.	78.47
19	11:00 a.m.	82.93	Nov. 25	12:55 p.m.	77.25
Sept.18	10:45 a.m.	82.19	Dec. 29	10:25 a.m.	77.60
29	10:15 a.m.	81.89			

83-7-33F1.

Water level, in feet below measuring point, 1941

Jan. 6	9:25 a.m.	74.56	June 16	1:00 p.m.	74.18
27	10:10 a.m.	74.59	23	11:15 a.m.	74.14
Feb. 7	10:00 a.m.	74.56	July 7	11:30 a.m.	74.11
24	11:20 a.m.	74.55	14	10:40 a.m.	74.10
Mar. 17	10:10 a.m.	74.62	21	11:20 a.m.	74.01
27	9:50 a.m.	74.56	Aug. 4	11:20 a.m.	74.08
Apr. 14	10:00 a.m.	74.56	11	10:30 a.m.	74.07
21	10:30 a.m.	74.52	19	10:55 a.m.	74.09
28	9:45 a.m.	74.40	Sept.18	10:40 a.m.	73.84
May 5	10:05 a.m.	74.35	29	10:05 a.m.	73.80
12	10:20 a.m.	74.36	Oct. 13	12:35 p.m.	73.60
19	11:45 a.m.	74.37	27	10:30 a.m.	73.49
26	11:55 a.m.	74.43	Nov. 25	12:50 p.m.	72.80
June 2	3:15 p.m.	74.75	Dec. 29	10:10 a.m.	72.32
9	12:01 p.m.	74.43			

83-6-28B1. Measurements discontinued.

83-6-30B1. ------- Katz.

Water level, in feet below measuring point, 1941

Jan. 6	2:25 p.m.	52.58	June 16	3:15 p.m.	52.26
27	12:45 p.m.	52.66	23	3:00 p.m.	52.48
Feb. 7	4:30 p.m.	52.66	July 7	3:30 p.m.	53.36
24	2:30 p.m.	52.38	14	2:10 p.m.	52.02
Mar. 17	1:30 p.m.	52.56	21	3:00 p.m.	52.10
27	12:15 p.m.	52.06	Aug. 4	1:10 p.m.	52.37
Apr. 14	2:15 p.m.	52.60	11	1:50 p.m.	52.41
21	1:10 p.m.	51.76	19	12:40 p.m.	52.57
28	1:50 p.m.	51.57	Sept.18	3:30 p.m.	53.74
May 5	1:30 p.m.	51.76	29	1:50 p.m.	52.09
12	1:45 p.m.	51.90	Oct. 13	2:50 p.m.	51.75
19	2:20 p.m.	51.90	27	1:50 p.m.	51.76
26	4:00 p.m.	53.64	Nov. 25	3:55 p.m.	50.49
June 2	5:20 p.m.	51.97	Dec. 29	3:15 p.m.	51.00
9	3:40 p.m.	52.18			

Lyon County

99-44-26R1.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	10.46	Apr. 18	9.90	July 22	10.78	Dec. 10	11.36
Mar. 21	10.86	May 20	10.28	Aug. 20	11.30		

Lyon County--Continued

99-43-11H1.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	3.56	Apr. 18	2.43	July 22	3.98	Dec. 10	3.65
Mar. 21	2.80	May 20	3.44	Aug. 20	4.30		

98-48-24M1. A. C. Hanson.

Water level, in feet below measuring point, 1941

Feb. 28	a 18.58	Apr. 19	a 15.00	July 14	a 16.03	Dec. 23	c 19.75
Mar. 27	a 15.77	June 4	a 15.00	Aug. 20	b 18.83		

Madison County

76-28-2B1. Glen Newton.

Water level, in feet below measuring point, 1941

Feb. 11	18.03	May 28	18.12	Aug. 28	20.63	Oct. 28	18.80
Mar. 29	17.95	June 30	18.64	Sept.30	19.81	Nov. 28	18.85
Apr. 29	17.50	July 29	18.99				

Marion County

77-18-34C1. No measurements made in 1941.

75-20-22H1. Union Central Life Insurance Company.

Water level, in feet below measuring point, 1941

Jan. 28	13.07	Apr. 29	9.87	July 29	10.57	Oct. 28	5.71
Feb. 10	13.87	May 28	11.27	Aug. 29	11.50	Nov. 28	5.22
25	13.58	June 30	9.57	Sept.30	11.21	Dec. 21	5.44
Mar. 28	8.80						

75-20-29K1. J. D. Cleair.

Water level, in feet below measuring point, 1941

Jan. 28	12.05	Mar. 28	12.25	June 30	11.80	Sept.30	13.06
Feb. 10	11.72	Apr. 29	12.00	July 29	12.87	Oct. 28	d 11.35
25	12.12	May 28	12.05	Aug. 29	14.10		

75-20-31C1. Miss Amanda Elliot. Water levels, in feet below measuring point, 1941: Jan. 28, 2:15 p.m., 24.93; Feb. 10, 4.05 p.m., 23.76; Feb. 25, 11.35 a.m., 22.48; Apr. 29, 10:35 a.m., e/ 21.20.

75-20-31C2. Miss Amanda Elliot.

Water level, in feet below measuring point, 1941

Jan. 28	14.15	Apr. 29	15.00	July 29	15.98	Oct. 28	7.35
Feb. 10	13.68	May 28	18.47	Aug. 29	16.22	Nov. 28	7.44
25	11.17	June 30	17.05	Sept.30	15.83	Dec. 21	8.47
Mar. 28	12.50						

a No pumping since summer of 1940.
b Pumping 30 gallons per day.
c No pumping since fall of 1941.
d Well destroyed. Measurements discontinued on Oct. 28.
e Measurements discontinued on Apr. 29.

Marion County--Continued

74-21-26E1. Griesbaum Estate.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	12.88	Apr. 29	9.14	July 29	11.32	Oct. 28	5.60
Feb. 10	11.65	May 28	10.23	Aug. 29	13.08	Nov. 29	5.45
25	10.68	June 30	10.06	Sept.30	12.44	Dec. 21	6.33
Mar. 28	9.57						

74-20-2M1.

Water level, in feet below measuring point, 1941

Jan. 28	5.86	Apr. 29	4.80	July 29	4.28	Oct. 28	4.95
Feb. 10	5.59	May 28	4.75	Aug. 29	4.43	Nov. 29	3.40
25	5.41	June 30	3.91	Sept.30	3.65	Dec. 21	2.57
Mar. 28	4.80						

74-20-16M1. C. Wendall.

Water level, in feet below measuring point, 1941

Jan. 28	30.66	Feb. 25	31.16	Apr. 29	32.66	June 30 ab	33.00
Feb. 10	30.90	Mar. 28	32.00	May 28	33.30		

74-20-33D1. T. V. Beebout.

Water level, in feet below measuring point, 1941

Jan. 28	27.15	Apr. 29	27.10	July 29	26.94	Oct. 28	26.67
Feb. 10	27.15	May 28	27.07	Aug. 29	26.94	Nov. 29	26.52
25	27.17	June 30	27.06	Sept.30	26.75	Dec. 21	26.38
Mar. 28	27.14						

Muscatine County

76-2-14D1. Owner's test well 4. City of Muscatine. Water level, in feet below measuring point, 1941: Dec. 23, 13.30.

76-2-15A1. Owner's test well 5. City of Muscatine. Water level, in feet below measuring point, 1941: Dec. 23, 11.03.

O'Brien County

94-40-22J1. Illinois Central Railroad. Abandoned drilled well, diameter 10 to 6 inches, reported depth 520 feet. Measuring point, top of iron pump base, 0.10 foot above concrete floor and 0.30 foot below top of rail of main line. Taps water in Dakota sandstone. Water levels, in feet below measuring point, 1941: Mar. 28, 235.95; Aug. 26, 233.49; Dec. 10, 244.54.

a Measurement probably inaccurate.
b Measurements temporarily discontinued.

Osceola County

99-41-18C1. City of Sibley.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Feb. 12	1:20 p.m.	23.37	Aug. 20	4:55 p.m.	17.77
Apr. 18	12:55 p.m.	18.30	Dec. 10	3:00 p.m.	21.00
May 20	a 3:45 p.m.	18.06			

99-41-18C2. City of Sibley. Water levels, in feet below measuring point, 1941: Feb. 12, 1:30 p.m., 16.30; Mar. 21, 11:15 a.m., 15.99; Apr. 18, 1:00 p.m., 15.85; May 20, a/ .

Page County

69-36-31K1. City of Clarinda. Equipped with water-level recorder. Highest water level observed from recorder charts for 1941 was 14.58 feet below the measuring point on Nov. 2, and lowest observed water level was 24.15 feet below the measuring point on Sept. 1. Measurements by F. E. Allison, Water Superintendent.

Water level, in feet below measuring point, 1941

Jan. 2	4:45 p.m.	23.23	July 6	2:00 p.m.	19.08
9	4:30 p.m.	23.25	13	4:05 p.m.	20.08
16	4:30 p.m.	22.70	20	10:30 a.m.	20.74
23	4:00 p.m.	23.09	27	2:00 p.m.	21.38
31	4:00 p.m.	23.11	Aug. 3	4:00 p.m.	22.13
Feb. 8	10:00 a.m.	22.45	10	10:45 a.m.	22.57
15	3:40 p.m.	22.53	17	5:30 p.m.	22.98
22	9:50 a.m.	22.26	24	6:30 p.m.	23.31
Mar. 1	2:10 p.m.	22.03	31	3:00 p.m.	23.98
8	2:00 p.m.	22.17	Sept. 7	5:00 p.m.	23.48
15	2:35 p.m.	22.01	14	5:00 p.m.	23.75
23	3:20 p.m.	22.23	22	5:35 p.m.	21.66
29	3:25 p.m.	22.17	30	2:15 p.m.	21.82
Apr. 5	2:00 p.m.	22.32	Oct. 9	4:30 p.m.	19.00
12	4:35 p.m.	21.84	18	12:30 p.m.	19.00
19	3:40 p.m.	21.06	25	3:10 p.m.	15.97
26	7:00 p.m.	21.28	Nov. 2	11:15 a.m.	14.60
May 5	7:30 a.m.	21.13	9	9:20 a.m.	15.72
11	10:30 a.m.	21.60	16	10:10 a.m.	16.52
18	6:10 p.m.	21.70	23	4:00 p.m.	17.36
25	4:45 p.m.	21.17	30	10:15 a.m.	17.72
June 1	4:00 p.m.	21.01	Dec. 8	1:00 p.m.	18.36
8	4:00 p.m.	20.34	14	4:25 p.m.	18.66
15	4:10 p.m.	16.95	21	2:35 p.m.	18.88
22	6:00 p.m.	17.97	28	3:00 p.m.	18.65
29	6:15 p.m.	18.70			

Palo Alto County

(Vicinity of Lost Island Lake)

97-34-29N1.

Water level, in feet below measuring point, 1941

Feb. 12	5:30 p.m.	2.34	July 22	2:40 p.m.	2.60
Mar. 21	4:25 p.m.	2.28	Aug. 20	12:40 p.m.	4.55
May 21	12:50 p.m.	2.70	Dec. 11	11:20 a.m.	2.25
June 18	2:35 p.m.	2.44			

a Dry.

Palo Alto County--Continued

97-34-29N2.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Feb. 12	5:30 p.m.	0.76	July 22	2:40 p.m.	(a)
Mar. 21	4:25 p.m.	1.04	Aug. 20	12:40 p.m.	.77
May 21	12:55 p.m.	(a)	Dec. 11	11:20 a.m.	(a)
June 18	2:35 p.m.	(a)			

97-34-30Q1. Norman Broadwell.

Water level, in feet below measuring point, 1941

Feb. 12	5:35 p.m.	19.13	July 22	2:50 p.m.	18.29
Mar. 21	4:40 p.m.	18.72	Aug. 20	12:45 p.m.	19.01
May 21	1:10 p.m.	18.31	Dec. 11	11:30 a.m.	17.50
June 18	2:40 p.m.	18.05			

97-34-32P1. Lost Island State Park.

Water level, in feet below measuring point, 1941

Feb. 12	5:20 p.m.	11.86	June 18	2:20 p.m.	3.59
Mar. 21	4:10 p.m.	7.21	July 22	2:30 p.m.	4.39
Apr. 22	2:30 p.m.	4.45	Aug. 20	12:20 p.m.	5.78
May 21	12:35 p.m.	5.19	Dec. 11	10:30 a.m.	5.05

96-34-6J1. "Electric Park".

Water level, in feet below measuring point, 1941

Feb. 12	5:05 p.m.	5.36	June 18	2:10 p.m.	4.56
Mar. 21	3:50 p.m.	5.04	July 22	2:20 p.m.	4.71
Apr. 22	2:15 p.m.	4.66	Aug. 20	12:10 p.m.	5.29
May 21	12:30 p.m.	4.83	Dec. 11	10:20 a.m.	4.17

Plymouth County

91-48-19M1. No measurements made in 1941.

Polk County

79-22-22A1. J. G. Reed. Water levels, in feet below measuring point, 1941: Feb. 11, 5.50; Sept. 18, 6.74; Dec. 5, 3.57

Sac County

89-38-26A2. City of Schaller.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Mar. 20	221.85	May 27	221.46	Aug. 27	222.01
Apr. 17	221.40	June 17	221.97	Dec. 12	221.84

a Flowing.

Sac County--Continued

86-36-2C1. John Christian.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	3.70	Apr. 7	3.50	June 17	2.31	Aug. 27	8.38
Feb. 11	4.44	17	3.61	July 29	6.26	Dec. 12	6.32
Mar. 20	4.05	May 27	4.95				

86-36-2E1. Albert Kulver, Jr.

Water level, in feet below measuring point, 1941

Jan. 17	0.80	Apr. 7	0.60	June 17	0.10	Aug. 27	1.01
Feb. 11	.58	17	.57	July 29	.73	Dec. 12	1.54
Mar. 20	.60	May 27	.73				

86-36-4N1. Iowa State Conservation Commission.

Water level, in feet below measuring point, 1941

Jan. 17	a 6.80	Apr. 7	a 7.90	June 17	6.93	Aug. 27	8.87
Feb. 11	8.08	17	7.66	July 29	8.33	Dec. 12	8.62
Mar. 20	7.97	May 27	8.27				

Sioux County

95-45-5A1. City of Sioux Center. Water levels, in feet below measuring point, 1941: Aug. 25, 263.50; Dec. 10, 264.21.

94-45-17A1. City of Maurice. Water level, in feet below measuring point, 1941: Aug. 26, 122.0.

Story County

83-24-4Q1. Iowa State College. Water levels affected by changes in atmospheric pressure. Equipped with water-level recorder. Highest water level observed from recorder charts for 1941 was 42.98 feet below measuring point on Dec. 4, and lowest observed water level was 47.10 feet below measuring point on August 4. Measurements after Sept. 17 by J. B. Codlin.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Jan. 4	7:50 a.m.	44.93	May 3	7:50 a.m.	44.32
11	7:35 a.m.	44.88	10	7:45 a.m.	44.58
18	7:55 a.m.	44.87	17	7:45 a.m.	44.55
25	7:45 a.m.	44.80	24	7:30 a.m.	44.87
Feb. 1	7:50 a.m.	44.73	31	7:45 a.m.	45.04
8	7:55 a.m.	44.59	June 7	8:00 a.m.	44.42
15	7:50 a.m.	44.68	14	7:40 a.m.	44.14
22	7:55 a.m.	44.74	21	8:00 a.m.	44.72
Mar. 1	7:50 a.m.	44.61	28	7:45 a.m.	45.33
8	7:54 a.m.	44.51	July 5	10:00 a.m.	44.77
15	7:58 a.m.	44.34	12	7:45 a.m.	45.38
22	7:20 a.m.	44.60	19	7:50 a.m.	45.20
29	7:55 a.m.	44.52	26	7:40 a.m.	46.03
Apr. 5	7:50 a.m.	44.38	Sept. 17	5:00 p.m.	45.11
12	7:45 a.m.	44.44	23	8:30 p.m.	45.62
19	7:45 a.m.	44.20	30	8:00 a.m.	44.59
26	7:45 a.m.	44.49	Oct. 8	9:00 a.m.	44.24

a Measurement made by Iowa State Conservation Commission.

Story County--Continued

83-24-4Q1.--Continued.

Water level, in feet below measuring point, 1941

Date	Hour	Water level	Date	Hour	Water level
Oct. 14	11:00 a.m.	44.11	Nov. 21	11:15 a.m.	43.20
21	4:30 p.m.	43.94	25	11:00 a.m.	44.16
28	11:00 a.m.	43.92	Dec. 3	9:00 a.m.	43.25
Nov. 4	11:15 a.m.	43.35	9	10:00 a.m.	43.26
11	11:30 a.m.	43.34	19	11:30 a.m.	43.36

83-24-17R1. No measurements made in 1941.

83-24-20J1. Agricultural Engineering Experiment Station.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Mar. 18	20.14	May 19	21.20	Nov. 4	8.40
Apr. 16	19.33	Sept.18	18.01		

Warren County

76-25-8Q1. Iowa State College. Water levels, in feet below measuring point, 1941: Feb. 11, 14.53; Sept. 18, 13.87.

Wayne County

67-23-20Q1. No measurements made in 1941.

Woodbury County

89-48-23B1. Owner's Riverside Station west well. City of Sioux City. Water level measurements by Ed. Harbeck, Sioux City Water Works.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.00	Apr. 2	6.92	July 2	6.08	Oct. 2	7.50
Feb. 2	7.92	May 2	7.50	Aug. 2	7.08	Nov. 2	7.46
Mar. 2	7.79	June 2	6.79	Sept. 2	7.50	Dec. 2	7.54

89-47-22B1. Owner's Lowell 4. City of Sioux City. Water level measurements by N. L. Nelson, Chief Engineer, Sioux City Water Works.

Water level, in feet below measuring point, 1941

Jan. 2	a 35.50	Apr. 2	a 36.08	July 2	a 35.50	Oct. 2	a 36.42
Feb. 2	35.17	May 2	a 34.92	Aug. 2	a 37.17	Nov. 2	a 35.50
Mar. 2	a 36.25	June 2	a 36.00	Sept. 2	a 36.92	Dec. 2	a 36.67

a Nearby wells pumping.

IOWA AND MISSOURI

TARKIO CREEK AREA OF SOIL CONSERVATION SERVICE

By T. W. Robinson

The observation-well program in the Tarkio Creek area,[1/] in Iowa and an adjacent part of Missouri, was continued in 1941. Of the 75 wells under observation at the beginning of 1941, 4 wells (37, 43A, 69, and 77) were dropped during the year. The water-level measurements were made monthly, usually between the 25th and the end of the month. A total of 709 individual measurements of water levels was made during the year. The measurements were made by W. M. Mulnix until July 1 and by D. W. Knox for the remainder of the year.

Water-level measurements in 9 to 12 wells (1, 2, 5, 6, 7, 10, 11, 12, 14, 15, 16, 17) were used in computing the average water levels, in 1941, given in the following table.

Average water levels, in feet above assumed datum planes, in 9 to 12 observation wells, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 30-31	10.65	May 26-27	12.17	Sept.24-25	12.51
Feb. 24-25	11.47	June 27-28	14.79	Oct. 27-28	18.26
Mar. 27-28	11.55	July 24-25	13.90	Nov. 25-26	18.60
Apr. 24-25	11.72	Aug. 26-27	11.64	Dec. 26-29	18.30

The precipitation for the year at Shenandoah was 48.07 inches, which was 14.07 inches above normal. In response to this heavy precipitation, the greatest rise in water levels occurred since measurements were begun in May 1934. The average water level stood 7.71 feet higher in December 1941 than in December 1940. The water levels rose 4.20 feet from the end of December 1940 to the end of June 1941, and then declined 3.15 feet during July and August. During the extremely wet season from the end of August to the end of November, there was a rise of 6.96 feet, which was followed in December by a decline of 0.30 foot. A large part of the total rise took place in the months of September and October, when, according to the records of the United States Weather Bureau, a total of 23.11 inches of rain fell at Shenandoah.

1/ See Water-Supply Papers 777, 817, 840, 845, 886 and 908.

Figure 3 shows the average fluctuation of the water levels and the monthly and annual precipitation since August 1934. The precipitation at Shenandoah has been below normal in each year since measurement of water levels was begun in that area except in 1941. The lowest water level during

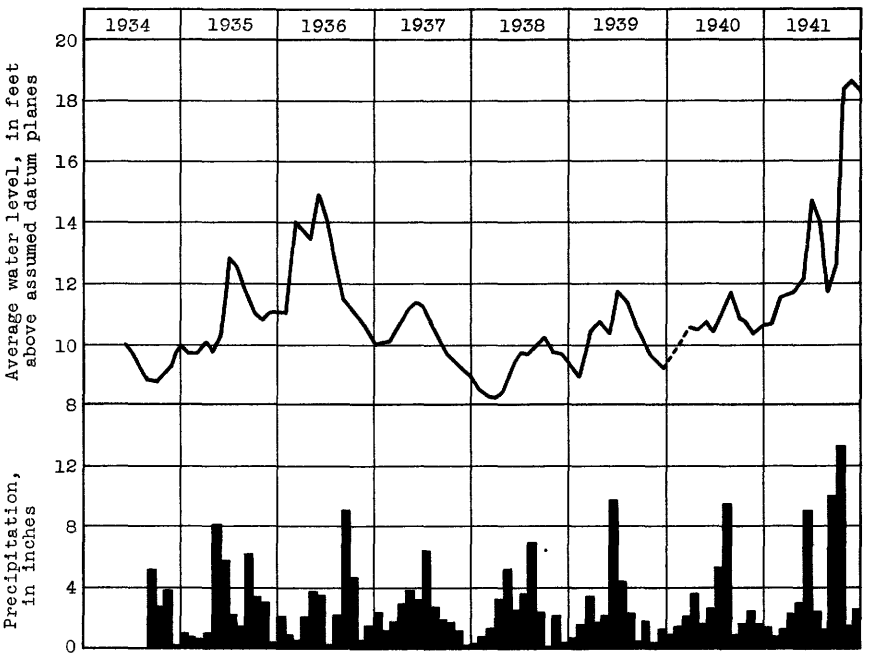

Figure 3.--Graph showing average water level in 9 to 12 wells and precipitation at Shenandoah in the Tarkio Creek area, Iowa-Missouri.

the period of record occurred in March 1938. Beginning in April 1938 there has been a persistent upward trend, which reached a climax with the high water level of November 1941. The average net rise from the low level of March 1938 to the high level of November 1941 amounted to 10.36 feet.

The following table gives the average stage of water levels in the observation wells in the Tarkio Creek area for each month since May 1934.

Average monthly water levels in 9 to 12 observation wells in the Tarkio Creek area, Iowa - Missouri, 1934-1941.

(Elevations are given in feet above assumed datum plane)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1934	.....	.....	.....	.....	10.04	9.72	9.16	8.79	8.76	9.02	9.28	10.02
1935	9.71	9.72	10.12	9.79	10.45	12.89	12.52	11.63	11.02	10.82	11.07	11.14
1936	11.06	14.09	13.74	13.43	15.01	14.16	12.69	11.56	11.09	10.90	10.61	10.05
1937	10.10	10.14	10.61	11.19	11.41	11.24	10.82	10.18	9.70	9.51	9.17	8.93
1938	8.52	8.29	8.24	8.48	9.31	9.75	9.68	10.02	10.28	9.75	9.69	9.35
1939	9.03	8.95	10.47	10.79	10.33	11.77	11.40	10.66	10.16	9.60	9.34	9.18
1940	.....	.....	10.53	10.43	10.71	10.37	.....	11.71	10.82	10.69	10.34	10.59
1941	10.65	11.47	11.55	11.72	12.17	14.79	13.90	11.64	12.51	18.26	18.60	18.30

1. W. R. Marshall.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	9.95	Apr. 24	11.31	July 24	.....	Oct. 27	16.33
Feb. 24	10.87	May 26	10.93	Aug. 26	13.84	Nov. 25	20.41
Mar. 27	10.71	June 27	15.83	Sept.24	14.03	Dec. 26	19.42

2. H. W. Klutas.

Water level, in feet above assumed datum, 1941

Jan. 30	10.89	Apr. 24	11.33	July 24	11.57	Oct. 27	16.13
Feb. 24	11.23	May 26	11.10	Aug. 26	10.33	Nov. 25	12.51
Mar. 27	10.98	June 27	12.22	Sept.24	10.97	Dec. 26	11.06

5. John Toft.

Water level, in feet above assumed datum, 1941

Jan. 30	10.53	Apr. 24	15.81	July 24	13.75	Oct. 27	18.40
Feb. 24	12.90	May 26	14.09	Aug. 26	10.06	Nov. 25	18.16
Mar. 27	13.10	June 27	17.56	Sept.24	11.46	Dec. 26	20.04

6. T. Slickerveer.

Water level, in feet above assumed datum, 1941

Jan. 2	8.91	Apr. 25	10.23	July 25	10.68	Oct. 28	13.64
31	8.67	May 27	10.93	Aug. 27	9.64	Nov. 26	15.53
Feb. 25	9.70	June 28	11.26	Sept.24	10.27	Dec. 29	17.30
Mar. 28	9.22						

7. E. F. Holquist.

Water level, in feet above assumed datum, 1941

Jan. 2	9.69	Apr. 25	9.20	July 25	15.48	Oct. 28	19.22
31	9.94	May 27	14.44	Aug. 27	11.55	Nov. 26	22.23
Feb. 25	10.38	June 28	18.95	Sept.25	14.17	Dec. 29	23.83
Mar. 28	12.37						

10. R. Palmquist.

Water level, in feet above assumed datum, 1941

Jan. 2	10.67	Apr. 25	12.17	July 25	15.11	Oct. 28	19.47
31	10.99	May 27	12.17	Aug. 27	12.42	Nov. 26	20.70
Feb. 25	11.42	June 28	18.31	Sept.25	12.89	Dec. 29	21.92
Mar. 28	11.93						

11. R. Palmquist.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	(a)	Apr. 25	(a)	July 25	10.45	Oct. 28	13.72
31	(a)	May 11	(a)	Aug. 27	9.58	Nov. 26	13.39
Feb. 25	(a)	June 28	12.16	Sept.25	10.26	Dec. 29	13.64
Mar. 28	(a)						

12. Amil Windhorst.

Water level, in feet above assumed datum, 1941

Jan. 2	13.47	Apr. 24	14.38	July 25	b 22.20	Oct. 28	b 32.13
31	13.57	May 27	14.38	Aug. 27	b 18.61	Nov. 26	b 27.96
Feb. 25	13.82	June 28	b 22.47	Sept.25	b 23.68	Dec. 29	b 27.59
Mar. 28	13.67						

13. Amil Windhorst.

Water level, in feet above assumed datum, 1941

Jan. 2	11.30	Apr. 24	11.11	July 25	c -5.82	Oct. 28	c 8.57
31	11.40	May 27	11.11	Aug. 27	c .35	Nov. 26	c 9.54
Feb. 25	12.01	June 28	c 11.75	Sept.25	c -5.93	Dec. 29	c 5.56
Mar. 28	11.82						

14. Floyd Hoskins.

Water level, in feet above assumed datum, 1941

Jan. 2	12.93	Apr. 24	13.96	July 24	17.46	Oct. 27	20.00
30	13.21	May 26	15.10	Aug. 26	14.28	Nov. 25	25.52
Feb. 24	15.00	June 27	17.31	Sept.24	14.35	Dec. 24	20.52
Mar. 27	15.04						

15. Metropolitan Life Insurance Co.

Water level, in feet above assumed datum, 1941

Jan. 30	10.61	Apr. 24	11.42	July 24	12.74	Oct. 27	16.58
Feb. 24	11.14	May 26	11.15	Aug. 26	9.70	Nov. 25	16.78
Mar. 27	10.22	June 27	13.28	Sept.24	6.76	Dec. 26	13.09

16. Metropolitan Life Insurance Co.

Water level, in feet above assumed datum, 1941

Jan. 30	(d)	Apr. 24	(d)	July 24	(d)	Oct. 27	(d)
Feb. 24	(d)	May 26	(d)	Aug. 26	(d)	Nov. 25	(d)
Mar. 27	(d)	June 27	8.21	Sept.24	(d)	Dec. 26	(d)

17. Albert Nordholm.

Water level, in feet above assumed datum, 1941

Jan. 30	8.11	Apr. 24	7.40	July 24	9.57	Oct. 27	15.27
Feb. 24	8.21	May 26	7.45	Aug. 26	7.98	Nov. 25	11.40
Mar. 27	8.25	June 27	9.90	Sept.24	8.81	Dec. 26	12.92

20.

Water level, in feet above assumed datum, 1941

Jan. 30	11.44	Apr. 24	10.23	July 24	13.14	Oct. 27	15.63
Feb. 24	12.98	May 26	11.67	Aug. 26	11.03	Nov. 25	13.87
Mar. 27	10.85	June 27	16.04	Sept.24	11.93	Dec. 26	12.44

a Dry.
b Well No. 13, 65 feet distant pumping.
c Pumping.
d Well bridged above water level.

21.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	7.92	Apr. 24	(a)	July 24	10.03	Oct. 27	15.07
Feb. 24	7.58	May 26	7.16	Aug. 26	8.77	Nov. 25	18.17
Mar. 27	6.67	June 27	9.77	Sept.24	10.11	Dec. 26	17.15

22. J. A. McAllister.

Water level, in feet above assumed datum, 1941

Jan. 30	10.90	Apr. 24	10.26	July 24	12.46	Oct. 27	15.61
Feb. 24	10.86	May 26	10.93	Aug. 26	10.04	Nov. 25	17.51
Mar. 27	10.20	June 27	12.18	Sept.24	11.51	Dec. 26	13.45

23. No measurements made in 1941.

24.

Water level, in feet above assumed datum, 1941

Jan. 30	9.77	Apr. 24	9.68	July 24	10.28	Oct. 27	11.72
Feb. 24	9.54	May ..	....	Aug. 26	9.64	Nov. 25	12.06
Mar. 27	9.67	June 27	10.18	Sept.24	10.86	Dec. 26	10.65

25. Edwin Rolf.

Water level, in feet above datum of well 1, 1941

Jan. 30	30.10	Apr. 24	30.84	July 24	36.72	Oct. 27	52.31
Feb. 24	30.92	May 26	30.65	Aug. 26	32.60	Nov. 25	42.33
Mar. 27	30.34	June 27	36.17	Sept.24	36.29	Dec. 26	38.25

26. No measurements made in 1941.

27. Edwin Rolf.

Water level, in feet above datum of well 1, 1941

Jan. 30	29.00	Apr. 24	28.78	July 24	31.97	Oct. 27	33.85
Feb. 24	28.74	May 26	28.69	Aug. 26	30.61	Nov. 25	34.82
Mar. 27	28.62	June 27	31.13	Sept.24	31.36	Dec. 26	40.35

28. Edwin Rolf.

Water level, in feet above datum of well 1, 1941

Jan. 30	48.19	Apr. 24	49.58	July 24	57.07	Oct. 27	60.54
Feb. 24	48.87	May 26	49.74	Aug. 26	49.42	Nov. 25	60.95
Mar. 27	49.42	June 27	57.68	Sept.24	52.79	Dec. 26	54.68

29. Edwin Rolf.

Water level, in feet above datum of well 1, 1941

Jan. 30	31.89	Apr. 24	32.56	July 24	36.26	Oct. 27	39.54
Feb. 24	32.81	May 26	32.46	Aug. 26	32.14	Nov. 25	38.08
Mar. 27	32.62	June 27	36.69	Sept.24	32.16	Dec. 26	35.72

30. W. F. Marshall.

Water level, in feet above datum of well 1, 1941

Jan. 30	15.21	Apr. 24	16.32	July 24	21.75	Oct. 27	25.15
Feb. 24	16.62	May 26	15.86	Aug. 26	20.04	Nov. 25	23.84
Mar. 27	15.88	June 27	24.07	Sept.24	21.87	Dec. 26	24.44

a Dry.

31. W. F. Marshall.

Water level, in feet above datum of well 1, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.97	Apr. 24	9.61	July 24	14.35	Oct. 27	18.56
Feb. 24	10.10	May 26	9.55	Aug. 26	13.51	Nov. 25	17.81
Mar. 27	9.66	June 27	12.45	Sept.24	13.83	Dec. 26	19.07

32. W. F. Marshall.

Water level, in feet above datum of well 1, 1941

Jan. 30	1.79	Apr. 24	5.57	July 24	7.68	Oct. 27	9.44
Feb. 24	4.85	May 26	2.56	Aug. 26	4.65	Nov. 25	11.44
Mar. 27	3.94	June 27	10.61	Sept.24	7.74	Dec. 26	11.62

33. W. F. Marshall.

Water level, in feet, with reference to datum of well 1, 1941

Jan. 30	-1.53	Apr. 24	-1.17	July 24	1.93	Oct. 27	6.31
Feb. 24	-.45	May 26	-1.70	Aug. 26	-2.14	Nov. 25	3.99
Mar. 27	-2.55	June 27	4.16	Sept.24	4.04	Dec. 26	4.33

34. W. F. Marshall.

Water level, in feet above datum of well 1, 1941

Jan. 30	6.90	Apr. 24	10.12	July 24	11.39	Oct. 27	11.87
Feb. 24	7.83	May 26	7.54	Aug. 26	8.23	Nov. 25	14.97
Mar. 27	7.64	June 27	15.08	Sept.24	12.99	Dec. 26	15.19

35. W. F. Marshall.

Water level, in feet above datum of well 1, 1941

Jan. 30	50.16	Apr. 24	51.56	July 24	52.92	Oct. 27	52.72
Feb. 24	51.35	May 26	51.18	Aug. 26	50.60	Nov. 25	56.10
Mar. 27	50.52	June 27	54.94	Sept.24	51.11	Dec. 26	56.90

36. George Rolf.

Water level, in feet above datum of well 1, 1941

Jan. 30	86.92	Apr. 24	86.76	July 24	88.15	Oct. 27	92.26
Feb. 24	86.97	May 26	86.81	Aug. 26	86.90	Nov. 25	92.26
Mar. 27	86.70	June 27	86.96	Sept.24	90.89	Dec. 26	97.68

37. Well destroyed, measurements discontinued.

38. Elsie Nordstrom.

Water level, in feet above assumed datum, 1941

Jan. 2	72.04	Apr. 25	71.14	July 24	74.02	Oct. 27	79.58
30	72.32	May 27	71.20	Aug. 26	73.86	Nov. 25	78.25
Feb. 24	70.70	June 27	73.30	Sept.24	73.67	Dec. 26	81.99
Mar. 27	70.76						

39. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	70.08	Apr. 25	69.42	July 24	71.58	Oct. 27	73.48
30	70.17	May 27	69.16	Aug. 26	71.14	Nov. 25	78.74
Feb. 24	68.57	June 27	70.66	Sept.24	71.19	Dec. 26	77.71
Mar. 27	68.71						

40. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	(a)	Apr. 25	(a)	July 24	68.94	Oct. 27	72.15
30	(a)	May 27	(a)	Aug. 26	68.27	Nov. 25	80.99
Feb. 24	(a)	June 27	69.32	Sept.24	(a)	Dec. 26	77.71
Mar. 27	(a)						

41. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	67.77	Apr. 25	67.42	July 24	70.07	Oct. 27	71.07
30	67.85	May 27	67.06	Aug. 26	67.70	Nov. 25	78.67
Feb. 24	70.21	June 27	71.11	Sept.24	.....	Dec. 26	76.41
Mar. 27	69.92						

42. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	66.34	Apr. 25	66.34	July 24	68.58	Oct. 27	73.19
30	66.46	May 27	65.95	Aug. 26	66.81	Nov. 25	80.31
Feb. 24	68.38	June 27	68.89	Sept.24	68.07	Dec. 26	77.45
Mar. 27	68.71						

43. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	67.35	Apr. 25	66.63	July 24	67.85	Oct. 27	70.73
30	67.30	May 27	66.50	Aug. 26	67.52	Nov. 25	79.93
Feb. 24	66.19	June 27	66.96	Sept.24	67.63	Dec. 26	75.66
Mar. 27	66.34						

43A. Well destroyed, measurements discontinued.

44. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	65.43	Apr. 25	65.58	July 24	67.47	Oct. 27	70.11
30	65.62	May 27	65.11	Aug. 26	65.61	Nov. 25	78.75
Feb. 24	68.38	June 27	69.60	Sept.24	66.11	Dec. 26	75.41
Mar. 27	70.83						

44A. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	63.89	Apr. 25	64.68	July 24	66.14	Oct. 27	69.36
30	64.05	May 27	64.32	Aug. 26	64.13	Nov. 25	76.60
Feb. 24	69.16	June 27	69.29	Sept.24	64.57	Dec. 26	74.62
Mar. 27	70.42						

45. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	63.26	Apr. 25	67.56	July 24	65.85	Oct. 27	70.20
30	63.39	May 27	66.85	Aug. 26	63.63	Nov. 25	75.98
Feb. 24	69.50	June 27	68.97	Sept.24	64.18	Dec. 26	75.31
Mar. 27	70.10						

a Dry.

46. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	58.51	Apr. 25	61.54	July 24	62.52	Oct. 27	66.19
30	58.43	May 27	60.31	Aug. 26	59.25	Nov. 25	71.99
Feb. 24	64.48	June 27	62.76	Sept.24	59.80	Dec. 26	71.62
Mar. 27	65.90						

47. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	56.23	Apr. 25	56.68	July 24	58.35	Oct. 27	61.21
30	56.30	May 27	56.43	Aug. 26	56.65	Nov. 25	65.04
Feb. 24	58.08	June 27	58.61	Sept.24	57.11	Dec. 26	66.73
Mar. 27	58.35						

48. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	(a)	Apr. 25	(a)	July 24	(a)	Oct. 27	(a)
30	(a)	May 27	(a)	Aug. 26	(a)	Nov. 25	50.83
Feb. 24	(a)	June 27	(a)	Sept.24	(a)	Dec. 26	(a)
Mar. 27	(a)						

49. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	71.71	Apr. 25	71.88	July 24	77.09	Oct. 27	79.07
30	71.84	May 27	71.48	Aug. 26	76.77	Nov. 25	80.14
Feb. 24	72.08	June 27	77.03	Sept.24	70.23	Dec. 26	82.04
Mar. 27	72.23						

50. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	61.29	Apr. 25	61.53	July 24	67.65	Oct. 27	71.99
30	61.35	May 27	61.33	Aug. 26	64.09	Nov. 25	75.28
Feb. 24	63.11	June 27	68.61	Sept.24	77.38	Dec. 26	77.74
Mar. 27	63.45						

51. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	(b)	Apr. 25	(b)	July 24	(b)	Oct. 27	(b)
30	(b)	May 27	(b)	Aug. 26	(b)	Nov. 25	69.67
Feb. 24	(b)	June 27	(b)	Sept.24	(b)	Dec. 26	72.78
Mar. 27	(b)						

52. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	(b)	Apr. 25	(b)	July 24	(b)	Oct. 27	(b)
30	(b)	May 27	(b)	Aug. 26	(b)	Nov. 25	69.79
Feb. 24	(b)	June 27	(b)	Sept.24	(b)	Dec. 26	73.57
Mar. 27	(b)						

54. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	(b)	Apr. 25	(b)	July 24	(b)	Oct. 27	(b)
30	(b)	May 27	(b)	Aug. 26	(b)	Nov. 25	74.29
Feb. 24	(b)	June 27	(b)	Sept.24	(b)	Dec. 26	75.84
Mar. 27	(b)						

a Well bridged above water level.
b Dry.

55. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	(a)	Apr. 25	(a)	July 24	(a)	Oct. 27	(a)
30	(a)	May 27	(a)	Aug. 26	(a)	Nov. 25	72.93
Feb. 24	(a)	June 27	(a)	Sept.24	(a)	Dec. 25	74.43
Mar. 27	(a)						

56. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	(a)	Apr. 25	(a)	July 24	(a)	Oct. 27	(a)
30	(a)	May 27	(a)	Aug. 26	(a)	Nov. 25	72.62
Feb. 24	(a)	June 27	(a)	Sept.24	(a)	Dec. 26	77.54
Mar. 27	(a)						

57. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	45.01	Mar. 27	46.36	June 27	47.26	Sept.24	47.33
30	44.97	Apr. 25	45.29	July 24	47.26	Nov. 25	56.69
Feb. 24	46.25	May 27	44.73	Aug. 26	46.55	Dec. 26	59.72

58. Elsie Nordstrom.

Water level, in feet above datum of well 38, 1941

Jan. 2	38.74	Mar. 27	40.01	June 27	44.98	Sept.24	39.99
30	39.11	Apr. 25	43.52	July 24	42.70	Nov. 25	44.26
Feb. 24	39.87	May 27	42.90	Aug. 26	39.36	Dec. 26	47.28

59. Frank Goodner.

Water level, in feet above datum of well 38, 1941

Jan. 2	(a)	Apr. 25	(a)	July 24	(a)	Oct. 27	56.07
30	(a)	May 27	(a)	Aug. 26	39.57	Nov. 25	51.31
Feb. 24	(a)	June 27	(a)	Sept.24	(a)	Dec. 26	42.29
Mar. 27	(a)						

69. Well destroyed, measurements discontinued.

70. John Snyder.

Water level, in feet above assumed datum, 1941

Jan. 2	8.50	Apr. 24	13.65	July 25	11.16	Oct. 28	15.56
30	8.24	May 27	11.63	Aug. 26	8.96	Nov. 25	15.86
Feb. 24	10.81	June 27	13.60	Sept.24	9.59	Dec. 29	12.77
Mar. 27	10.50						

71. John Snyder.

Water level, in feet above assumed datum, 1941

Jan. 2	10.19	Mar. 27	12.72	June 27	13.30	Sept.24	10.69
30	10.59	Apr. 24	13.00	July 24	10.72	Nov. 25	14.14
Feb. 24	9.96	May 27	11.17	Aug. 27	10.14		

72. O. A. Milner.

Water level, in feet above assumed datum, 1941

Jan. 2	12.38	Apr. 25	15.80	July 25	19.05	Oct. 28	20.37
31	12.42	May 27	14.91	Aug. 27	13.39	Nov. 26	20.59
Feb. 25	14.08	June 28	20.29	Sept.25	18.00	Dec. 29	20.37
Mar. 28	14.32						

a Dry.

73.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	10.11	Apr. 25	13.56	July 25	13.16	Oct. 28	18.03
31	10.21	May 27	13.16	Aug. 27	11.22	Nov. 26	17.51
Feb. 25	12.12	June 28	14.48	Sept.25	13.91	Dec. 29	18.66
Mar. 28	12.32						

74. Fred Miller.

Water level, in feet above assumed datum, 1941

Jan. 30	10.08	Apr. 24	13.75	July 24	19.22	Oct. 27	23.71
Feb. 24	10.57	May 26	15.68	Aug. 26	18.89	Nov. 25	24.68
Mar. 27	11.63	June 27	19.30	Sept.24	19.31	Dec. 26	14.28

75. I. W. Runyon.

Water level, in feet above assumed datum, 1941

Jan. 30	11.97	Apr. 24	21.33	July 24	19.86	Oct. 27	31.84
Feb. 24	13.38	May 26	17.44	Aug. 26	10.95	Nov. 25	29.43
Mar. 27	13.08	June 27	25.64	Sept.24	13.33	Dec. 26	17.11

76. Metropolitan Life Insurance Co.

Water level, in feet above assumed datum, 1941

Jan. 30	10.44	Apr. 24	12.41	July 24	11.74	Oct. 27	13.18
Feb. 24	11.11	May 26	12.18	Aug. 26	10.58	Nov. 25	15.61
Mar. 27	11.25	June 27	12.70	Sept.24	12.23	Dec. 26	16.18

77. Well destroyed, measurements discontinued.

78. Mainquist.

Water level, in feet above assumed datum, 1941

Jan. 2	10.08	Apr. 25	11.77	July 25	12.00	Oct. 28	14.15
31	10.13	May 27	10.73	Aug. 27	10.26	Nov. 26	14.26
Feb. 25	10.48	June 28	12.72	Sept.25	11.29	Dec. 29	14.34
Mar. 28	10.17						

79.

Water level, in feet above assumed datum, 1941

Jan. 2	10.51	Apr. 25	17.53	July 25	14.71	Oct. 28	23.85
31	10.76	May 27	14.21	Aug. 27	11.57	Nov. 26	24.17
Feb. 25	11.87	June 28	19.70	Sept.25	23.03	Dec. 29	25.11
Mar. 28	13.75						

80. Burton.

Water level, in feet above assumed datum, 1941

Jan. 2	11.53	Apr. 24	15.95	July 24	16.24	Oct. 28	16.64
31	11.93	May 27	16.53	Aug. 27	15.22	Nov. 26	15.42
Feb. 24	14.59	June 28	17.83	Sept.25	18.39	Dec. 29	15.09
Mar. 28	14.87						

81. L. G. Bergen.

Water level, in feet above assumed datum, 1941

Jan. 2	10.56	Apr. 25	12.68	July 25	11.48	Oct. 28	15.45
31	10.68	May 27	11.18	Aug. 27	10.52	Nov. 26	15.62
Feb. 25	11.11	June 28	12.93	Sept.25	12.20	Dec. 29	15.90
Mar. 28	11.13						

82.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	13.51	Apr. 25	18.66	July 25	18.35	Oct. 28	23.99
31	13.77	May 27	17.87	Aug. 27	14.27	Nov. 26	21.43
Feb. 25	13.72	June 28	20.71	Sept.25	18.47	Dec. 29	24.13
Mar. 28	15.61						

83. Elsie Nordstrom.

Water level, in feet above assumed datum, 1941

Jan. 2	70.09	Apr. 25	70.21	July 24	71.81	Oct. 27	78.75
30	70.16	May 27	70.03	Aug. 26	71.81	Nov. 25	80.97
Feb. 24	70.14	June 27	71.97	Sept.24	72.24	Dec. 29	82.18
Mar. 27	70.55						

84. Elsie Nordstrom.

Water level, in feet above datum of well 83, 1941

Jan. 2	69.66	Apr. 25	70.06	July 24	71.68	Oct. 27	73.80
30	69.69	May 27	69.74	Aug. 26	70.67	Nov. 25	73.03
Feb. 24	70.25	June 27	72.16	Sept.24	72.30	Dec. 29	78.00
Mar. 27	70.55						

85. Elsie Nordstrom.

Water level, in feet above datum of well 83, 1941

Jan. 2	70.24	Apr. 25	69.93	July 24	71.47	Oct. 27	73.15
30	69.31	May 27	69.59	Aug. 26	70.67	Nov. 25	74.27
Feb. 24	70.19	June 27	72.37	Sept.24	72.07	Dec. 29	76.15
Mar. 27	70.35						

86. Elsie Nordstrom.

Water level, in feet above datum of well 83, 1941

Jan. 2	69.09	Apr. 25	69.85	July 24	71.41	Oct. 27	77.68
30	69.18	May 27	69.46	Aug. 26	70.86	Nov. 25	73.33
Feb. 24	70.57	June 27	72.59	Sept.24	72.21	Dec. 29	76.44
Mar. 27	70.71						

87. Elsie Nordstrom.

Water level, in feet above datum of well 83, 1941

Jan. 2	70.31	Apr. 25	71.37	July 24	73.00	Oct. 27	80.68
30	70.35	May 27	70.83	Aug. 26	72.43	Nov. 25	75.47
Feb. 24	71.85	June 27	74.72	Sept.24	73.40	Dec. 29	79.56
Mar. 27	72.05						

KANSAS

INTRODUCTION

By S. W. Lohman

The Kansas section of the 1940 water-level report (Water-Supply Paper 908) contained records for 21 counties. The present section contains records for 25 counties and includes for the first time records for Ellis, Grant, Haskell, and Russell Counties. Observation well programs in each of the 25 counties are being conducted by the State Geological Survey of Kansas and the Geological Survey, United States Department of the Interior, in cooperation with the Division of Water Resources of the Kansas State Board of Agriculture and the Division of Sanitation of the Kansas State Board of Health. The program in Jewell County is being carried on in cooperation also with the Soil Conservation Service, United States Department of Agriculture; and the programs in Harvey, McPherson, and Sedgwick Counties are being carried on in cooperation also with the city of Wichita.

At the beginning of 1941 periodic water-level measurements were being made in 437 observation wells. (Erroneously given as 486 wells at end of 1940 in Water-Supply Paper 908.) During the year 30 wells were discontinued and periodic water-level measurements were begun or resumed in 60 other wells. The descriptions of all wells in which measurements of water level were made for the first time during 1941 are given in this report under the county in which they are situated. The descriptions of the other wells were given in the reports for previous years (Water-Supply Papers 777, 817, 840, 845, 886, and 908). At the end of 1941 periodic water-level measurements were being made in 467 wells, including 7 wells observed quarterly, 339 wells observed monthly, 110 wells observed weekly, and 11 wells equipped with automatic water-stage recorders. A total of 7,246 wetted-tape water-level measurements was made during the year. These data are classified by counties in the following table.

Names of observers, changes in number of wells observed for all observation wells in Kansas, classified by counties, during 1941

County	Name of observer	Number of observation wells			
		Measured at beginning of 1941	Discontinued during 1941	Added during 1941	Measured at end of 1941
Barber	W. W. Wilson	12	0	2	14
Clark	W. W. Wilson	13	3	1	11
Comanche	W. W. Wilson	8	2	0	6
Ellis	G. E. Shaffer	0	0	6	6
Finney	W. W. Wilson	27	2	0	25
Ford	W. W. Wilson	15	0	0	15
Grant	W. W. Wilson	0	0	14	14
Gray	W. W. Wilson	24	2	0	22
Hamilton	W. W. Wilson	21	5	0	16
Harvey	G. H. von Hein	118	1	1	118
Haskell	W. W. Wilson	0	0	14	14
Hodgeman	W. W. Wilson	3	0	0	3
Jewell	J. H. Diamond	38	3	1	36
Kearny	W. W. Wilson	23	4	0	19
Kiowa	W. W. Wilson	7	2	1	6
McPherson	G. H. von Hein	10	1	0	9
Meade	W. W. Wilson	28	1	0	27
Morton	W. W. Wilson	6	0	0	6
Ness	W. W. Wilson	2	0	0	2
Pawnee	W. W. Wilson	3	0	0	3
Russell	G. E. Shaffer	0	0	19	19
Scott	W. W. Wilson	32	1	0	31
Sedgwick	G. H. von Hein	31	0	0	31
Seward	W. W. Wilson	11	3	0	8
Stanton	W. W. Wilson	5	0	1	6
Total		437	30	60	467

Frequency of measurement and number of wetted-tape measurements for all observation wells in Kansas, classified by counties, during 1941

County	Number of observation wells				
	Observed quarterly	Observed monthly	Observed weekly	Equipped with recorders	Number of measurements made in 1941
Barber	1	13	0	0	129
Clark	0	11	0	0	106
Comanche	0	6	0	0	63
Ellis	0	6	0	0	12
Finney	0	24	0	1	240
Ford	0	15	0	0	161
Grant	0	14	0	0	102
Gray	0	22	0	0	213
Hamilton	0	16	0	0	153
Harvey	0	13	102	3	3,498
Haskell	0	14	0	0	88
Hodgeman	0	3	0	0	33
Jewell	0	36	0	0	450
Kearny	0	19	0	0	173
Kiowa	0	6	0	0	53
McPherson	5	3	1	0	82
Meade	1	25	0	1	310
Morton	0	6	0	0	68
Ness	0	2	0	0	22

Frequency of measurement and number of wetted-tape measurements for all observation wells in Kansas, classified by counties, during 1941--Continued

County	Number of observation wells				
	Observed quarterly	Observed monthly	Observed weekly	Equipped with recorders	Number of measurements made in 1941
Pawnee	0	3	0	0	32
Russell	0	19	0	0	76
Scott	0	28	0	3	288
Sedgwick	0	21	7	3	741
Seward	0	8	0	0	88
Stanton	0	6	0	0	65
Total	7	339	110	11	7,246

During 1941 cooperative ground-water reports on the following areas of Kansas were published by the State Geological Survey of Kansas: Stanton County,[1] Atchison County,[2] Lawrence and vicinity,[3] and southeastern Kansas.[4] In addition an article explaining water-level trends in Scott County[5] was published. During 1941 ground-water investigations were made in the following areas of Kansas by the authors named: Grant and Haskell Counties by Thad G. McLaughlin; Kiowa County, by Bruce F. Latta; Barber County, by Frank Byrne; Jewell County, by V. C. Fishel and H. A. Waite; and Russell and Ellis Counties, by J. C. Frye and J. J. Brazil.

The following table summarizes the trends in ground-water levels and in precipitation during 1941 in the 21 counties of Kansas in which water-level records are available for a full year or longer. Detailed information on the highest and lowest water levels of record, the net changes in water level in 1941, and the net changes in water level during the entire period of record is given in tables that begin each of the 21 county chapters. No such information is included for wells in the 4 counties in which water-level measurements were begun in 1941.

1/ Latta, Bruce F., Geology and ground-water resources of Stanton County, Kansas: Kansas Geol. Survey Bull. 37, 119 pp., 9 pls., 6 figs., 1941.

2/ Frye, John C., Reconnaissance of ground-water resources in Atchison County, Kansas: Kansas Geol. Survey Bull. 38, pt. 9, pp. 237-260, pls. 1-3, figs. 1-6, 1941.

3/ Lohman, Stanley W., Ground-water conditions in the vicinity of Lawrence, Kansas: Kansas Geol. Survey Bull. 38, part 2, pp. 17-64, pls. 1, 2, figs., 1-6, 1941.

4/ Abernathy, G. E., Ground-water resources of Mississippian and older rocks in Bourbon, Crawford, Cherokee, and Labette Counties, southeastern Kansas: Kansas Geol. Survey Bull. 38, part 8, pp. 221-236, fig. 1, 1941.

5/ Waite, H. A., Factors producing a nine-year decline in ground-water levels in Scott County, Kansas: Am. Geophysical Union Trans. 1941, pp. 772-775, figs. 1, 2, 1941.

Relation between the percentage of wells in which highest water levels of record were recorded in 1941, the percentage of wells in which there was a net rise in water level during 1941, and the precipitation during 1941, classified by counties

County	Number of wells observed entire year	Percentage of wells in which highest water levels of record were reached	Percentage of wells having a net rise in water level	Precipitation at nearest Weather Bureau station: Percentage of normal	Precipitation at nearest Weather Bureau station: Station	Remarks
Barber	14	100	100	142	Medicine Lodge	
Clark	10	90	90	145	Ashland	
Comanche	6	67	67	125	Coldwater	
Ellis	..	...	...	119	Hays	Record begun in 1941.
Finney	25	56	76	132	Garden City	
Ford	15	87	93	147	Dodge City	Some wells pumped for irrigation.
Grant	..	...	...	162	Ulysses	Record begun in 1941.
Gray	22	68	64	127	Cimarron	
Hamilton	16	69	62	149	Syracuse	
Harvey	25	92	100	123	Newton	94 wells pumped or affected by pumping not included.
Haskell	..	...	...	129	Sublette	Record begun in 1941.
Hodgeman	3	100	100	119	Jetmore	All wells pumped for irrigation.
Jewell	34	59	97	143	Burr Oak (Near)	
Kearny	19	42	47	176	Lakin (near)	Some wells pumped or affected by pumping.
Kiowa	5	60	60	117	Greensburg	
McPherson	9	56	67	115	McPherson	
Meade	26	42	65	154	Plains	
Morton	6	83	100	173	Elkhart	
Ness	2	100	50	122	Ness City	All wells pumped for irrigation.
Pawnee	3	100	100	143	Larned	All wells pumped for irrigation.
Russell	..	...	...	140	Russell	Record begun in 1941.
Scott	31	16	29	124	Scott City	Half of wells pumped or affected by pumping.
Sedgwick	31	77	100	110	Wichita	
Seward	8	100	38	143	Liberal	Most wells were pumped.
Stanton	6	67	67	165	Johnson	One well pumped.

As indicated in the above table, the precipitation during 1941 was substantially above normal in each of the 25 counties, and ranged from 110 percent of normal in Sedgwick County to 176 percent of normal in Kearny County. In response to the unusually abundant precipitation the water levels in most of the wells reached in 1941 the highest stages during their periods of record, and in most of the wells there was an appreciable net rise in water level during the year. In 18 of the 21 counties for which records of a year or more are available, there was a net rise in water level during the year in 60 to 100 percent of the wells. In the three counties in which the percentage of wells showing net rises was only 50 percent or less, most of the observation wells were pumped or were affected noticeably by nearby pumping during the year. Water-level trends in these wells, therefore, reflect the extent of nearby pumping rather than the amount of recharge.

BARBER COUNTY

By C. C. Williams

Highest and lowest water levels, in feet below measuring point, in 14 wells in Barber County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	77.64	Dec. 22, 1941	83.99	Oct. 17, 1940
2	13.00	May 8, 1941	14.22	Sept.24, 1941
3	12.34	Dec. 22, 1941	18.42	Oct. 21, 1940
4	16.45	Nov. 20, 1941	18.19	Nov. 26, 1940
5	25.29	Nov. 20, 1941	31.65	Sept.24, 1941
6	38.05	Nov. 20, 1941	40.06	Mar. 22, 1941
7	19.43	July 14, 1941	20.32	Oct. 21, 1940
8	9.37	Nov. 21, 1941	17.98	Mar. 21, 1941
9	5.47	May 8, 1941	7.26	Oct. 22, 1940
10	103.90	Nov. 21, 1941	104.35	Oct. 22, 1940
11	46.62	Nov. 21, 1941	48.72	Oct. 22, 1940
12	5.95	Nov. 20, 1941	13.18	Oct. 22, 1940
13	11.33	Nov. 20, 1941	18.49	Oct. 22, 1940
15	39.85	Aug. 14, 1941	40.88	Aug. 9, 1941

Barber County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 14 wells in Barber County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	1	6.35	+0.99	+6.35
2	1	1.22	+.05	+.65
3	1	6.08	+2.73	+6.08
4	1	2.54	+1.05	+1.33
5	1	6.06	+4.86	+4.38
6	1	2.01	+2.01	+1.67
7	1	.89	+.73	+.73
8	1	8.61	+8.06	+7.93
9	1	1.79	+.09	+1.37
10	1	.45	+.19	+.43
11	1	2.10	+1.38	+1.94
12	1	7.23	+7.03	+7.04
13	1	7.16	+6.05	+6.78
15	1	1.03	+.02	(a)

Well descriptions and water-level measurements

1. D. S. Shaw. SE¼NW¼ sec. 19, T. 31 S., R. 15 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	78.63	June 21	78.80	Aug. 9	78.76	Nov. 20	78.96
Mar. 22	78.63	July 14	78.88	Sept.24	78.55	Dec. 22	77.64
May 8	78.71						

2. Russell Lake. SW¼SW¼ sec. 14, T. 31 S., R. 14 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	13.30	June 21	13.02	Aug. 9	13.61	Nov. 20	13.10
Mar. 22	13.32	July 14	13.35	Sept.24	14.22	Dec. 22	13.25
May 8	13.00						

3. Mr. Griever. SW¼NE¼ sec. 12, T. 32 S., R. 12 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	15.07	June 21	14.44	Sept.24	16.48	Nov. 20	12.50
Mar. 22	13.90	July 14	15.18	Oct. 22	15.21	Dec. 22	12.34
May 8	13.65	Aug. 9	16.11				

4. Madge Evans. SW¼SE¼ sec. 4, T. 32 S., R. 12 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	17.82	June 21	17.17	Aug. 9	17.68	Nov. 20	16.45
Mar. 22	17.60	July 14	17.45	Sept.24	17.59	Dec. 22	16.77
May 8	17.35						

5. R. Kenney. NE¼NW¼ sec. 1, T. 33 S., R. 12 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	30.83	June 21	30.85	Aug. 9	31.28	Nov. 20	25.29
Mar. 22	31.00	July 14	30.83	Sept.24	31.65	Dec. 22	25.97
May 8	30.83						

a Record begun in 1941.

Barber County--Continued

6. F. H. Boggs and Ben Barthlow. NW¼NW¼ sec. 4, T. 33 S., R. 12 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Mar. 22	40.06	June 21	39.96	Aug. 9	39.60
May 8	40.00	July 14	39.45	Nov. 20	38.05

7. E. B. Moots. SE¼SE¼ sec. 33, T. 32 S., R. 12 W. Unused dug stock well, depth 32.5 feet. Measuring point, top of brick and concrete curb, west side, 2.5 feet above land surface. No pump in well.

Water level, in feet below measuring point, 1940-41

Oct. 21, 1940	20.32	June 21, 1941	19.61	Sept.24, 1941	20.29
Jan. 23, 1941	20.08	July 14	19.43	Nov. 20	19.87
Mar. 22	19.73	Aug. 9	19.76	Dec. 22	19.59
May 8	19.54				

8. P. Brock. SE¼NE¼ sec. 17, T. 34 S., R. 15 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	17.74	June 21	13.95	Sept.24	14.72	Nov. 21	9.37
Mar. 21	17.98	July 14	14.34	Oct. 21	14.12	Dec. 23	9.68
May 8	16.08	Aug. 9	13.94				

9. V. D. Wells. SE¼SE¼ sec. 18, T. 34 S., R. 15 W.

Water level, in feet below measuring point, 1941

Jan. 22	5.98	June 21	6.37	Aug. 9	5.99	Nov. 21	5.71
Mar. 31	5.76	July 14	6.88	Sept.24	6.56	Dec. 23	5.89
May 8	5.47						

10. G. H. Davis. NW¼SW¼ sec. 11, T. 35 S., R. 15 W.

Water level, in feet below measuring point, 1941

Jan. 22	104.11	June 21	104.16	Sept.24	104.17	Nov. 21	103.90
Mar. 21	104.02	July 14	104.25	Oct. 21	103.99	Dec. 23	103.92
May 8	103.95	Aug. 9	104.17				

11. A. Achenbach. NE¼SE¼ sec. 9, T. 35 S., R. 12 W.

Water level, in feet below measuring point, 1941

Jan. 22	48.16	July 14	47.80	Sept.24	48.30	Nov. 21	46.62
Mar. 21	47.65	Aug. 9	48.09	Oct. 21	48.06	Dec. 23	46.78

12. B. Mills. SW¼SW¼ sec. 34, T. 33 S., R. 10 W.

Water level, in feet below measuring point, 1941

Jan. 22	13.17	June 21	7.84	Sept.24	10.96	Nov. 20	5.95
Mar. 22	12.78	July 14	8.58	Oct. 22	9.02	Dec. 22	6.14
May 8	11.82	Aug. 9	10.60				

13. J. A. Hrencher. SW¼SE¼ sec. 17, T. 32 S., R. 10 W.

Water level, in feet below measuring point, 1941

Jan. 22	17.76	June 21	15.99	Sept.24	17.07	Nov. 20	11.33
Mar. 22	16.94	July 14	17.24	Oct. 22	12.96	Dec. 22	11.71
May 8	16.80	Aug. 9	17.87				

15. Anna Ruggles. SE cor. NE¼SE¼ sec. 16, T. 31 S., R. 11 W. Unused drilled stock well, diameter 4 inches, depth 49.2 feet. Measuring point, top of casing, north side, 1.0 foot above land surface. No pump in well; windmill tower over well.

Water level, in feet below measuring point, 1941

Mar. 22	39.90	June 21	39.88	Aug. 9	40.88	Nov. 20	39.87
May 8	39.90	July 14	39.85	Sept.24	39.87	Dec. 22	39.88

CLARK COUNTY

By J. C. Frye

Highest and lowest water levels, in feet below measuring point, in 10 wells in Clark County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	23.95	Dec. 29, 1941	24.85	Mar. 21, 1941 May 7, 1941
2	134.52	Dec. 29, 1940	134.73	June 20, 1941 Aug. 26, 1941
3	62.91	Dec. 29, 1941	63.17	Oct. 12, 1940 Oct. 21, 1941
5	29.03	Aug. 26, 1941	29.60	May 7, 1941
6	26.73	June 20, 1941	27.58	Oct. 14, 1940
7	37.03	Dec. 30, 1941	37.48	Aug. 27, 1941
8	29.76	June 20, 1941	32.98	Mar. 21, 1941
10	16.52	Nov. 21, 1941	17.98	May 7, 1941 Aug. 26, 1941
11	29.12	Nov. 21, 1941	29.97	Sept.23, 1941
12	68.49	Dec. 29, 1941	69.09	Oct. 21, 1941

Net changes in water level in 1941, and net changes in water level for the period of record in 10 wells in Clark County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	1	0.90	+0.77	+0.64
2	1	.21	-.03	-.10
3	1	.26	+.13	+.26
5	1	.57	+.13	.0
6	1	.69	+.41	+.80
7	1	.45	+.18	+.22
8	1	3.22	+1.95	+1.57
10	1	1.46	+1.30	+1.23
11	1	.35	+.35	+.19
12	1	.60	+.21	+.21

Well descriptions and water-level measurements

1. Central Life Assurance Co. SE¼NW¼ sec. 17, T. 34 S., R. 25 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	24.72	June 20	24.66	Sept.23	24.30	Nov. 22	24.32
Mar. 21	24.85	July 22	24.71	Oct. 21	24.32	Dec. 29	23.95
May 7	24.85	Aug. 26	24.33				

2. George F. Batt. NW¼SW¼ sec. 5, T. 30 S., R. 23 W.

Water level, in feet below measuring point, 1941

Jan. 21	134.62	June 20	134.73	Aug. 26	134.73	Nov. 22	134.70
Mar. 21	134.64	July 22	134.71	Sept.23	134.67	Dec. 29	134.65
May 7	134.69						

Clark County--Continued

3. T. L. Blair. SW¼NW¼ sec. 17, T. 30 S., R. 24 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	63.04	June 20	63.08	Sept.23	63.14	Nov. 22	63.12
Mar. 21	63.05	July 22	63.13	Oct. 21	63.17	Dec. 29	62.91
May 7	63.07	Aug. 26	63.15				

4. N. B. Estes. NE¼NE¼ sec. 5, T. 31 S., R. 25 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 21	92.99	May 7	93.01	July 22	97.80
Mar. 21	92.97	June 20	92.95	Nov. 22	a 93.10

5. Winnie Floyd. NW¼NW¼ sec. 12, T. 33 S., R. 25 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	29.36	Aug. 26	29.03	Oct. 21	29.19	Dec. 29	29.23
May 7	29.60	Sept.23	29.27	Nov. 22	29.25		

6. District School. NE¼NE¼ sec. 7, T. 35 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 22	27.21	June 20	26.73	Sept.23	27.07	Nov. 21	26.97
Mar. 21	27.11	July 23	26.85	Oct. 21	27.04	Dec. 30	26.78
May 7	27.12	Aug. 27	26.94				

7. M. C. Harper. SW¼SE¼ sec. 32, T. 33 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 22	37.21	June 20	37.28	Sept.23	37.37	Nov. 21	37.42
Mar. 21	37.28	July 23	37.36	Oct. 21	37.39	Dec. 30	37.03
May 7	37.39	Aug. 27	37.48				

8. W. H. Rogers. NE¼NE¼ sec. 7, T. 32 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 22	32.53	June 20	29.76	Sept.23	30.61	Nov. 21	30.62
Mar. 21	32.83	July 23	30.60	Oct. 21	30.64	Dec. 30	30.58
May 7	32.98	Aug. 27	30.66				

9. F. Bailey. SW¼SW¼ sec. 34, T. 30 S., R. 21 W. Water levels, in feet below measuring point, 1941: Jan. 22, 13.56; Mar. 21, 13.48. Measurements discontinued after Mar. 21 owing to excessive pumping.

10. J. F. Folks estate. SE¼SE¼ sec. 24, T. 32 S., R. 23 W.

Water level, in feet below measuring point, 1941

Jan. 22	17.91	June 20	17.92	Sept.23	17.57	Nov. 21	16.52
Mar. 21	17.97	July 23	17.75	Oct. 21	17.73	Dec. 30	16.61
May 7	17.98	Aug. 26	17.98				

11. James O. Folks. NE¼SE¼ sec. 26, T. 33 S., R. 24 W.

Water level, in feet below measuring point, 1941

June 20	29.85	Aug. 26	29.68	Oct. 21	29.88	Dec. 29	29.26
July 22	29.86	Sept.23	29.97	Nov. 21	29.12		

a Measurements discontinued after Nov. 22.

Clark County--Continued

12. Ralph Gardner. SW¼SW¼ sec. 11, T. 33 S., R. 24 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	68.70	May 7	68.72	Oct. 21	69.09	Dec. 29	68.49
Mar. 21	68.81	June 20	68.75	Nov. 21	68.71		

13. W. H. Shattock. NE¼NE¼ sec. 16, T. 31 S., R. 21 W. Unused bored domestic and stock well, diameter 6 inches, depth not known. Measuring point, top of galvanized-iron casing, east side, 0.1 foot above land surface. No pump on well.

Water level, in feet below measuring point, 1941

May 7	33.39	July 23	33.15	Sept.23	33.19	Nov. 21	32.97
June 20	33.06	Aug. 27	33.16	Oct. 21	33.17	Dec. 30	32.94

441. W. O. Rogers. NE¼NW¼ sec. 4, T. 30 S., R. 24 W. Measurements discontinued in Jan. 1941.

COMANCHE COUNTY

By J. C. Frye

Highest and lowest water levels, in feet below measuring point, in 6 wells in Comanche County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	40.34	Dec. 30, 1941	41.52	June 20, 1941
2	17.54	June 21, 1941	17.92	Nov. 20, 1940
3	84.67	Dec. 27, 1940	86.70	June 21, 1941
6	79.67	Dec. 30, 1941	80.36	Nov. 27, 1940
7	40.32	May 7, 1941	59.53	Jan. 22, 1941
9	89.10	Dec. 28, 1940	90.59	Sept.23, 1941

Net changes in water level in 1941, and net changes in water level for the period of record in 6 wells in Comanche County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	1	1.18	+0.88	+0.83
2	1	.38	+.12	+.23
3	1	2.03	-1.75	-1.30
6	1	.69	+.57	+.50
7	1	19.21	+12.19	+4.05
9	1	1.49	-.65	-.74

Comanche County--Continued

Water-level measurements

1. A. A. Carpenter. NE¼NE¼ sec. 8, T. 33 S., R. 20 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	41.22	June 20	41.52	Sept.23	41.35	Nov. 21	40.45
Mar. 21	41.47	July 23	41.51	Oct. 21	41.14	Dec. 30	40.34
May 7	41.50	Aug. 27	41.48				

2. Nina Clark. SW¼SW¼ sec. 27, T. 31 S., R. 30 W.

Water level, in feet below measuring point, 1941

May 8	17.76	July 23	17.71	Sept.23	17.68	Nov. 21	17.64
June 21	17.54	Aug. 27	17.66	Oct. 21	17.67		

3. E. Deewall. SW¼NE¼ sec. 19, T. 31 S., R. 18 W.

Water level, in feet below measuring point, 1941

Jan. 22	84.89	June 21	86.70	Sept.23	86.62	Nov. 21	86.66
Mar. 21	86.02	July 23	86.44	Oct. 21	86.34	Dec. 30	86.64
May 8	85.81	Aug. 27	86.60				

4. E. G. Thorp. SW¼SW¼ sec. 35, T. 34 S., R. 20 W. Water levels, in feet below measuring point, 1941: Jan. 22, 10.24; Mar. 21, 9.96; May 7, 9.67; June 20, 9.83. Measurements discontinued after June 20.

6. Christopher Nickolson. NW¼NE¼ sec. 6, T. 35 S., R. 18 W.

Water level, in feet below measuring point, 1941

Jan. 22	80.24	June 20	80.05	Sept.23	80.18	Nov. 21	79.92
Mar. 21	80.22	July 23	80.16	Oct. 21	79.86	Dec. 30	79.67
May 7	80.18	Aug. 27	80.09				

7. W. D. Aitken. NW¼NE¼ sec. 35, T. 34 S., R. 17 W.

Water level, in feet below measuring point, 1941

Jan. 22	59.53	June 20	50.54	Sept.23	59.10	Nov. 21	55.33
Mar. 21	58.60	July 23	57.52	Oct. 21	51.23	Dec. 30	47.34
May 7	40.32	Aug. 27	56.28				

8. Christopher Beitler. NW¼NE¼ sec. 34, T. 33 S., R. 17 W. Water levels, in feet below measuring point, 1941: Jan. 22, 34.78; Dec. 30, 41.16. Observations discontinued.

9. H. R. Burnette. NW¼NE¼ sec. 13, T. 32 S., R. 17 W.

Water level, in feet below measuring point, 1941

Jan. 22	89.23	June 20	89.17	Sept.23	90.59	Nov. 21	89.77
Mar. 21	89.21	July 23	89.34	Oct. 21	89.48	Dec. 30	89.88
May 7	89.27	Aug. 27	89.28				

ELLIS COUNTY

By J. C. Frye

An investigation of the ground-water resources of northeastern Ellis County and western and southern Russell County, Kansas, was started in 1941 by the Federal Geological Survey and the Division of Sanitation of the Kansas State Board of Health, with the cooperation of the State Geological Survey of Kansas and the Division of Water Resources of the Kansas State Board of Agriculture. The work comprises a field and laboratory study of the Cretaceous sandstones that underlie oil fields in these counties, with reference to the quantity and quality of the ground water in the sandstones and the suitability of the sandstones as reservoirs for disposition of oil-field brines. The Tertiary and Quaternary deposits of the area were also studied. This work is being done by J. J. Brazil, of the State Board of Health, and the writer, under the supervision of S. W. Lohman, Federal geologist in charge of ground-water investigations in Kansas, and Ogden S. Jones, Geologist of the Oil-Field Waste Disposal Section of the Division of Sanitation of the Kansas State Board of Health. Assistance was rendered during the period August to December 1941 by Gordon Shaffer.

Ellis County is in the central part of the Plains Border section of the Great Plains province. It is drained by the Saline and Smoky Hill Rivers and by Big Creek, a tributary of the Smoky Hill. All of Ellis County is underlain by Cretaceous rocks, although in certain areas they are overlain by Tertiary deposits. Pleistocene terrace deposits occur along the major valleys. Most of the domestic, stock, and municipal supplies in the county are obtained from wells.

At the end of 1941 monthly water-level measurements were being made in six wells in Ellis County by the wetted-tape method. All measurements were made by Gordon Shaffer. A total of 12 individual water-level measurements was made from October to the end of the year.

Ellis County--Continued

Well descriptions and water-level measurements

182. Polcyn et al. NE¼NE¼ sec. 10, T. 14 S., R. 16 W. Unused drilled stock well, diameter 6 inches, depth 153.7 feet. Water is obtained from a Cretaceous sandstone. Measuring point, top of 6-inch galvanized-iron casing, north side, 0.3 foot below land surface. No pump on well. Water levels, in feet below measuring point, 1941: Oct. 16, 151.05; Dec. 2, 149.52.

190. Ben Schulte. NE¼NE¼ sec. 8, T. 14 S., R. 16 W. Unused dug domestic well, diameter 24 inches, depth 17.9 feet. Water is obtained from Tertiary deposits. Measuring point, top edge of casing, west side, 0.2 foot above land surface. Equipped with hand-operated lift pump. Water levels, in feet below measuring point, 1941: Oct. 16, 14.00; Dec. 2, 14.02.

197. A. P. Graff. NE¼NE¼ sec. 14, T. 13 S., R. 17 W. Unused drilled domestic and stock well, diameter 6 inches, depth 29.6 feet. Water is obtained from Codell sandstone. Measuring point, top of galvanized-iron casing, east side, 0.6 foot above land surface. No pump on well. Water levels, in feet below measuring point, 1941: Oct. 17, 26.30; Dec. 2, 26.42.

215. A. H. Romine. NE¼NW¼ sec. 7, T. 11 S., R. 16 W. Dug stock well, diameter 24 inches, depth 20 feet. Water is obtained from Pleistocene deposits. Measuring point, top of rock casing, south side, 2.1 feet above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Nov. 13, 16.42; Dec. 2, 16.14.

218. W. W. Bemis. NE¼NE¼ sec. 16, T. 12 S., R. 17 W. Unused dug stock well, diameter 24 inches, depth 82.6 feet. Water is obtained from Codell sandstone. Measuring point, top of rock curbing, south side, 0.3 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Nov. 14, 54.24; Dec. 2, 52.10.

225. Ray Smith. NW¼NW¼ sec. 30, T. 12 S., R. 17 W. Unused drilled domestic and stock well, diameter 6 inches, depth 61.0 feet. Water is obtained from Codell sandstone. Measuring point, top of 6-inch galvanized-iron casing, west side, 0.3 foot above land surface. No pump on well. Water levels, in feet below measuring point, 1941: Nov. 15, 54.22; Dec. 2, 54.10.

FINNEY COUNTY

By B. F. Latta

Highest and lowest water levels, in feet below measuring point, in 25 wells in Finney County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	a 11.12	Aug. 6, 1937	a 8.14	Mar. 8, 1941
2	109.31	Oct. 11, 1941	109.71	Oct. 26, 1939
3	44.64	Mar. 22, 1940	61.78	Aug. 21, 1940
4	34.36	Aug. 5, 1941	36.53	Sept.20, 1939
5	23.12	June 21, 1941 July 24, 1940 Dec. 11, 1941	23.54	Jan. 28, 1940
6	17.25	June 21, 1940	19.65	Apr. 24, 1941
7	77.59	Nov. 1, 1941	78.22	June 22, 1940
8	75.92	Sept.20, 1940	76.75	June 21, 1940
9	72.86	Oct. 28, 1940	73.74	Aug. 22, 1940
10	11.20	Nov. 2, 1941	14.73	Sept.20, 1940
12	107.49	Apr. 24, 1941	b 108.13	Nov. 3, 1941

a In feet above datum.
b Measurement on Oct 12, 1941, not included.

Finney County--Continued

Highest and lowest water levels, in feet below measuring point, in 25 wells in Finney County, 1941--Continued

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
13	3.11	Dec. 11, 1941	5.63	Sept.23, 1939
14	46.89	Dec. 11, 1941	47.65	May 23, 1940
15	13.62	Nov. 30, 1941	15.40	Sept.20, 1940
16	37.05	Dec. 7, 1941	43.42	May 19, 1941
17	5.48	Dec. 7, 1941	9.81	Oct. 26, 1939
18	10.32	Aug. 5, 1941	12.31	Feb. 17, 1940
19	30.62	Oct. 2, 1939	32.66	June 3, 1941
20	67.60	Jan. 30, 1941	68.99	Oct. 2, 1941
21	100.27	Jan. 30, 1941	100.82	Oct. 2, 1941
22	120.14	Sept.28, 1941 Oct. 2, 1939	120.96	Oct. 2, 1941
23	44.98	July 24, 1940	45.80	Feb. 17, 1940
26	69.95	June 21, 1940	71.60	Apr. 24, 1941
27	76.07	Mar. 22, 1940 Sept.20, 1940	77.19	Aug. 4, 1941
28	36.59	Oct. 28, 1940 Dec. 24, 1940	37.06	Apr. 24, 1940 May 23, 1940

Net changes in water level in 1941, and net changes in water level for the period of record in 25 wells in Finney County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	5.5	2.98	+2.12	-0.03
2	2	.4	+.27	+.34
3	2	17.14	+1.96	-1.14
4	2	2.17	+.5	+.2
5	2	.42	+.18	+.33
6	2	2.4	-.19	-.93
7	2	.63	+.05	+.47
8	2	.83	-.03	+.43
9	2	.88	+.19	+.32
10	2	3.53	a +1.69	a +1.42
12	2	.64	-.58	-.36
13	2	2.52	+1.26	+2.52
14	2	.76	+ .27	+.64
15	2	1.78	b +1.6	b +1.24
16	2	6.37	+5.24	+2
17	2	4.33	+2.73	+4.25
18	2	1.99	+1.79	+1.34
19	2	2.04	+.58	-.9
20	2	1.39	c -.06	c -.1
21	2	.55	+.06	-.03
22	2	.82	-.38	-.6
23	2	.82	+.28	+.24
26	2	1.65	+.04	+.77
27	2	1.12	+.09	+.01
28	2	.47	-.09	+.3

a To Nov. 2, 1941.
b To Nov. 30, 1941.
c To Nov. 13, 1941.

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Finney County--Continued

Water-level measurements

1. Mrs. A. M. Reid. NE¼NE¼ sec. 9, T. 24 S., R. 33 W. Measurements supplied through courtesy of the Division of Water Resources of the Kansas State Board of Agriculture.

Mean daily water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.20	8.17	8.14	8.19	8.33	8.67	10.09	10.12	10.23	10.11	10.06	10.20
2	8.20	8.17	8.14	8.19	8.34	8.69	10.07	10.12	10.23	10.10	10.07	10.20
3	8.20	8.17	8.14	8.19	8.34	8.71	10.07	10.12	10.22	10.09	10.07	10.21
4	8.20	8.17	8.14	8.19	8.37	8.74	10.06	10.12	10.20	10.10	10.08	10.22
5	8.19	8.17	8.14	8.20	8.38	8.76	10.06	10.12	10.20	10.08	10.08	10.19
6	8.19	8.17	9.14	8.21	8.39	8.78	10.05	10.12	10.21	10.07	10.09	10.20
7	8.19	8.17	8.14	8.22	8.39	8.81	10.05	10.13	10.23	10.05	10.09	10.21
8	8.19	8.16	8.14	8.22	8.40	8.83	10.05	10.17	10.24	10.05	10.10	10.22
9	8.18	8.16	8.14	8.22	8.40	8.86	10.05	10.23	10.26	10.04	10.11	10.23
10	8.18	8.16	8.14	8.24	8.41	8.88	10.05	10.27	10.26	10.03	10.11	10.23
11	8.18	8.16	8.14	8.23	8.41	8.92	10.05	10.28	10.26	10.03	10.11	10.24
12	8.18	8.16	8.14	8.24	8.42	8.97	10.05	10.27	10.28	10.03	10.13	10.24
13	8.18	8.16	8.14	8.24	8.42	9.00	10.05	10.27	10.35	10.02	10.14	10.24
14	8.18	8.16	8.14	8.24	8.43	9.03	10.05	10.27	10.39	10.02	10.14	10.25
15	8.17	8.16	8.14	8.24	8.45	9.06	10.06	10.27	10.35	10.01	10.15	10.26
16	8.18	8.16	8.14	8.25	8.46	9.09	10.06	10.27	10.29	10.01	10.16	10.27
17	8.17	8.16	8.15	8.25	8.48	9.11	10.08	10.31	10.25	10.03	10.17	10.27
18	8.17	8.16	8.15	8.25	8.50	9.12	10.08	10.44	10.23	10.02	10.18	10.27
19	8.16	8.16	8.15	8.25	8.51	9.14	10.09	10.48	10.21	10.03	10.16	10.27
20	8.17	8.16	8.15	8.26	8.53	9.14	10.10	10.44	10.19	10.03	10.15	10.28
21	8.17	8.16	8.15	8.26	8.54	9.16	10.10	10.39	10.16	10.02	10.16	10.29
22	8.17	8.16	8.15	8.26	8.56	9.44	10.10	10.36	10.14	10.03	10.17	10.29
23	8.17	8.16	8.15	8.27	8.57	9.78	10.10	10.34	10.13	10.02	10.16	10.29
24	8.17	8.16	8.16	8.28	8.59	9.89	10.11	10.32	10.11	10.02	10.16	10.30
25	8.17	8.16	8.16	8.28	8.60	9.91	10.11	10.30	10.10	10.05	10.17	10.30
26	8.17	8.16	8.16	8.29	8.61	9.95	10.11	10.27	10.12	10.06	10.17	10.28
27	8.17	8.15	8.16	8.29	8.62	10.04	10.11	10.25	10.12	10.03	10.18	10.28
28	8.16	8.14	8.17	8.29	8.63	10.09	10.11	10.24	10.10	10.04	10.19	10.30
29	8.16	....	8.18	8.30	8.64	10.10	10.12	10.24	10.12	10.05	10.19	10.32
30	8.16	....	8.18	8.31	8.65	10.10	10.12	10.24	10.11	10.04	10.19	10.32
31	8.16	....	8.18	....	8.66	.....	10.12	10.22	.....	10.06	.....	10.32

2. Maggie B. Smith. NE cor. NW¼NE¼ sec. 30, T. 26 S., R. 32 W. Measuring point, 2,913.3 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	109.53	May 15	109.45	Aug. 4	109.37	Nov. 1	109.33
Mar. 19	109.49	June 3	109.44	Sept. 2	109.37	Dec. 11	109.33
Apr. 24	109.50	July 2	109.44	Oct. 11	109.31		

3. Nora Will. SW¼SW¼ sec. 35, T. 23 S., R. 33 W. Measuring point, 2,893.9 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	47.77	Apr. 24	46.78	July 2	45.48	Oct. 1	a 55.19
Feb. 22	47.54	May 19	46.45	Aug. 5	45.17	Nov. 1	47.23
Mar. 19	47.19	June 3	46.09	Sept. 1	47.24	Nov. 30	46.73

4. Garden City Company. SW¼SW¼ sec. 18, T. 22 S., R. 33 W. Measuring point, 2,912.5 feet above sea level.

Water level, in feet below measuring point, 1941

Feb. 22	34.86	May 19	34.50	Aug. 5	34.36	Nov. 2	35.07
Mar. 19	34.72	June 3	34.46	Sept. 1	34.99	Dec. 11	34.70
Apr. 24	34.59	July 2	34.91	Oct. 1	35.41		

a Irrigation wells about 200 yards east pumping.

Finney County--Continued

5. E. Alberta Reeves. SE¼NW¼NW¼ sec. 19, T. 21 S., R. 32 W. Measuring point, 2,894.8 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	23.24	Apr. 24	23.40	July 1	23.34	Oct. 1	23.15
Feb. 22	23.38	May 15	23.35	Aug. 5	23.39	Nov. 14	23.14
Mar. 19	23.37	June 3	23.41	Sept. 5	23.18	Dec. 11	23.12

6. T. A. Meakel. NW¼SW¼SW¼ sec. 36, T. 21 S., R. 29 W. Measuring point, 2,613.1 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 30	18.06	May 15	19.56	Aug. 4	17.86	Nov. 13	18.96
Mar. 18	19.23	June 3	18.60	Sept. 4	18.30	Dec. 4	19.07
Apr. 24	19.65	July 1	17.62	Oct. 2	18.63		

7. Marion Russell. NE¼NW¼ sec. 2, T. 26 S., R. 33 W. Measuring point, 2,906.3 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	77.91	June 3	77.89	Sept. 2	77.70	Nov. 1	77.59
Apr. 24	77.83	July 2	77.80	Oct. 10	77.70	Dec. 11	77.62
May 19	77.84	Aug. 5	77.76				

8. O. G. Reeve. SW¼NE¼SE¼ sec. 13, T. 25 S., R. 33 W. Measuring point, 2,899.4 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 29	76.11	Apr. 24	76.23	Dec. 11	76.11
Mar. 19	76.19	Nov. 1	76.18		

9. L. L. Jones. NW¼NE¼NW¼ sec. 2, T. 26 S., R. 34 W. Measuring point, 2,945.5 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	72.87	June 3	72.99	Sept. 2	72.92	Nov. 1	72.97
Apr. 24	72.89	July 2	72.91	Oct. 10	72.95	Dec. 11	72.91
May 19	72.98	Aug. 5	72.96				

10. L. R. McBeth. NW¼NE¼ sec. 9, T. 24 S., R. 33 W.

Water level, in feet below measuring point, 1941

Jan. 29	12.88	May 19	12.22	Aug. 5	11.80	Oct. 1	12.29
Mar. 19	12.33	June 3	11.98	Sept. 1	11.64	Nov. 2	11.20
Apr. 24	12.37	July 2	11.42				

12. Nellie Handy. NW¼SE¼NE¼ sec. 3, T. 25 S., R. 31 W. New measuring point beginning Mar. 19, 1941, top of casing, level with land surface, 0.17 foot below old measuring point, 2,866.9 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	a 107.51	June 3	107.58	Sept. 2	107.81	Nov. 3	108.13
Apr. 24	107.49	Aug. 4	107.55	Oct. 12	b 109.89	Dec. 11	108.08
May 15	107.55						

a Below new measuring point.
b Well pumped prior to measurement.

Finney County--Continued

13. Edwin Wehrley. NE¼SE¼SW¼ sec. 13, T. 25 S., R. 31 W. Measuring point, 2,743.2 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	4.22	May 15	3.90	Aug. 4	4.05	Nov. 3	4.34
Mar. 19	4.12	June 3	3.39	Sept. 2	4.48	Dec. 11	3.11
Apr. 24	4.08	July 1	3.20	Oct. 12	4.27		

14. John A. Hunter. NE¼SE¼NE¼ sec. 4, T. 26 S., R. 32 W. Measuring point, 2,845.9 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	47.24	June 3	47.30	Sept. 2	46.99	Nov. 1	46.93
Apr. 24	47.27	July 2	47.17	Oc . 10	46.98	Dec. 11	46.89
May 15	47.37	Aug. 4	47.02				

15. Floyd A. Edwards. SW¼SW¼ sec. 2, T. 24 S., R. 33 W.

Water level, in feet below measuring point, 1941

Jan. 29	15.18	Apr. 24	15.30	July 2	14.67	Oct. 1	14.13
Feb. 22	15.22	May 19	15.37	Aug. 5	14.23	Nov. 2	13.79
Mar. 19	15.25	June 3	14.97	Sept. 1	14.14	Nov. 30	13.62

16. George L. Meeker. NW¼NE¼NE¼ sec. 6, T. 24 S., R. 34 W.

Water level, in feet below measuring point, 1941

Jan. 19	42.64	Apr. 24	43.32	July 2	44.21	Oct. 1	43.07
Feb. 22	42.88	May 19	43.42	Aug. 5	42.43	Nov. 16	38.28
Mar. 19	43.07	June 3	43.04	Sept. 1	42.36	Dec. 7	37.05

17. SE¼SW¼NW¼ sec. 7, T. 24 S., R. 33 W. Measuring point, 2,878.5 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	7.60	Apr. 24	7.19	July 2	5.91	Oct. 1	6.60
Feb. 22	7.40	May 19	6.87	Aug. 5	6.22	Nov. 2	5.73
Mar. 19	7.26	June 3	6.42	Sept. 1	6.57	Dec. 7	5.48

18. A. Finnup. NW¼NW¼ sec. 17, T. 24 S., R. 34 W. Measuring point, 2,925.7 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	12.03	June 3	12.19	Sept. 1	10.57	Nov. 2	10.63
Apr. 24	11.97	July 2	10.74	Oct. 1	10.61	Dec. 7	10.37
May 19	12.22	Aug. 5	10.32				

19. H. E. Ramsey. SE¼SE¼ sec. 10, T. 23 S., R. 34 W. Measuring point, 2,938.3 feet above sea level.

Water level, in feet below measuring point, 1941

Feb. 22	32.38	May 19	32.55	Sept. 1	32.26	Nov. 2	31.59
Mar. 19	32.51	June 3	32.66	Oct. 1	31.91	Dec. 11	31.53
Apr. 24	32.48	July 2	32.56				

20. C. R. Rixon. SW¼SW¼ sec. 12, T. 23 S., R. 27 W. Measuring point, 2,627.8 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 30	67.60	Apr. 24	68.86	June 3	68.94	Oct. 2	68.99
Mar. 18	68.89	May 15	68.90	July 1	68.95	Nov. 13	68.93

Finney County--Continued

21. Lena Ramsey. NE¼NE¼ sec. 18, T. 23 S., R. 28 W. Measuring point, 2,765.2 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 30	100.27	Aug. 2	a 100.78	Nov. 13	100.36
June 3	100.51	Oct. 2	a 100.82	Dec. 4	100.36

22. Jacob Eichhorn. NW¼SW¼SW¼ sec. 18, T. 24 S., R. 31 W. Measuring point, 2,915.9 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	120.32	May 15	120.30	July 1	120.84	Nov. 13	120.93
Mar. 19	120.35	June 3	120.39	Oct. 2	120.96	Dec. 11	120.74
Apr. 24	120.35						

23. J. E. Ely. SE¼SW¼SE¼ sec. 4, T. 23 S., R. 32 W. Measuring point, 2,882.1 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	45.73	June 3	45.71	Sept. 2	45.46	Nov. 3	45.47
Apr. 24	45.74	July 1	45.67	Oct. 12	45.51	Dec. 7	45.45
May 15	45.78	Aug. 4	45.47				

26. Garden City Experiment Station. SW¼NE¼SE¼ sec. 3, T. 24 W. R. 32 W.

Water level, in feet below measuring point, 1941

Jan. 29	71.46	May 15	71.25	Aug. 4	70.78	Nov. 3	70.94
Mar. 19	71.39	June 3	71.10	Sept. 2	71.04	Dec. 7	70.69
Apr. 24	71.60	July 1	71.12	Oct. 12	71.05		

27. Farmers and Bankers Life Insurance Company. SE¼SW¼SE¼ sec. 34, T. 26 S., R. 31 W. Measuring point, 2,817.6 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	76.23	May 15	76.22	Aug. 4	77.19	Nov. 3	76.43
Mar. 19	76.20	June 3	76.20	Sept. 2	76.86	Dec. 11	76.16
Apr. 24	76.19	July 2	76.18	Oct. 12	76.57		

28. Andrew Layman. SW¼SE¼SE¼ sec. 36, T. 24 S., R. 34 W. Measuring point, 2,922.3 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	36.62	June 3	36.71	Sept. 1	36.66	Nov. 2	36.70
Apr. 24	36.65	July 2	36.69	Oct. 1	36.72	Dec. 11	36.68
May 19	36.68						

FORD COUNTY

By H. A. Waite

Highest and lowest water levels, in feet below measuring point, in 15 wells in Ford County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
2	27.35	Mar. 20, 1940	28.78	Sept. 5, 1939
8	5.78	Aug. 1, 1941	8.97	Nov. 7, 1939
11	11.31	Dec. 4, 1941	13.31	Jan. 24, 1940
15	35.01	Dec. 3, 1941	36.92	Sept. 5, 1939
38	39.87	Oct. 6, 1941	42.08	(Mar. 20, 1940 (May 16, 1940
41	46.49	July 22, 1940	47.53	July 1, 1939
48	6.33	July 11, 1941	10.85	Oct. 2, 1939
57	8.29	Dec. 4, 1941	10.93	Oct. 2, 1939
59	16.82	Dec. 4, 1941	18.21	Sept. 5, 1939
65	17.01	Dec. 3, 1941	18.70	Oct. 2, 1939
79B	7.45	Jan. 20, 1941	16.09	Aug. 1, 1939
79C	8.08	Dec. 4, 1941	10.69	Oct. 2, 1939
96	9.06	Dec. 4, 1941	11.02	Sept. 5, 1939
237	86.29	Nov. 12, 1941	86.92	Nov. 8, 1939
343	76.24	Dec. 4, 1941	76.85	Apr. 22, 1941

Net changes in water level in 1941, and net changes in water level for the period of record in 15 wells in Ford County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
2	3	1.43	+0.80	+0.94
8	3	3.19	+2.14	+1.20
11	3	2.00	+1.59	+1.47
15	3	1.91	+.17	+.46
38	3	2.21	+1.33	+1.47
41	3	1.04	+.23	+.40
48	3	4.52	+2.90	+3.27
57	3	2.64	+1.20	+.47
59	3	1.39	+1.00	+.84
65	3	1.69	+1.40	+.98
79B	3	8.64	a -3.14	+1.50
79C	3	2.61	+1.60	+1.44
96	3	1.96	+1.03	+1.40
237	3	.63	+.31	+.16
343	3	.61	+.51	+.44

Water-level measurements

2. L. A. Lamb. SW¼SW¼ sec. 4, T. 28 S., R. 22 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	28.35	May 2	28.28	Aug. 2	27.85	Nov. 12	27.66
Mar. 17	28.26	June 4	28.20	Sept.11	27.71	Dec. 4	27.55
Apr. 22	28.20	July 11	27.80	Oct. 6	27.87		

a Affected by heavy industrial pumping nearby.

Ford County--Continued

8. F. H. Diehl. NW¼NW¼ sec. 34, T. 26 S., R. 25 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	8.13	May 3	7.09	Aug. 1	5.78	Nov. 12	6.27
Mar. 17	7.18	June 6	6.89	Oct. 6	6.79	Dec. 4	5.99
Apr. 22	7.62	July 11	6.03				

11. Geo. W. Molitor. SW¼NW¼ sec. 36, T. 21 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 20	12.90	May 2	12.58	Aug. 2	11.70	Nov. 12	11.46
Mar. 17	12.71	June 5	12.56	Sept.11	11.84	Dec. 4	11.31
Apr. 22	12.59	July 11	11.67	Oct. 6	11.94		

15. George Lutz. SW¼NW¼ sec. 24, T. 29 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 21	35.18	May 16	35.33	Sept.11	35.27	Nov. 7	35.14
Mar. 17	35.21	June 11	35.18	Oct. 9	35.16	Dec. 3	35.01
Apr. 22	35.16	Aug. 7	35.21				

38. F. Burns. SE¼NE¼ sec. 1, T. 26 S., R. 24 W.

Water level, in feet below measuring point, 1941

Jan. 20	41.29	May 2	41.49	Aug. 2	40.51	Nov. 12	39.96
Mar. 17	41.39	June 5	41.42	Sept.11	40.00	Dec. 4	39.96
Apr. 22	41.49	July 11	40.99	Oct. 6	39.87		

41. J. J. Burghardt. NW¼SW¼ sec. 11, T. 25 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 20	46.88	June 5	47.10	Sept.12	46.75	Nov. 12	46.68
Mar. 17	47.03	July 11	46.69	Oct. 6	46.78	Dec. 4	46.65
Apr. 22	47.11	Aug. 2	46.67				

48. G. D. Cochran. NE¼SE¼ sec. 16, T. 27 S., R. 23 W.

Water level, in feet below measuring point, 1941

Jan. 20	9.79	May 2	9.50	Aug. 2	6.61	Nov. 12	7.11
Mar. 17	9.60	June 5	8.65	Sept.11	8.16	Dec. 4	6.89
Apr. 22	9.60	July 11	6.33	Oct. 6	8.70		

57. Andrew Bogner. NW¼SE¼ sec. 22, T. 26 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 20	9.49	May 3	9.39	Aug. 1	8.37	Nov. 12	8.54
Mar. 17	9.38	June 5	9.18	Sept.12	8.64	Dec. 4	8.29
Apr. 22	9.38	July 11	8.65	Oct. 6	8.80		

59. Ward Byers estate. NE¼NE¼ sec. 21, T. 26 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 20	17.82	May 3	17.80	Aug. 1	17.10	Nov. 12	17.01
Mar. 17	17.83	June 5	17.57	Sept.12	17.44	Dec. 4	16.82
Apr. 22	17.93	July 11	17.11	Oct. 6	17.42		

65. John N. Clark. SW¼SW¼ sec. 33, T. 26 S., R. 25 W.

Water level, in feet below measuring point, 1941

Jan. 21	18.41	May 3	18.13	Aug. 2	17.46	Nov. 12	17.22
Mar. 17	18.24	June 6	17.73	Sept.11	17.96	Dec. 3	17.01
Apr. 22	18.15	July 11	17.50	Oct. 6	17.88		

Ford County--Continued

79 B. A. N. Nevins. SW¼SW¼ sec. 23, T. 26 S., R. 24 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	7.45	May 3	10.94	Aug. 2	12.12	Nov. 12	11.19
Mar. 17	12.38	June 6	10.83	Sept.11	13.39	Dec. 4	10.59
Apr. 22	11.55	July 11	12.32	Oct. 6	11.87		

79 C. O. N. Nevins. SW¼SW¼ sec. 23, T. 26 S., R. 24 W.

Water level, in feet below measuring point, 1941

Jan. 20	9.68	May 3	9.34	Aug. 2	7.98	Nov. 12	8.26
Mar. 17	9.78	June 6	9.30	Sept.11	8.25	Dec. 4	8.08
Apr. 22	9.34	July 11	8.20	Oct. 6	8.37		

96. Henry Hattrup. SE¼NE¼ sec. 23, T. 26 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 20	10.09	May 2	9.84	Aug. 2	9.42	Nov. 12	9.17
Mar. 17	9.93	June 5	9.82	Sept.11	9.63	Dec. 4	9.06
Apr. 22	9.94	July 11	9.33	Oct. 6	9.67		

237. A. T. and S. F. Ry. NW¼NW¼ sec. 28, T. 25 S., R. 22 W.

Water level, in feet below measuring point, 1941

Jan. 20	86.64	May 2	86.67	Aug. 2	86.46	Nov. 12	86.29
Mar. 17	86.63	June 5	86.60	Sept.11	86.42	Dec. 4	86.33
Apr. 22	86.68	July 11	86.55	Oct. 6	86.37		

343. B. A. Schuette. NE¼NE¼ sec. 1, T. 26 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 20	76.75	May 3	76.74	Sept.11	76.83	Nov. 12	76.75
Mar. 17	76.80	June 5	76.78	Oct. 6	76.78	Dec. 4	76.24
Apr. 22	76.85	Aug. 2	76.75				

GRANT COUNTY

By T. G. McLaughlin

A survey of the geology and ground-water resources of Grant and Haskell Counties, Kansas, was begun in the summer of 1941 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.

Grant County--Continued

The investigation was made under the supervision of S. W. Lohman, Federal geologist in charge of ground-water investigations in Kansas. Ground-water investigations were made in a part of this area by Haworth[1/] in 1897 and by Darton[2/] in 1913.

Grant and Haskell are adjacent counties in southwestern Kansas. The area is a relatively flat plain except in local areas of sand dunes, and in the valleys of Cimarron River and its tributaries. Both counties are underlain by thick deposits of sand, silt, and gravel of Tertiary and Quaternary age. All wells in these counties obtain water from these deposits.

Twenty-eight wells were selected for monthly observation of water levels--14 in Grant County and 14 in Haskell County. A total of 190 wetted-tape measurements was made in 1941. All water-level measurements were made by Woodrow W. Wilson.

Well descriptions and water-level measurements

1. F. C. Williams SE¼SE¼ sec. 30, T. 27 S., R. 37 W. Unused drilled stock well, diameter 6 inches, depth 57 feet. Measuring point, top of casing, west side, 0.45 foot above land surface, 3,077.9 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
May 14	44.88	Oct. 16	45.48	Dec. 2	44.81
Sept.16	45.51	Nov. 17	44.71		

2. J. B. Shorier. NE¼NE¼ sec. 26, T. 27 S., R. 38 W. Unused drilled domestic and stock well, diameter 6 inches, depth 60 feet. Measuring point, top of casing, north side, level with land surface, 3,096.3 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

May 14	46.05	July 14	46.07	Nov. 17	45.68
June 12	45.98	Oct. 16	45.75	Dec. 2	45.55

3. A.G. Dyck. SW¼SE¼ sec. 8, T. 28 S., R. 38 W. Unused drilled well, diameter 6 inches, depth 52 feet. Measuring point, top of casing, south side, 0.7 foot above land surface, 3,119.35 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 14	46.30	July 14	46.11	Sept.16	46.50	Nov. 17	46.78
June 12	46.14	Aug. 11	46.23	Oct. 16	46.62	Dec. 2	46.29

1/ Haworth, Erasmus, Underground waters of southwestern Kansas: U. S. Geol. Survey Water-Supply Paper 6, 65 pp., 12 pls., 2 figs., 1897.

2/ Darton, N. H., U. S. Geol. Survey Geol. Atlas, Syracuse - Lakin folio (No. 212) 10 pp., illus., 1920.

Grant County--Continued

4. F. J. Andes. SE¼SE¼ sec. 9, T. 27 S., R. 38 W. Unused drilled domestic and stock well, diameter 8 inches, depth 99 feet. Measuring point, top edge of 8-inch hole in concrete base, south side, 0.7 foot above land surface, 3,150.00 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 14	88.22	Aug. 11	87.95	Oct. 16	87.55	Dec. 2	87.25
June 12	88.15	Sept.16	87.78	Nov. 17	87.34		

5. C. L. Jury. NE¼SE¼ sec. 4, T. 27 S., R. 37 W. Unused drilled domestic and stock well, diameter 6 inches, depth 78 feet. Measuring point, top of casing, 0.4 foot above land surface, 3,070.29 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

May 14	67.40	July 14	67.16	Sept.16	67.29	Nov. 17	67.13
June 12	67.42	Aug. 11	67.22	Oct. 16	66.94	Dec. 2	67.19

6. Craig Howard. NW¼SW¼ sec. 16, T. 27 S., R. 35 W. Unused drilled stock well, diameter 6 inches, depth 182 feet. Measuring point, top of casing, east side, 0.7 foot above land surface, 3,084.89 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

May 27	175.75	July 14	175.69	Sept.16	175.80	Nov. 17	175.70
June 12	175.73	Aug. 11	175.65	Oct. 16	175.83	Dec. 2	175.65

7. Ethel W. Hoffman. SE¼SW¼ sec. 36, T. 28 S., R. 36 W. Unused drilled domestic and stock well, diameter 6 inches, depth 91 feet. Measuring point, top of casing, north side, 0.9 foot above land surface, 3,041.94 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

May 27	83.03	July 14	83.14	Oct. 16	83.09	Dec. 2	83.06
June 12	83.14	Aug. 11	83.05	Nov. 17	83.14		

8. E. O. Stuart. NW¼NE¼ sec. 33, T. 29 S., R. 35 W. Unused drilled stock well, diameter 4 inches, depth 77 feet. Measuring point, top of casing, south side, 0.8 foot above land surface, 2,953.52 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

May 27	59.83	July 14	59.61	Sept.16	59.63	Nov.17	59.73
June 12	59.79	Aug. 11	59.59	Oct. 16	59.66	Dec. 2	59.71

9. Mr. Robinson. NE¼SW¼ sec. 27, T. 28 S., R. 37 W. Unused drilled domestic well, diameter 6 inches, depth 77 feet. Measuring point, top of casing, north side, level with land surface, 3,052.69 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

May 28	72.26	July 14	72.35	Sept.16	72.36	Nov. 17	72.49
June 12	72.23	Aug. 11	72.42	Oct. 16	72.40	Dec. 2	72.40

10. E. F. Fowler and Harry Joyce. NW¼SW¼ sec. 27, T. 30 S., R. 37 W., situated 25 feet west of house. Unused drilled domestic and stock well, diameter 6 inches, depth 16 feet. Measuring point, top of casing, level with land surface, 2,983.54 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

May 28	11.49	July 14	11.39	Sept.16	12.19	Nov. 17	11.83
June 12	11.57	Aug. 11	12.05	Oct. 16	11.62	Dec. 2	11.88

Grant County--Continued

11. J. A. Hoffman. SE¼SW¼ sec. 36, T. 28 S., R. 38 W. Unused drilled school well, diameter 4 inches, depth 69 feet. Measuring point, top of casing, south side, 0.2 foot above land surface, 3,101.08 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
May 28	47.43	July 14	47.35	Nov. 17	47.20
June 12	47.40	Oct. 16	47.35	Dec. 2	47.27

13. Fred Powell. NW¼NE¼ sec. 5, T. 29 S., R. 36 W., situated 200 feet south of U. S. Highway 160. Unused drilled well, diameter 4 inches, depth 119 feet. Measuring point, top of casing, east side, 0.5 foot above land surface, 3,063.99 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 30	107.05	July 14	107.08	Sept.16	107.04	Nov. 17	106.92
June 12	107.03	Aug. 11	107.02	Oct. 16	106.99	Dec. 2	106.88

14. Mr. Hall. NE¼SW¼ sec. 31, T. 28 S., R. 36 W., situated 75 feet northwest of small wooden building. Unused drilled well, diameter 6 inches, depth more than 300 feet. Measuring point, top of casing, east side, 1.1 feet above land surface, 3,092.29 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

May 30	131.57	July 14	131.49	Sept.16	131.46	Nov. 17	131.33
June 12	131.56	Aug. 11	131.43	Oct. 16	131.34	Dec. 2	131.33

15. Perry Campbell. SE¼SW¼ sec. 20, T. 29 S., R. 37 W. Unused drilled domestic and stock well, diameter 5 inches, depth 82 feet. Measuring point, top of casing, southeast side, 0.1 foot above land surface, 3,090.62 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

May 30	74.16	Aug. 11	74.28	Oct. 16	74.19	Dec. 2	74.17
July 14	74.11	Sept.16	74.16	Nov. 17	74.25		

GRAY COUNTY

By B. F. Latta

Highest and lowest water levels, in feet below measuring point, in 22 wells in Gray County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	4.48	June 13, 1941	8.56	Oct. 8, 1940
3	164.70	Nov. 13, 1939	165.24	Aug. 29, 1940
4	15.94	Dec. 4, 1941	18.75	Aug. 29, 1940
6	88.12	(Dec. 30, 1940 (Sept.10, (Oct. 9, 1941	88.37	Oct. 8, 1940
7	77.98	Oct. 8, 1940	78.70	May 22, 1940
8	5.82	June 13, 1941	10.70	Oct. 7, 1939

Gray County--Continued

Highest and lowest water levels, in feet below measuring point, in 22 wells in Gray County, 1941--Continued

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
9	90.05	May 24, 1941	90.93	May 22, 1940
11	59.41	Oct. 8, 1941	59.83	(Mar. 21, (May 22, 1940
12	133.65	Nov. 13, 1939	134.26	Mar. 18, 1941
14	45.47	Sept.10, 1941	46.49	Nov. 13, 1939
16	138.22	Nov. 15, 1941	139.03	Oct. 12, 1939
17	84.40	July 21, 1941	85.35	May 24, 1941
18	49.22	Dec. 29, 1940	50.05	Aug. 29, 1940
19	12.88	Dec. 4, 1941	15.02	Aug. 29, 1940
20	20.72	June 21, 1940	22.03	Nov. 4, 1940
21	89.69	Sept.10, 1941	89.91	Dec. 4, 1940
22	126.87	Mar. 18, 1941	127.25	July 21, 1941
23	111.31	Mar. 22, 1940	113.28	Nov. 4, 1940
26	108.84	Nov. 12, 1941	113.72	Dec. 14, 1939
27	57.79	Mar. 18, 1941	60.84	Feb. 15, 1940
28	82.07	June 14, 1941	82.60	(Dec. 14, 1939 (Jan. 26, (July 23, 1940
29	110.77	June 21, 1940	112.50	Oct. 8, 1940

Net changes in water level in 1941, and net changes in water level for the period of record in 22 wells in Gray County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	2	4.08	+2.38	+2.91
3	2	.54	-.12	+.18
4	2	2.81	+1.8	+2.43
6	2	.25	-.09	-.02
7	2	.72	-.37	+.04
8	2	4.88	+2.32	+3.54
9	2	.88	-.01	+.05
11	2	.42	+.15	+.21
12	2	.61	+.13	+.56
14	2	1.02	+.57	+.37
16	2	.81	+.11	+.74
17	2	.95	+.49	+.23
18	2	.83	-.32	+.25
19	2	2.14	+1.68	+1.99
20	2	1.31	+.47	+.55
21	2	.22	-.02	+.02
22	2	.38	-.15	-.07
23	2	1.97	+1.47	+.57
26	3	4.88	+1.9	+4.05
27	2	3.05	-.86	+1.61
28	2	.53	+.05	+.26
29	2	1.73	+.03	+1.27

Gray County--Continued

Water-level measurements

1. G. A. Hard. NW¼SE¼SW¼ sec. 20, T. 25 S., R. 29 W. Measuring point, 2,688.3 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	7.47	June 13	4.48	Sept.11	7.31	Nov. 12	5.71
Apr. 22	7.43	July 11	6.29	Oct. 6	7.14	Dec. 4	5.43
May 22	7.16	Aug. 1	6.79				

3. N. A. Mans. NE¼SW¼NW¼ sec. 7, T. 28 S., R. 27 W. Measuring point, 2,781.1 feet above sea level.

Water level, in feet below measuring point, 1941

Apr. 26	164.77	July 21	164.73	Sept.10	164.80	Nov. 12	164.81
May 24	164.77	Aug. 7	164.80	Oct. 9	164.90	Dec. 26	164.85
June 14	164.92						

4. F. Luther. NW¼SW¼NE¼ sec. 10, T. 26 S., R. 28 W. Measuring point, 2,637.4 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	17.68	June 13	16.96	Sept.11	a 18.24	Nov. 12	16.24
Apr. 22	17.75	July 11	16.60	Oct. 6	17.58	Dec. 4	15.94
May 22	17.64						

6. S. Dirks. SE¼NE¼NE¼ sec. 5, T. 28 S., R. 29 W. Measuring point, 2,773.3 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	88.16	June 14	88.14	Sept.10	88.12	Nov. 15	88.15
Apr. 26	88.19	July 21	88.17	Oct. 9	88.12	Dec. 26	88.21
May 24	88.25	Aug. 9	88.35				

7. P. Brietenbach et al. SE¼SW¼SE¼ sec. 36, T. 26 S., R. 29 W. Measuring point, 2,734.7 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	78.16	June 14	78.33	Sept.10	78.32	Nov. 15	78.35
Apr. 26	78.25	July 21	78.26	Oct. 9	78.39	Dec. 26	78.44
May 24	78.23	Aug. 9	78.30				

8. NW¼NE¼SE¼ sec. 11, T. 26 S., R. 28 W. Measuring point, 2,612.1 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	9.49	June 13	5.82	Sept.11	8.09	Nov. 12	7.21
Apr. 22	9.55	July 11	6.76	Oct. 6	7.90	Dec. 4	7.16
May 22	8.55	Aug. 1	6.05				

9. L. Naftziger. NE¼SE¼NE¼ sec. 24, T. 24 S., R. 29 W. Measuring point, 2,761.8 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	90.85	June 13	90.78	Sept.11	90.85	Nov. 12	90.84
Apr. 22	90.89	July 11	90.90	Oct. 6	90.87	Dec. 4	90.83
May 24	90.05	Aug. 1	90.86				

a Pumped for irrigation during previous month.

Gray County--Continued

11. J. D. Wetmore. NE¼NE¼ sec. 35, T. 29 S., R. 28 W. Measuring point, 2,630.6 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	59.68	June 14	59.79	Sept. 9	59.45	Nov. 6	59.44
Apr. 26	59.75	July 15	59.56	Oct. 8	59.41	Dec. 26	59.43
May 24	59.78	Aug. 6	59.47				

12. Mary Hill. SE¼SE¼SE¼ sec. 26, T. 28 S., R. 27 W. Measuring point, 2,711.4 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	134.26	June 14	133.71	Sept.10	133.85	Nov. 15	133.87
Apr. 26	133.76	July 21	133.81	Oct. 9	133.93	Dec. 26	133.68
May 24	133.79	Aug. 7	133.82				

13. G. Bowser. SW¼NW¼NW¼ sec. 24, T. 24 S., R. 28 W. Measuring point, 2,719.6 feet above sea level. Measurements discontinued in January 1941.

14. Sarah Marney. SE cor. SW¼SE¼ sec. 25, T. 29 S., R. 27 W. Measuring point, 2,572.2 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	46.25	June 14	46.32	Sept.10	45.47	Nov. 15	45.56
Apr. 26	46.37	July 21	46.33	Oct. 9	45.89	Dec. 26	45.79
May 24	46.42	Aug. 7	46.35				

16. Ed Wallace. NE cor. NW¼ sec. 19, T. 29 S., R. 30 W. Measuring point, 2,823.9 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	138.38	June 14	138.42	Sept.10	138.26	Nov. 15	138.22
Apr. 26	138.43	July 21	138.42	Oct. 9	138.30	Dec. 3	138.29
May 24	138.26	Aug. 9	138.38				

17. V. E. Yeager. NE cor. NW¼NE¼ sec. 31, T. 28 S., R. 29 W. Measuring point, 2,762.5 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	85.33	June 14	85.01	Sept.10	84.53	Nov. 15	84.60
Apr. 26	a 86.66	July 21	84.40	Oct. 9	84.61	Dec. 26	84.79
May 24	85.35	Aug. 9	84.45				

18. W. H. Mace. SE¼NE¼ sec. 25, T. 29 S., R. 29 W. Measuring point, 2,672.5 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	49.78	June 14	49.72	Sept.10	49.77	Nov. 15	49.55
Apr. 26	49.89	July 21	49.75	Oct. 9	49.59	Dec. 26	49.54
May 24	49.76	Aug. 9	49.73				

19. M. E. Kraushaar. NW¼NW¼ sec. 35, T. 25 S., R. 29 W. Measuring point, 2,671.1 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	14.42	June 13	13.10	Sept.11	14.27	Nov. 12	13.18
Apr. 22	13.98	July 11	13.57	Oct. 6	14.19	Dec. 4	12.88
May 22	14.25	Aug. 1	13.68				

20. R. and E. Fischer. SE¼SW¼NE¼ sec. 23, T. 25 S., R. 30 W. Measuring point, 2,723.2 feet above sea level. Water levels, in feet below measuring point, 1941: Mar. 18, 21.98; Oct. 6, 21.64; Nov. 12, 21.58; Dec. 4, 21.35.

a Pumped prior to measurement.

Gray County--Continued

21. C. M. Davis. NW¼SW¼ sec. 7, T. 26 S., R. 29 W. Measuring point, 2,785.6 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	89.79	June 14	89.86	Sept.10	89.69	Nov. 15	89.76
Apr. 26	89.83	July 21	89.86	Oct. 9	89.82	Dec. 26	89.81
May 24	89.83	Aug. 9	89.84				

22. C. Salem. SW¼SE¼SE¼ sec. 15, T. 27 S., R. 27 W. Measuring point, 2,706.7 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	126.87	June 14	126.96	Sept.10	126.96	Nov. 15	126.96
Apr. 26	126.90	July 21	127.25	Oct. 9	126.89	Dec. 26	127.08
May 24	126.93	Aug. 7	126.94				

23. Fry. NW¼SE¼ sec. 24, T. 28 S., R. 29 W., in Montezuma. Measuring point, 2,783.0 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	112.84	June 14	112.89	Sept.10	111.71	Nov. 15	112.96
Apr. 26	111.47	July 21	112.72	Oct. 9	111.49	Dec. 26	111.42
May 24	112.69	Aug. 9	112.91				

24. J. W. Herb. NW¼NE¼ sec. 3, T. 27 S., R. 27 W. Measuring point, 2,656.8 feet above sea level. Water levels, in feet below measuring point, 1941: Mar. 18, 76.21; Apr. 26, 76.61; May 24, 76.53; Oct. 9, 76.48. Measurements discontinued Oct. 9, 1941.

26. Arthur Adams. NE¼SE¼ sec. 2, T. 26 S., R. 27 W. Measuring point, 2,694.3 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	111.48	June 13	110.60	Sept.11	109.29	Nov. 12	108.84
Apr. 22	111.50	July 11	109.82	Oct. 6	109.29	Dec. 4	109.31
May 24	111.10	Aug. 1	109.17				

27. H. E. Hettrick. NW¼SE¼NW¼ sec. 36, T. 26 S., R. 28 W. Measuring point, 2,674.4 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	57.79	July 15	59.26	Sept. 9	59.20	Nov. 6	58.55
May 24	58.64	Aug. 6	59.29	Oct. 8	58.34	Dec. 26	58.97
June 14	59.16						

28. W. H. McLaughton. SE¼SE¼ sec. 14, T. 27 S., R. 29 W. Measuring point, 2,750.7 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	82.29	June 14	82.07	Sept.10	82.25	Nov. 15	82.28
Apr. 26	82.27	July 21	82.10	Oct. 9	82.17	Dec. 26	82.30
May 24	82.16	Aug. 9	82.25				

29. A. F. Hohner. SE¼NW¼ sec. 2, T. 28 S., R. 30 W. Measuring point, 2,811.5 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 18	112.21	May 24	110.84	Sept.10	111.16	Nov. 15	110.88
Apr. 26	110.89	June 14	110.87	Oct. 9	110.90	Dec. 26	110.98

HAMILTON COUNTY

By T. G. McLaughlin

Highest and lowest water levels, in feet below measuring point, in 16 wells in Hamilton County, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	25.64	Nov. 29, 1941	26.93	May 15, 1940
2	26.68	July 18, 1941	28.14	Nov. 22, 1940
3	12.51	July 17, 1941	14.92	Nov. 16, 1939
4	16.88	June 22, 1940	21.67	Dec. 19, 1939
5	15.70	June 22, 1940	17.88	Nov. 16, 1939
6	52.05	June 7, 1941	55.04	Nov. 16, 1939
7	45.18	Nov. 16, 1941	46.00	Nov. 27, 1940
8	147.18	Dec. 23, 1940	147.97	Mar. 15, 1941
9	190.18	(Dec. 23, 1940) (Nov. 16, 1941)	190.60	Oct. 10, 1939
13	56.61	Dec. 16, 1941	57.52	June 17, 1940
16	84.92	Oct. 28, 1941	85.83	Feb. 19, 1940
17	42.86	Aug. 24, 1941	44.48	(May 15,) (July 18, 1940)
19	128.97	May 15, 1940	129.23	Feb. 19, 1940
22	109.18	Oct. 20, 1941	118.16	May 1, 1941
27	171.16	May 6, 1941	171.78	Nov. 16, 1939
28	221.48	Apr. 20, 1940	222.46	Dec. 31, 1941

Net changes in water level in 1941, and net changes in water level for the period of record in 16 wells in Hamilton County

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	2	1.29	+1.14	+0.51
2	2	1.46	+.85	+.51
3	2	2.41	+1.93	+1.46
4	2	4.79	+1.62	+1.62
5	2	2.18	+.02	+.58
6	2	2.99	+.91	+2.23
7	2	.82	+.20	+.57
8	2	.79	-.19	-.25
9	2	.42	-.23	-.11
13	2	.91	+.54	+.63
16	2	.91	-.04	+.80
17	2	1.62	+1.43	+1.27
19	2	.26	-.11	+.02
22	2	8.98	+1.14	+6.84
27	2	.62	-.03	-.01
28	2	.98	-.11	-.69

Water-level measurements

1. R. E. Bray, Jr. NE¼NE¼ sec. 32, T. 23 S., R. 41 W. Measuring point, 3,284.9 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 25	26.78	May 1	26.70	Oct. 20	26.01	Nov. 29	25.64
Apr. 18	26.17	Aug. 24	25.63	Nov. 10	25.94		

Hamilton County--Continued

2. R. Holdren. NW¼NW¼ sec. 23, T. 23 S., R. 43 W. Measuring point, 3,369.2 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	27.55	June 12	27.16	Sept.18	26.98	Nov. 10	26.86
Feb. 25	27.52	July 18	26.68	Oct. 20	27.18	Nov. 29	26.70
Apr. 18	27.42	Aug. 24	26.95				

3. B. Rees. SW¼NW¼ sec. 8, T. 24 S., R. 40 W. Measuring point, 3,223.6 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	14.89	Apr. 23	14.89	July 17	12.51	Oct. 20	13.12
Feb. 25	14.90	May 1	14.85	Aug. 24	13.16	Nov. 10	13.04
Mar. 15	14.89	June 7	12.93	Sept.22	12.79	Nov. 29	12.96

4. Continental Life Insurance Co. Center sec. 14, T. 24 S., R. 40 W. Measuring point, 3,204.7 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	21.09	Apr. 23	21.47	July 17	18.81	Oct. 20	18.63
Feb. 25	21.27	May 1	21.60	Aug. 24	19.37	Nov. 10	18.97
Mar. 15	21.22	June 7	18.59	Sept.22	18.99	Nov. 29	19.47

5. W. A. Dunn. SE¼NE¼ sec. 20, T. 24 S., R. 39 W. Measuring point, 3,172.2 feet above sea level.

Water level, in feet below measuring point, 1941

Feb. 25	16.75	Apr. 23	16.80	Aug. 24	16.81	Nov. 10	16.73
Mar. 15	16.70	May 1	16.80	Oct. 20	16.75		

6. Bell Heinlein. SW¼SE¼ sec. 24, T. 24 S., R. 39 W. Measuring point, 3,181.8 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	53.42	Apr. 23	53.27	July 17	52.43	Oct. 20	52.97
Feb. 25	53.36	May 1	53.08	Aug. 24	52.80	Nov. 10	52.67
Mar. 15	53.35	June 7	52.05	Sept.22	53.18	Nov. 29	52.51

7. I. E. Martin. NW¼SW¼ sec. 16, T. 23 S., R. 40 W.

Water level, in feet below measuring point, 1941

Feb. 25	45.40	May 5	45.50	Aug. 24	45.42	Nov. 16	45.18
Mar. 15	45.48	June 7	45.57	Oct. 28	45.43	Dec. 16	45.20
Apr. 23	45.52	July 17	45.46				

8. R. D. Woodman. SW¼NW¼ sec. 21, T. 22 S., R. 40 W. Measuring point, 3,513.8 feet above sea level.

Water level, in feet below measuring point, 1941

Feb. 25	147.28	May 5	147.56	Aug. 24	147.33	Nov. 16	147.25
Mar. 15	147.97	June 7	147.35	Sept.22	147.35	Dec. 16	147.47
Apr. 23	147.44	July 17	147.31	Oct. 28	147.53		

9. Inez Dikeman. SE¼SE¼ sec. 21, T. 21 S., R. 40 W.

Water level, in feet below measuring point, 1941

Mar. 15	190.20	May 5	190.32	Aug. 24	190.31	Nov. 16	190.18
Apr. 23	190.44	July 17	190.29	Oct. 28	190.44	Dec. 16	190.43

11. M. Williamson. NE¼NW¼ sec. 18, T. 26 S., R. 40 W. Measurements discontinued in January 1941.

12. I. E. Martin. NE¼SW¼ sec. 2, T. 22 S., R. 41 W. Measurements discontinued in January 1941.

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Hamilton County--Continued

13. Carl Lewis. SE¼SW¼ sec. 13, T. 21 S., R. 42 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 15	57.15	June 7	57.21	Aug. 24	56.81	Nov. 16	56.68
Apr. 23	57.21	July 17	56.68	Oct. 28	56.72	Dec. 16	56.61
May 5	57.24						

16. Chas. H. Miller. SE¼SW¼ sec. 22, T. 25 S., R. 39 W.

Water level, in feet below measuring point, 1941

Feb. 25	84.98	May 6	85.08	Aug. 24	84.97	Nov. 9	85.00
Mar. 15	85.00	June 7	85.10	Sept.22	84.96	Dec. 31	85.02
Apr. 23	85.29	July 17	85.23	Oct. 28	84.92		

17. Thos. A. Wells. NW¼NW¼ sec. 11, T. 25 S., R. 39 W.

Water level, in feet below measuring point, 1941

Feb. 25	44.42	May 6	44.44	Aug. 24	42.86	Nov. 9	42.96
Mar. 15	44.42	June 7	44.12	Oct. 28	43.15	Dec. 31	42.99
Apr. 23	44.44						

19. W. E. Bereman. NW¼NE¼ sec. 26, T. 26 S., R. 39 W. Measuring point, 3,298.6 feet above sea level.

Water level, in feet below measuring point, 1941

Feb. 25	129.00	May 6	129.13	Aug. 24	129.11	Nov. 9	129.09
Mar. 15	129.03	June 7	129.18	Sept.22	129.16	Dec. 31	129.11
Apr. 23	129.22	July 17	129.15	Oct. 28	129.12		

20. Alpha H. Bennett. SW¼SW¼ sec. 2, T. 24 S., R. 43 W. Measurements discontinued in January 1941.

22. T. J. Crist. NW¼SW¼ sec. 26, T. 24 S., R. 43 W. Measuring point, 3,489.3 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	110.47	Apr. 18	116.78	July 18	113.25	Oct. 20	109.18
Feb. 25	112.41	May 1	118.16	Aug. 24	113.76	Nov. 10	109.26
Mar. 15	114.51	June 7	117.56	Sept.18	110.48	Nov. 29	109.33

24. Eugene Scherick. NE¼NW¼ sec. 5, T. 26 S., R. 42 W. Measurements discontinued in January 1941.

26. J. C. Kitch. NW¼NW¼ sec. 23, T. 26 S., R. 42 W. Measurements discontinued in January 1941.

27. B. M. Rupert. SE¼SE¼ sec. 24, T. 25 S., R. 40 W. Measuring point, 3,361.4 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 15	171.28	May 6	171.16	July 17	171.42	Nov. 9	171.29
Apr. 23	171.61	June 7	171.18	Oct. 28	171.28	Dec. 31	171.31

28. A. S. and F. J. Gilliam. SE¼SE¼ sec. 13, T. 22 S., R. 39 W. Measuring point, 3,410.5 feet above sea level. Water levels, in feet below measuring point, 1941: Apr. 23, 222.35; Oct. 18, 222.40; Nov. 10, 222.43; Dec. 31, 222.46.

HARVEY COUNTY

By C. C. Williams and G. H. von Hein

Highest and lowest water levels, in feet below measuring point, in 25 wells in Harvey County that are not affected by pumping, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
72	22.46	Dec. 17, 1941	25.85	Oct. 7, 1937
136	12.08	Aug. 4, 1941	14.65	Apr. 1, 1938
294	39.75	Aug. 20, 1938	43.92	Apr. 3, 1938
				4, 1938
				5, 1938
325	12.03	July 8, 1941	14.21	June 4, 1939
701	37.85	Dec. 2, 1941	44.75	Nov. 2, 1938
817	13.84	Oct. 24, 1941	17.92	Oct. 25, 1940
824	14.39	July 8, 1941	20.76	Nov. 5, 1940
831	17.35	Nov. 10, 1941	21.54	Nov. 5, 1940
832	17.15	Nov. 10, 1941	20.85	Nov. 5, 1940
833	8.29	July 8, 1941	11.63	June 4, 1941
852	13.78	Nov. 10, 1941	17.66	Nov. 5, 1940
853	8.15	Nov. 7, 1941	11.51	May 29, 1941
854	11.41	July 5, 1941	15.37	Nov. 1, 1940
875	2.29	July 5, 1941	7.74	Oct. 25, 1940
876	28.20	Dec. 5, 1941	30.53	Nov. 8, 1940
877	16.41	July 18, 1941	17.65	Jan. 27, 1941
		21, 1941		28, 1941
		22, 1941		
880	4.06	July 5, 1941	8.10	Nov. 19, 1940
881	4.54	July 5, 1941	8.02	Nov. 11, 1940
888	.49	July 5, 1941	9.65	Oct. 27, 1939
889	3.87	May 24, 1940	8.79	Nov. 29, 1940
890	4.82	Nov. 10, 1941	7.37	Nov. 5, 1940
891	2.17	July 8, 1941	4.92	Sept. 3, 1941
892	2.88	July 8, 1941	5.72	Oct. 3, 1940
893	2.51	July 8, 1941	5.67	Nov. 5, 1940
1174	7.15	Oct. 27, 1941	10.51	Jan. 27, 1941

Net changes in water level in 1941, and net changes in water level for the period of record in 25 wells in Harvey County that are not affected by pumping

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
72	4	3.39	+1.81	+3.39
136	4	2.57	+ .79	+1.98
294	4	4.17	+3.06	+3.81
325	4	2.18	+2.04	+1.85
701	3	6.90	+ .40	+2.64
817	3	4.08	+2.30	+1.05
824	3	6.37	+5.14	+1.87
831	3	4.19	+2.96	+1.38
832	3	3.70	+2.45	+ .91
833	3	3.34	+2.17	+ .34
852	3	3.88	+2.86	+1.40
853	3	3.36	+2.45	+1.13
854	3	3.96	+3.01	+1.01
875	3	5.45	+1.62	+ .62
876	3	2.33	+1.01	- .55
877	3	1.24	+ .96	+ .95

Harvey County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 25 wells in Harvey County that are not affected by pumping

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
880	3	4.04	+1.21	+1.05
881	3	3.48	+1.01	+ .65
888	3	9.16	+2.89	+ .86
889	3	4.92	+2.34	- .70
890	3	2.55	+2.10	+ .73
891	3	2.75	+1.36	+2.00
892	3	2.84	+1.58	+1.99
893	3	3.16	+1.79	+1.69
1174	1	3.36	+2.04	+2.11

Highest and lowest water levels, in feet below measuring point, in 94 wells in Harvey County that are pumped or affected by pumping, 1941

Well	Highest recorded water level (feet)	Date	Lowest recorded water level when not pumping (feet)	Date
506	14.30	May 11, 1940	19.46	Aug. 11, 1941
507	7.06	May 24, 1940	15.86	Oct. 3, 1941
821	13.03	Aug. 21, 1939	17.07	Dec. 26, 1941
839	10.62	Aug. 21, 1939	16.78	Oct. 6, 1941
872	18.15	Mar. 11, 1939	24.60	Dec. 15, 1941
873	18.11	Mar. 11, 1939	24.80	Dec. 15, 1941
874	20.54	May 27, 1940	37.34	Sept.24, 1940
878	16.55	June 3, 1940	20.96	Dec. 19, 1941
				26, 1941
879	18.02	May 27, 1940	23.65	Sept. 5, 1941
		June 3, 1940		
883	14.05	Aug. 21, 1939	19.57	Dec. 9, 1940
884	13.94	Aug. 21, 1939	19.53	Dec. 9, 1940
885	13.82	Aug. 21, 1939	20.65	Dec. 9, 1940
886	3.14	Aug. 21, 1939	9.38	Sept.16, 1940
887	3.52	May 27, 1940	10.39	Sept.16, 1940
894	12.66	May 27, 1940	19.37	Sept.10, 1940
895	12.74	May 27, 1940	21.44	Sept.15, 1941
899	14.81	June 10, 1940	15.77	Oct. 21, 1940
1112	18.60	June 3, 1940	19.69	Nov. 4, 1940
1192	16.84	July 14, 1941	17.42	May 28, 1941
M-1	20.56	Apr. 13, 1939	34.84	Jan. 28, 1941
M-1a	18.17	June 3, 1940	29.67	Jan. 28, 1941
M-1b	16.64	June 3, 1940	30.72	Oct. 8, 1941
M-2	20.33	May 4, 1939	44.15	July 21, 1941
M-2a	18.54	June 3, 1940	41.60	Sept. 9, 1940
M-2b	20.75	May 27, 1940	32.24	Sept. 9, 1940
M-3	25.20	May 8, 1939	42.57	Aug. 25, 1941
M-3a	20.83	May 27, 1940	38.62	Aug. 25, 1941
M-3b	24.13	May 27, 1940	42.90	Aug. 25, 1941
M-4	25.12	May 27, 1940	43.73	July 21, 1941
M-4a	23.67	May 27, 1940	39.56	July 7, 1941
M-4b	24.71	May 27, 1940	39.14	July 7, 1941
M-5	22.33	May 16, 1939	40.46	Oct. 8, 1941
M-5a	18.59	June 3, 1940	27.18	Oct. 8, 1941
M-5b	18.82	May 27, 1940	27.03	Oct. 8, 1941
M-6	21.05	May 27, 1940	28.93	Sept. 9, 1940
M-6a	19.63	June 3, 1940	26.59	Aug. 25, 1941
M-6b	19.46	June 3, 1940	26.45	Aug. 25, 1941
M-7	13.03	June 13, 1939	20.46	Sept.10, 1941
M-7a	12.10	Aug. 21, 1939	19.30	Sept.10, 1941

Harvey County--Continued

Highest and lowest water levels, in feet below measuring point, in 94 wells in Harvey County that are pumped or affected by pumping, 1941--Continued

Well	Highest recorded water level (feet)	Date	Lowest recorded water level when not pumping (feet)	Date
M-7b	12.04	Aug. 21, 1939	19.12	Sept.10, 1941
M-8	17.93	May 27, 1940	26.71	Nov. 11, 1941
M-8a	15.62	June 3, 1940	23.00	Nov. 11, 1941
M-8b	14.30	June 3, 1940	21.80	Nov. 11, 1941
M-9	12.82	May 27, 1940	20.94	Dec. 1, 1941
M-9a	11.30	May 27, 1940	18.96	Dec. 1, 1941
M-9b	10.22	May 27, 1940	17.81	Dec. 1, 1941
M-10	14.05	May 27, 1940	24.40	Sept.10, 1941
M-10a	12.04	May 27, 1940	21.01	Sept.10, 1941
M-10b	11.24	May 27, 1940	19.76	Sept.10, 1941
M-11	9.11	May 27, 1940	17.84	Sept.10, 1941
M-11a	7.38	May 27, 1940	15.63	Sept.10, 1941
M-11b	8.47	May 27, 1940	16.69	Sept.10, 1941
M-12	13.41	Aug. 21, 1939	22.47	Aug. 26, 1941
M-12a	11.73	May 27, 1940	20.65	Aug. 26, 1941
M-12b	12.40	May 27, 1940	21.33	Aug. 26, 1941
		Aug. 21, 1939		
M-13	10.27	Aug. 21, 1939	17.36	May 19, 1941
M-13a	8.69	May 27, 1940	15.75	Oct. 17, 1941
M-13b	8.43	May 27, 1940	16.39	Oct. 17, 1941
M-14	11.07	May 27, 1940	20.08	Sept.10, 1941
M-14a	9.11	Apr. 4, 1939	17.96	Sept.10, 1941
M-14b	8.96	May 13, 1940	17.67	Sept.10, 1941
		27, 1940		15, 1941
		June 3, 1940		
M-15	14.92	Apr. 17, 1939	23.09	Dec. 23, 1940
M-15a	13.19	May 27, 1940	21.12	Dec. 23, 1940
M-15b	14.25	May 27, 1940	22.39	Dec. 23, 1940
M-16	12.71	Aug. 21, 1939	19.92	Apr. 17, 1941
M-16a	11.93	Aug. 21, 1939	18.64	Apr. 17, 1941
M-16b	11.52	May 27, 1940	16.31	Oct. 6, 1941
M-17	8.58	Aug. 21, 1939	14.67	Dec. 1, 1941
M-17a	6.26	Aug. 21, 1939	11.00	Dec. 1, 1941
M-17b	6.01	Aug. 21, 1939	10.84	Sept.15, 1941
M-18	12.00	Aug. 21, 1939	19.49	Sept.10, 1941
M-18a	11.32	Aug. 21, 1939	18.44	Sept.10, 1941
M-18b	10.58	Aug. 21, 1939	17.50	Sept.10, 1941
M-19	12.82	Aug. 21, 1939	18.85	Mar. 18, 1941
M-19a	13.81	Aug. 21, 1939	18.78	May 26, 1941
M-19b	12.47	Aug. 21, 1939	17.88	Mar. 24, 1941
M-20	11.74	May 27, 1940	21.95	Sept.15, 1941
M-20a	10.08	May 27, 1940	19.72	Sept.15, 1941
~~M-20b~~	~~9.29~~	~~May 27, 1940~~	~~18.47~~	~~Sept.15, 1941~~
M-21	10.32	Aug. 21, 1939	16.09	May 26, 1941
M-21a	9.30	Aug. 21, 1939	14.95	May 26, 1941
M-21b	8.88	Aug. 21, 1939	14.61	May 26, 1941
M-22	11.20	Aug. 21, 1939	18.06	June 3, 1941
M-22a	9.29	Aug. 21, 1939	16.16	June 3, 1941
M-22b	10.18	Aug. 21, 1939	17.07	June 3, 1941
M-23	9.85	Aug. 21, 1939	19.03	Dec. 23, 1940
M-23a	9.17	Aug. 21, 1939	16.20	Dec. 23, 1940
M-23b	8.60	Aug. 21, 1939	15.37	Dec. 23, 1940
M-24	10.71	Aug. 21, 1939	16.17	Jan. 13, 1941
M-24a	9.88	Aug. 21, 1939	15.31	Jan. 13, 1941
M-24b	12.17	Aug. 28, 1939	17.76	Jan. 13, 1941
M-25	7.54	Aug. 21, 1939	12.93	June 3, 1941
M-25a	6.11	Aug. 21, 1939	11.82	June 3, 1941
M-25b	7.69	Aug. 21, 1939	13.80	Aug. 25, 1941

Harvey County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 94 wells in Harvey County that are pumped or affected by pumping--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)[a]	Net rise (+) or net decline (-) for period of record (feet)[a]
506	3	5.16	+2.22	+0.92
507	3	8.80	+2.45	-1.40
821	3	4.04	-1.88	-3.81
839	3	6.16	+1.12	-2.24
872	3	6.45	-2.35	-6.40
873	3	6.69	-2.53	-6.66
874	3	16.80	-3.29	-8.62
878	3	14.41	-1.65	-4.18
879	3	5.63	-1.98	-5.09
883	3	5.52	-.87	-3.76
884	3	5.59	-.95	-3.83
885	3	6.83	-2.22	-5.03
886	3	6.24	-.42	-4.27
887	3	6.87	+.31	-4.86
894	3	6.71	-1.67	-4.32
895	3	8.70	-2.00	-5.41
899	3	.96	b -.07	-.42
1112	2	1.09	+.56	+.12
1192	1	.58	+.52	+.52
M-1	3	14.28	+10.77	-3.51
M-1a	3	11.50	+8.44	-5.21
M-1b	3	14.08	+8.14	-2.56
M-2	3	23.82	+7.37	-9.05
M-2a	3	23.06	+10.63	-3.01
M-2b	3	11.49	+7.21	-2.70
M-3	3	17.37	+4.41	-5.55
M-3a	3	17.79	+4.83	-1.37
M-3b	3	18.77	+4.58	-.85
M-4	3	18.61	+5.02	-4.73
M-4a	3	15.89	+5.22	-1.50
M-4b	3	14.43	+4.81	-3.03
M-5	3	20.13	+1.36	-4.51
M-5a	3	8.59	-1.75	-5.19
M-5b	3	8.21	-1.82	-5.17
M-6	3	7.88	-1.97	-3.08
M-6a	3	6.96	-2.46	-5.91
M-6b	3	6.99	-2.29	-5.70
M-7	3	7.43	+.49	-2.97
M-7a	3	7.20	+.49	-3.01
M-7b	3	7.08	+.50	-3.11
M-8	3	8.78	-3.07	-5.59
M-8a	3	7.38	-2.11	-5.43
M-8b	3	7.50	-2.56	-5.94
M-9	3	8.12	-3.07	-7.44
M-9a	3	7.66	-2.77	-6.77
M-9b	3	7.59	-2.71	-6.54
M-10	3	10.35	-1.96	-6.46
M-10a	3	8.97	-2.23	-7.08
M-10b	3	8.52	-2.39	-7.19
M-11	3	8.73	-2.49	-6.88
M-11a	3	8.25	-2.37	-5.94
M-11b	3	8.22	-2.47	-5.92
M-12	3	9.06	-.84	-5.66

a Calculated from first measurement not affected by pumping to last measurement not affected by pumping.

b Through June 2, 1941.

Harvey County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 94 wells in Harvey County that are pumped or affected by pumping--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)[a]	Net rise (+) or net decline (-) for period of record (feet)[a]
M-12a	3	8.92	-.89	-5.59
M-12b	3	8.93	-.82	-5.57
M-13	3	7.09	-1.49	-5.16
M-13a	3	7.06	-1.74	-5.45
M-13b	3	7.96	-2.14	-6.23
M-14	3	9.01	-.56	-4.86
M-14a	3	8.85	-.92	-7.14
M-14b	3	8.71	-1.40	-7.56
M-15	3	8.17	-1.96	-6.58
M-15a	3	7.93	-1.94	-5.76
M-15b	3	8.14	-1.92	-5.75
M-16	3	7.21	+.56	-4.80
M-16a	3	6.71	+.37	-4.49
M-16b	3	4.79	+.07	-3.32
M-17	3	6.09	-.44	-3.32
M-17a	3	4.74	-.28	-1.87
M-17b	3	4.83	-.41	-2.49
M-18	3	7.49	+.23	-3.57
M-18a	3	7.12	+.20	-3.33
M-18b	3	6.92	+.40	-2.95
M-19	3	6.03	+.25	-3.16
M-19a	3	4.97	+.36	-2.03
M-19b	3	5.41	+.31	-2.29
M-20	3	10.21	-2.88	-7.00
M-20a	3	9.64	-2.97	-6.94
M-20b	3	9.18	-2.83	-6.74
M-21	3	5.77	+.61	-2.05
M-21a	3	5.65	+.51	-2.01
M-21b	3	5.73	+.43	-1.98
M-22	3	6.86	+.93	-1.67
M-22a	3	6.87	+.95	-1.73
M-22b	3	6.89	+.96	-1.85
M-23	3	9.18	+1.42	-1.23
M-23a	3	7.03	+1.23	-1.26
M-23b	3	6.77	+1.29	-1.26
M-24	3	5.46	+1.50	-1.46
M-24a	3	5.43	+1.53	-1.35
M-24c	3	5.59	+1.42	-1.54
M-25	3	5.39	+1.52	-.74
M-25a	3	5.71	+1.37	-.95
M-25b	3	6.11	+1.34	-.98

Well descriptions and water-level measurements

72. Anna Hertzler. SW¼NE¼SE¼ sec. 16, T. 22 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	24.27	Apr 1	24.13	July 8	23.51	Oct. 13	23.54
Feb. 4	24.23	May 2	24.11	July 23	23.71	Dec. 17	22.46
Mar. 4	24.34	June 4	24.34				

136. Ada M. Day. NW cor. sec. 19, T. 23 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 2	13.13	Apr. 1	13.21	July 8	12.25	Oct. 13	12.39
Feb. 4	13.21	May 1	13.21	Aug. 4	12.08	Nov. 10	12.37
Mar. 4	13.29	June 4	13.21	Sept. 3	12.19	Dec. 2	12.34

a Calculated from first measurement not affected by pumping to last measurement not affected by pumping.

Harvey County--Continued

294. Owner, J. B. Schmidt; lessee, Hollow Oil Co., SE¼NW¼ sec. 17, T. 22 S., R. 3 W.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Dec.
1	42.92	42.91	42.81	42.40	42.45	42.49	.....	.....	.....	.....
2	42.96	42.89	42.77	42.40	42.44	42.47	.....	.....	.....	.....
3	42.97	42.88	42.73	42.37	42.42	42.45	.....	.....	.....	.....
4	42.97	42.88	42.77	42.38	42.42	42.44	.....	.....	.....	.....
5	42.98	42.85	42.78	42.40	42.40	42.44	.....	.....	.....	.....
6	42.98	42.81	42.76	42.40	42.39	42.44	.....	.....	.....	.....
7	42.98	42.80	42.75	42.39	42.38	42.42	.....	.....	.....	.....
8	42.98	42.79	.....	42.41	42.39	42.37	40.89	.....	.....	.....
9	43.00	42.79	.....	42.42	42.42	42.23	.....	.....	.....	.....
10	43.00	42.79	.....	42.43	42.44	42.00	.....	.....	.....	.....
11	43.00	42.78	.....	42.43	42.44	41.82	.....	.....	.....	.....
12	42.98	42.77	.....	42.44	42.44	41.69	.....	.....	.....	.....
13	42.95	42.74	.....	42.44	42.44	41.61	.....	.....	41.52	.....
14	42.92	42.76	.....	42.44	42.41	41.56	.....	.....	.....	.....
15	42.90	42.78	.....	42.44	42.40	41.53	.....	.....	.....	.....
16	42.86	42.78	.....	42.44	42.41	41.51	.....	.....	.....	.....
17	42.88	42.78	42.56	42.43	42.43	41.48	.....	.....	.....	39.86
18	42.93	42.79	42.56	42.41	42.44	41.47	.....	41.73	.....	.....
19	42.94	42.82	42.54	42.40	42.45	41.46	.....	.....	.....	.....
20	42.94	42.82	42.51	42.43	42.47	a41.45	.....	.....	.....	.....
21	42.94	42.83	42.50	42.46	42.49	.....	.....	.....	.....	.....
22	42.91	42.83	42.50	42.47	42.51	.....	.....	.....	.....	.....
23	42.92	42.82	42.49	42.48	42.53	.....	41.04	.....	.....	.....
24	42.92	42.81	42.49	42.49	42.54	b41.45	.....	.....	.....	.....
25	42.92	42.79	42.49	42.50	42.53	.....	.....	.....	.....	.....
26	42.92	42.79	42.48	42.50	42.52	.....	.....	.....	.....	.....
27	42.95	42.80	42.47	42.50	42.50	.....	.....	.....	.....	.....
28	42.96	42.81	42.47	42.49	42.49	.....	.....	.....	.....	.....
29	42.96	.....	42.47	42.48	42.49	.....	.....	.....	.....	.....
30	42.95	.....	42.45	42.47	42.50	.....	.....	.....	.....	.....
31	42.92	.....	42.40	.....	42.50	.....	.....	.....	.....	.....

325. A. L. Gouldner. SW cor. SE¼ sec. 19, T. 23 S., R. 3 W. New measuring point, beginning June 4, 1941, top of 8-inch casing southeast side, 1.50 feet below old measuring point, 2.18 feet below bench mark, 1.2 feet above land surface, 1,459.27 feet above sea level. This is identical with the measuring point abandoned June 4, 1939.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.16	Apr. 1	14.08	July 8	12.03	Oct. 13	12.29
Feb. 4	14.16	May 1	14.10	Aug. 4	12.19	Nov. 10	12.11
Mar. 4	14.19	June 4	c 12.88	Sept. 3	12.19	Dec. 2	12.12

506. Owner of well, City of Wichita; owner of property, W.G. Backhaus. NW¼NE¼ sec. 28, T. 23 S., R. 2 W.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.99	18.81	18.61	18.32	18.41	18.80	17.57	19.00	19.16	18.79	15.23	17.22
2	19.00	18.68	18.55	18.28	18.42	18.70	17.54	19.05	19.03	18.81	15.23	17.24
3	18.99	18.62	18.60	18.25	18.47	18.73	15.72	19.04	18.81	18.85	15.28	17.22
4	19.00	18.52	18.61	18.28	18.48	18.73	15.04	19.09	18.43	18.84	15.27	17.16
5	19.00	18.47	18.59	18.27	18.50	18.72	15.26	19.15	17.98	18.88	15.35	17.26
6	19.00	18.53	18.55	18.21	18.57	18.68	15.26	19.13	17.83	18.88	15.45	17.26
7	19.00	18.56	18.54	18.21	18.63	18.68	15.87	19.14	17.83	18.85	15.60	17.20
8	19.02	18.61	18.54	18.21	18.69	18.65	16.19	19.17	17.33	18.40	15.71	17.20
9	19.04	18.64	18.49	18.21	18.73	17.88	16.46	19.35	17.01	17.95	15.86	17.18
10	19.02	18.67	18.48	18.20	18.76	16.26	16.66	19.43	17.34	17.87	15.99	17.21

a Automatic recorder discontinued June 20, 1941.
b Wetted-tape measurements beginning this date.
c New measuring point.

Harvey County--Continued

506. Owner of well, City of Wichita.--Continued.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	19.00	18.67	18.42	18.22	18.77	15.27	16.80	19.46	17.56	17.87	16.07	17.20
12	18.99	18.66	18.29	18.24	18.77	15.16	16.82	19.01	17.76	17.90	16.12	17.16
13	18.96	18.75	18.16	18.24	18.76	15.45	16.84	18.88	17.90	18.03	16.30	17.19
14	18.91	18.75	18.07	18.28	18.74	15.73	16.98	18.81	18.02	18.10	16.43	17.18
15	18.86	18.77	.....	18.28	18.72	15.97	17.21	18.78	18.12	18.08	16.52	17.17
16	18.83	18.77	.....	18.26	18.72	16.19	17.42	.....	18.21	17.82	16.61	17.16
17	18.83	18.78	18.25	18.25	18.72	16.42	17.59	.....	18.27	17.95	16.70	17.19
18	18.83	18.79	18.25	18.27	18.73	16.65	17.73	.....	18.30	18.06	16.79	17.25
19	18.82	18.78	18.26	18.30	18.78	16.83	17.84	.....	18.33	18.06	16.95	17.32
20	18.79	18.75	18.30	18.33	18.82	17.01	18.01	.....	18.34	17.94	17.03	17.32
21	18.79	18.73	18.31	18.33	18.82	.....	18.17	.....	18.38	17.69	17.03	17.32
22	18.86	18.70	18.31	18.32	18.79	.....	18.30	18.73	18.40	16.50	17.09	17.32
23	18.90	18.68	18.30	18.34	18.75	.....	18.38	18.75	18.40	14.96	17.18	17.16
24	18.92	18.64	18.31	18.35	18.74	17.51	18.44	18.79	18.42	14.00	17.21	16.74
25	18.96	18.64	18.32	18.36	18.73	17.59	18.54	18.84	18.72	13.52	17.20	16.66
26	19.01	18.63	18.30	18.36	18.62	17.64	18.71	18.87	18.82	14.18	17.19	16.79
27	19.04	18.63	18.32	18.37	18.64	17.68	18.71	18.88	18.98	14.44	17.18	16.80
28	19.04	18.64	18.34	18.38	18.71	17.65	18.69	18.91	18.96	14.65	17.17	16.78
29	18.99	.....	18.34	18.39	18.80	17.35	18.82	18.95	18.84	14.91	17.16	16.78
30	18.92	.....	18.31	18.39	18.82	17.41	18.85	19.12	18.79	15.13	17.19	16.76
31	18.88	.....	18.34	.....	18.82	.....	18.85	19.11	.....	15.22	.....	16.77

507. Owner of well, City of Wichita; owner of property, W. G. Backhaus. NW¼NE¼ sec. 28, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	14.08	Apr. 4	11.76	July 1	13.35	Oct. 3	15.86
10	14.27	11	11.66	5	11.72	10	15.23
17	12.99	18	11.90	11	13.64	17	15.40
24	14.03	21	12.05	18	12.92	24	9.25
31	13.41	25	12.37	25	14.23	31	10.67
Feb. 7	13.40	May 2	12.97	Aug. 1	15.17	Nov. 7	11.57
14	13.98	9	13.54	8	14.47	14	12.56
21	13.49	16	13.92	22	13.59	21	13.75
28	13.06	23	13.51	29	15.12	28	12.50
Mar. 7	12.84	29	14.02	Sept. 5	13.40	Dec. 5	11.58
17	13.07	June 6	13.39	12	13.67	12	10.73
21	13.18	13	11.62	18	14.77	19	11.45
28	12.63	24	13.81	26	13.80	26	11.63

701. Arkansas Valley Interurban Railway Co., NE cor. NW¼ sec. 3, T. 23 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	38.25	Apr. 1	38.23	July 8	38.11	Oct. 13	38.00
Feb. 4	38.18	May 1	38.17	Aug. 4	38.04	Nov. 10	37.95
Mar. 4	38.21	June 4	38.12	Sept. 3	37.92	Dec. 2	37.85

817. City of Wichita. NW cor. sec. 1, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 3	17.29	Apr. 4	16.98	July 1	16.64	Oct. 3	17.00
10	17.24	11	16.88	5	15.11	10	16.10
17	17.25	18	16.86	11	15.78	17	15.94
24	17.25	21	17.02	18	16.24	24	13.84
31	17.43	25	17.06	25	16.85	31	13.95
Feb. 7	17.03	May 2	16.94	Aug. 1	16.96	Nov. 7	14.00
14	17.11	9	16.96	8	17.34	14	14.49
21	17.10	16	17.04	22	17.61	21	14.81
28	17.07	23	17.11	29	17.77	28	15.00
Mar. 7	17.03	29	17.23	Sept. 5	17.19	Dec. 5	15.25
17	16.78	June 6	17.11	12	16.85	12	15.33
21	16.80	13	15.21	18	16.94	19	15.61
28	16.89	23	16.30	26	17.12	26	14.99

Harvey County--Continued

821. City of Wichita. NW cor. sec. 6, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	15.19	Apr. 28	15.90	Aug. 1	16.08	Oct. 17	16.85
28	15.25	May 12	15.98	8	16.21	24	16.87
Feb. 10	15.39	19	16.04	22	16.45	Nov. 7	16.91
17	15.43	26	16.09	29	16.53	14	16.89
25	15.45	June 2	16.16	Sept. 5	16.58	21	16.96
Mar. 3	15.50	16	16.24	12	16.61	28	17.00
18	15.63	July 1	16.39	18	16.62	Dec. 5	17.00
24	15.68	5	15.59	26	16.68	12	17.00
31	15.74	11	15.41	Oct. 3	16.71	19	17.01
Apr. 17	15.84	18	15.61	10	16.78	26	17.07
21	15.87	25	15.83				

824. City of Wichita. SE cor. sec. 22, T. 24 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	20.06	Apr. 1	18.70	July 8	14.39	Oct. 13	15.92
Feb. 3	19.71	May 1	18.65	Aug. 4	16.65	Nov. 10	14.54
Mar. 4	19.28	June 4	18.29	Sept. 3	17.66	Dec. 2	14.92

831. City of Wichita. NE cor. sec. 19, T. 24 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	21.43	Apr. 17	21.17	July 8	18.43	Oct. 13	18.27
Feb. 7	21.14	May 1	21.24	Aug. 4	19.94	Nov. 10	17.35
Mar. 4	21.36	June 4	21.38	Sept. 3	19.71	Dec. 2	18.47
Apr. 1	21.07						

832. City of Wichita. NE cor. sec. 19, T. 24 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	20.72	Apr. 17	20.46	July 8	17.76	Oct. 13	17.74
Feb. 7	20.37	May 1	20.55	Aug. 4	19.50	Nov. 10	17.15
Mar. 4	20.63	June 4	20.65	Sept. 3	18.62	Dec. 2	18.27
Apr. 1	20.40						

833. City of Wichita. SW cor. sec. 19, T. 24 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	11.59	Apr. 17	11.10	July 8	8.29	Oct. 13	9.05
Feb. 4	11.00	May 1	11.32	Aug. 4	10.16	Nov. 10	8.41
Mar. 4	11.39	June 4	11.63	Sept. 3	10.95	Dec. 2	9.42
Apr. 1	10.89						

839. City of Wichita. NE cor. sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	16.35	Mar. 24	15.86	June 16	16.00	Sept.15	16.57
20	16.59	31	15.74	July 7	14.70	Oct. 6	16.78
27	16.49	Apr. 14	15.93	14	14.50	27	15.41
Feb. 10	16.02	28	16.39	21	14.98	Nov. 7	14.90
17	15.90	May 12	16.29	28	15.45	11	14.88
25	15.95	19	16.33	Aug. 25	16.53	Dec. 5	15.69
Mar. 3	16.29	26	16.43	Sept. 8	16.56	12	15.23
18	15.96	June 2	16.59				

852. City of Wichita. NW cor. sec. 29, T. 24 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 3	17.61	Apr. 17	17.23	July 8	14.50	Oct. 13	14.49
Feb. 7	17.14	May 1	17.35	Aug. 4	16.04	Nov. 10	13.78
Mar. 4	17.42	June 4	17.53	Sept. 3	16.31	Dec. 2	14.75
Apr. 1	17.08						

Harvey County--Continued

853. City of Wichita. NW cor. sec. 13, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	11.46	Apr. 4	11.11	July 1	10.44	Oct. 3	10.82
10	11.48	11	11.18	5	8.16	10	9.39
17	11.39	17	11.11	11	8.98	17	9.29
24	11.47	18	11.11	18	9.48	24	8.48
31	11.43	25	11.31	25	9.88	31	8.24
Feb. 7	11.04	May 2	11.33	Aug. 1	10.15	Nov. 7	8.15
14	11.17	9	11.36	8	10.36	14	8.61
21	11.27	16	11.41	22	10.60	21	9.00
28	11.29	23	11.50	29	10.72	28	9.13
Mar. 7	11.31	29	11.51	Sept. 5	10.63	Dec. 5	9.33
17	10.90	June 6	11.50	12	10.60	12	9.46
21	10.93	13	9.69	18	10.78	19	9.67
28	11.06	23	10.32	26	10.94	26	9.01

854. City of Wichita. SW cor. sec. 23, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	15.14	Apr. 4	14.68	July 5	11.41	Oct. 3	13.89
10	15.12	11	14.65	11	12.33	10	13.52
17	15.17	18	14.55	18	12.84	17	13.31
24	15.14	25	14.71	25	13.87	24	11.96
31	15.07	May 2	14.65	Aug. 1	13.54	31	11.63
Feb. 7	14.83	9	14.68	5	13.54	Nov. 7	11.65
14	14.95	16	14.73	8	13.80	14	11.94
21	14.91	23	14.80	22	13.93	21	12.27
28	14.96	29	14.86	29	14.08	28	12.06
Mar. 7	14.92	June 6	14.67	Sept. 5	13.51	Dec. 5	12.61
17	14.60	13	12.01	12	13.67	12	12.53
21	14.60	24	13.14	18	13.84	19	12.76
28	14.68	July 1	13.43	26	14.01	26	12.13

872. Owner of well, City of Wichita; owner of property, D. C. Buller. SE cor. sec. 31, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	22.25	Mar. 18	a 25.07	June 2	a 25.67	Sept. 8	24.21
20	21.96	24	a 23.94	16	a 25.91	15	24.06
27	22.05	31	23.47	July 7	a 24.74	Oct. 2	24.20
Feb. 3	a 25.34	Apr. 21	22.95	14	a 24.18	6	24.06
10	22.37	28	22.90	21	a 26.71	24	24.09
17	22.35	May 12	23.15	28	24.40	Nov. 11	a 26.46
25	22.23	19	23.59	Aug. 25	a 24.95	Dec. 4	a 24.75
Mar. 3	a 23.00	26	23.64	Sept. 2	24.10	15	24.60

873. Owner of well, City of Wichita; owner of property, D. C. Buller. SE cor. sec. 31, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	22.27	Mar. 18	a 25.23	June 2	a 25.76	Sept.10	24.31
20	21.96	24	a 24.06	16	a 26.10	15	24.14
27	22.03	31	23.55	July 7	a 24.88	Oct. 2	24.30
Feb. 3	a 25.45	Apr. 21	23.01	14	a 24.31	6	24.17
10	22.39	28	22.97	21	a 26.96	24	24.21
17	22.38	May 12	23.21	28	24.55	Nov. 11	a 26.88
25	22.25	19	23.66	Aug. 25	a 25.04	Dec. 1	a 24.87
Mar. 3	a 23.04	26	23.72	Sept. 2	24.21	15	24.80

Harvey County--Continued

874. Owner of well, City of Wichita; owner of property, D. C. Buller. SE cor. sec. 31, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	27.01	Mar. 18	a 35.26	June 2	a 35.35	Sept.10	30.12
20	26.24	24	a 33.64	16	a 35.58	15	30.37
27	27.31	31	29.99	July 7	a 35.91	Oct. 2	30.41
Feb. 3	a 37.47	Apr. 21	27.91	14	a 30.63	6	30.35
10	27.54	28	28.54	21	a 39.98	24	28.21
17	28.48	May 12	29.24	28	32.37	Nov. 11	a 35.18
25	27.27	19	30.86	Aug. 25	a 34.36	Dec. 1	a 32.12
Mar. 3	a 29.84	26	31.37	Sept. 2	28.97	15	30.30

875. Owner of well, City of Wichita; owner of property, A. B. Havely. SE cor. sec. 17, T. 23 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	7.32	Apr. 4	5.92	July 1	4.20	Oct. 3	6.36
10	7.21	11	5.73	5	2.29	10	6.51
17	7.31	18	5.61	11	3.41	17	6.29
24	7.18	21	5.60	18	3.83	24	5.99
31	6.91	25	5.85	25	4.44	31	5.34
Feb. 7	6.59	May 2	5.64	Aug. 1	4.71	Nov. 7	5.29
14	6.78	9	6.05	8	5.23	14	5.34
21	6.63	16	6.93	22	5.57	21	5.38
28	6.64	23	6.14	29	5.81	28	5.32
Mar. 7	6.56	29	6.04	Sept. 5	6.14	Dec. 5	5.62
17	6.00	June 6	5.91	12	6.12	12	5.34
21	5.82	13	3.55	18	6.26	19	5.56
28	5.91	24	4.24	26	6.41	26	5.70

876. Owner of well, City of Wichita; owner of property, A. B. Havely. SE cor. sec. 17, T. 23 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	29.21	Apr. 4	29.07	July 1	28.66	Oct. 3	28.90
10	29.25	11	29.14	5	28.56	10	28.80
17	29.23	18	28.95	11	28.50	17	28.80
24	29.30	21	28.94	18	28.91	24	28.74
31	29.31	25	28.99	25	28.58	31	28.60
Feb. 7	29.29	May 2	29.02	Aug. 1	28.59	Nov. 7	28.45
14	29.27	9	29.02	8	28.63	14	28.38
21	29.25	16	29.03	22	28.68	21	28.32
28	29.21	23	29.07	29	28.71	28	28.30
Mar. 7	29.19	29	29.08	Sept. 5	28.72	Dec. 5	28.27
17	29.20	June 6	29.07	12	28.77	12	28.28
21	29.19	13	28.85	18	28.77	19	28.29
28	29.14	24	28.76	26	28.81	26	28.20

877. Owner of well, City of Wichita; owner of property, A. B. Havely. SE cor. sec. 17, T. 23 S., R. 3 W.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.51	17.60	17.55	17.43	17.46	17.46	16.84	16.49	16.64	16.76	16.59	16.47
2	17.52	17.59	17.50	17.40	17.46	17.45	16.75	16.50	16.59	16.75	16.59	16.48
3	17.52	17.60	17.58	17.41	17.46	17.47	16.67	16.51	16.63	16.78	16.58	16.48
4	17.51	17.60	17.60	17.44	17.46	17.48	16.63	16.52	16.65	16.77	16.58	16.45
5	17.52	17.59	17.59	17.44	17.44	17.48	16.57	16.53	16.68	16.79	16.56	16.55
6	17.52	17.59	17.53	17.41	17.45	17.39	16.54	16.53	16.67	16.79	16.56	16.55
7	17.52	17.59	17.57	17.41	17.47	17.42	16.51	16.54	16.66	16.82	16.54	16.52
8	17.56	17.57	17.57	17.43	17.48	17.42	16.49	16.55	16.68	16.82	16.54	16.52
9	17.57	17.57	17.56	17.43	17.51	17.29	16.47	16.55	16.72	16.85	16.53	16.51
10	17.55	17.57	17.58	17.43	17.52	17.24	16.45	16.55	16.73	16.87	16.53	16.53
11	17.53	17.57	17.59	17.43	17.51	17.19	16.46	16.55	16.73	16.86	16.54	16.53

a Nearby well pumping.

Harvey County--Continued

877. Owner of well, City of Wichita.--Continued.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
12	17.53	17.54	17.59	17.43	17.50	17.15	16.46	16.54	16.72	16.84	16.52	16.50
13	17.52	17.58	17.58	17.42	17.47	17.11	16.46	16.54	16.69	16.83	16.50	16.53
14	17.51	17.58	17.57	17.42	17.45	17.08	16.45	16.57	16.68	16.84	16.50	16.52
15	17.50	17.58	.....	17.42	17.47	17.06	16.44	16.59	16.69	16.86	16.49	16.52
16	17.53	17.56	.....	17.40	17.48	17.04	16.42	.....	16.71	16.85	16.47	16.51
17	17.61	17.56	17.54	17.40	17.47	17.04	16.42	.....	16.72	16.82	16.46	16.51
18	17.63	17.57	17.52	17.39	17.46	17.02	16.41	.....	16.71	16.83	16.46	16.52
19	17.62	17.58	17.48	17.41	17.45	17.00	16.42	.....	16.70	16.83	16.50	16.53
20	17.61	17.56	17.47	17.45	17.47	16.99	16.42	.....	16.69	16.82	16.50	16.54
21	17.60	17.56	17.48	17.46	17.48	.....	16.41	.....	16.72	16.82	16.50	16.51
22	17.62	17.56	17.47	17.45	17.48	.....	16.41	16.61	16.72	16.81	16.47	16.48
23	17.62	17.56	17.47	17.46	17.47	.....	16.42	16.60	16.72	16.80	16.49	16.48
24	17.62	17.54	17.47	17.46	17.47	16.93	16.44	16.60	16.72	16.79	16.50	16.49
25	17.60	17.54	17.47	17.48	17.46	16.93	16.45	16.59	16.75	16.78	16.49	16.49
26	17.64	17.56	17.46	17.48	17.45	16.92	16.45	16.61	16.76	16.68	16.48	16.56
27	17.65	17.57	17.47	17.47	17.45	16.91	16.45	16.62	16.76	16.73	16.48	16.57
28	17.65	17.57	17.48	17.47	17.47	16.83	16.46	16.62	16.81	16.74	16.48	16.58
29	17.63	.....	17.47	17.47	17.49	16.83	16.47	16.63	16.80	16.70	16.47	16.58
30	17.59	.....	17.42	17.45	17.49	16.83	16.48	16.63	16.75	16.66	16.47	16.55
31	17.60	.....	17.44	.....	17.48	.....	16.48	16.64	.....	16.65	.....	16.55

878. Owner of well, City of Wichita; owner of property, C. Cadwell. SE cor. sec. 1, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	19.31	May 12	19.92	Aug. 1	20.27	Oct. 17	20.80
28	19.35	19	19.96	8	20.35	24	20.80
Feb. 10	19.42	26	20.01	22	20.47	Nov. 7	20.79
17	19.45	June 2	20.05	29	20.51	14	20.81
Mar. 3	19.54	16	20.07	Sept. 5	20.59	21	20.83
18	19.60	July 1	20.19	12	20.63	28	20.85
24	19.63	5	19.98	18	20.78	Dec. 5	20.89
31	19.70	11	20.01	26	20.73	15	20.90
Apr. 17	19.77	18	20.15	Oct. 3	20.79	19	20.96
28	19.83	25	20.22	10	20.78	26	20.96

879. Owner of well, City of Wichita; owner of property, C. Cadwell. SE cor. sec. 1, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	21.49	May 12	22.48	Aug. 1	23.24	Oct. 17	23.57
28	21.89	19	22.64	8	23.40	24	23.60
Feb. 10	21.88	26	22.57	22	23.35	Nov. 7	23.54
17	21.93	June 2	22.62	29	23.15	14	23.25
Mar. 3	22.14	16	22.81	Sept. 5	23.65	21	23.12
18	21.98	July 1	22.98	12	23.32	28	23.28
24	22.17	5	22.65	18	23.23	Dec. 5	23.53
31	22.38	11	23.05	26	23.24	15	23.64
Apr. 17	22.14	18	23.06	Oct. 3	23.18	19	23.44
28	22.17	25	23.03	10	23.54	26	23.47

Harvey County--Continued

880. Owner of well, City of Wichita; owner of property, Peter Miller. SE cor. sec. 11, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	7.51	May 12	7.12	Aug. 1	6.57	Oct. 17	7.15
28	7.49	19	7.23	8	6.83	24	6.84
Feb. 10	7.15	26	7.35	22	7.11	Nov. 7	6.00
17	7.20	June 2	7.40	29	7.21	14	6.20
Mar. 3	7.22	16	6.12	Sept. 5	7.35	21	6.27
18	6.83	July 1	6.37	12	7.45	28	6.34
24	6.90	5	4.06	18	7.60	Dec. 5	6.43
31	6.95	11	5.36	26	7.63	15	6.47
Apr. 16	7.02	18	5.89	Oct. 3	7.57	19	6.54
28	7.10	25	6.30	10	7.27	26	6.30

881. Owner of well, City of Wichita; owner of property, Peter Miller. SE cor. sec. 11, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	7.48	May 12	7.18	Aug. 1	6.70	Oct. 17	7.23
28	7.50	19	7.32	8	6.94	24	6.90
Feb. 10	7.19	26	7.42	22	7.19	Nov. 7	6.23
17	7.25	June 2	7.48	29	7.30	14	6.38
Mar. 3	7.24	16	6.39	Sept. 5	7.44	21	6.45
18	6.90	July 1	6.57	12	7.51	28	6.49
24	6.98	5	4.54	18	7.53	Dec. 5	6.57
31	7.01	11	5.58	26	7.70	15	6.61
Apr. 16	7.06	18	6.05	Oct. 3	7.62	19	6.68
28	7.11	25	6.45	10	7.32	26	6.47

883. Owner of well, City of Wichita; owner of property, Maggie Holle. NW cor. sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	18.72	Mar. 24	18.79	June 3	18.82	Sept. 8	18.05
20	18.34	31	a 19.78	16	18.48	15	18.55
28	18.21	Apr. 15	18.71	July 7	16.92	Oct. 6	a 20.45
Feb. 10	18.47	28	18.37	14	16.94	24	18.35
17	18.22	May 12	a 21.14	21	a 17.94	Nov. 11	17.64
25	18.50	19	18.96	28	a 18.70	Dec. 1	18.34
Mar. 3	a 19.86	26	18.92	Aug. 25	18.09	12	a 19.59
18	18.78						

884. Owner of well, City of Wichita; owner of property, Maggie Holle. NW cor. sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	18.64	Mar. 24	18.72	June 3	18.80	Sept. 8	17.97
20	18.27	31	a 19.76	16	18.51	15	18.47
28	18.12	Apr. 15	18.64	July 7	16.84	Oct. 6	a 20.45
Feb. 10	18.39	28	18.28	14	17.90	27	18.28
17	18.13	May 12	a 21.12	21	a 17.73	Nov. 11	17.56
25	18.42	19	18.87	28	a 18.68	Dec. 1	18.26
Mar. 3	a 19.77	26	18.85	Aug. 25	18.02	12	a 19.59
18	18.70						

a Nearby well pumping.

Harvey County--Continued

885. Owner of well, City of Wichita; owner of property, Maggie Holle. NW cor. sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	18.47	Mar. 24	18.69	June 3	18.64	Sept. 8	17.94
20	18.12	31	a 20.76	16	19.57	15	18.25
28	17.98	Apr. 15	18.42	July 7	16.80	Oct. 6	a 21.36
Feb. 10	18.18	28	18.14	14	17.74	27	18.07
17	17.97	May 12	a 21.22	21	a 18.52	Nov. 11	17.36
25	18.40	19	18.67	28	a 18.79	Dec. 1	18.13
Mar. 3	a 20.77	26	18.82	Aug. 25	17.97	12	a 20.69
18	18.66						

886. Owner of well, City of Wichita; owner of property, F. H. Haiber. NE cor. NW¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	8.94	Mar. 31	a 9.17	June 16	8.17	Sept.15	a 11.93
28	8.08	Apr. 17	a 9.18	July 7	7.68	Oct. 8	a 10.75
Feb. 10	9.22	28	a 9.46	14	a 8.21	17	8.10
17	8.49	May 12	8.43	21	8.00	Nov. 11	a 8.30
Mar. 3	8.13	19	a 10.57	28	a 10.09	21	a 9.56
18	a 9.15	26	8.79	Aug. 26	a 9.69	Dec. 1	8.39
24	a 8.63	June 2	a 9.54	Sept.10	a 12.00	15	8.52

887. Owner of well, City of Wichita; owner of property, F. H. Haiber. NE cor. NW¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	9.45	Mar. 31	a 9.91	June 16	8.80	Sept.15	a 13.20
28	8.44	Apr. 17	a 9.92	July 7	8.56	Oct. 8	a 11.62
Feb. 10	10.08	28	a 10.04	14	a 8.91	17	8.32
17	9.22	May 12	8.75	21	8.85	Nov. 11	a 8.74
Mar. 3	8.63	19	a 11.50	28	a 11.15	21	a 10.25
18	a 10.00	26	9.33	Aug. 26	a 10.49	Dec. 5	8.98
24	a 9.24	June 2	a 10.19	Sept.10	a 13.30	15	a 9.14

888. Owner of well, City of Wichita; owner of property, C. K. Ellis. NW cor. sec. 17, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 3	7.76	Apr. 4	4.23	July 1	3.32	Oct. 3	7.89
10	7.70	11	3.88	5	.49	10	8.06
17	7.71	18	3.10	11	1.53	17	7.93
24	7.50	25	3.66	18	2.88	24	7.38
31	7.40	May 2	3.93	25	4.06	31	6.53
Feb. 7	6.13	9	3.27	Aug. 1	4.82	Nov. 7	6.14
14	6.29	16	4.13	8	5.53	14	6.09
21	6.25	23	4.54	22	6.50	21	6.14
28	6.23	29	5.16	29	6.84	28	6.14
Mar. 7	5.91	June 6	4.71	Sept. 5	7.28	Dec. 5	6.25
17	3.66	11	.50	12	7.42	12	6.01
21	3.83	13	.70	18	7.57	19	6.09
28	4.11	24	2.92	26	7.95	26	4.87

889. Owner of well, City of Wichita; owner of property, C. K. Ellis. NW cor. sec. 17, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 3	8.44	Feb. 21	7.86	Apr. 11	6.72	May 29	8.14
10	8.63	28	7.84	18	6.72	June 6	8.00
17	8.74	Mar. 7	8.19	25	7.46	11	6.61
24	8.57	17	7.49	May 2	7.78	13	6.34
31	8.56	21	7.27	9	7.77	24	6.38
Feb. 7	8.17	28	7.29	16	7.62	July 1	6.45
14	7.88	Apr. 4	7.02	23	7.74	5	5.54

a Nearby well pumping.

Harvey County--Continued

889.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 11	5.82	Aug. 29	7.78	Oct. 10	8.40	Nov. 21	6.33
18	5.65	Sept. 5	7.83	17	8.00	28	6.44
25	6.93	12	7.41	24	6.28	Dec. 5	6.22
Aug. 1	7.43	18	7.53	31	5.65	12	5.88
8	7.59	26	7.15	Nov. 7	5.89	19	6.10
22	7.39	Oct. 3	8.58	14	6.00	26	6.10

890. Owner of well, City of Wichita; owner of property, J. F. Jorgenson. NE cor. SE¼SE¼ sec. 21, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	7.04	Apr. 16	6.35	Aug. 4	5.41	Oct. 21	5.51
Feb. 4	6.71	May 1	6.38	Sept. 3	5.65	Nov. 10	4.82
Mar. 4	6.68	June 4	6.54	Oct. 13	5.64	Dec. 2	4.94
Apr. 1	6.46	July 8	5.03				

891. Owner of well, City of Wichita; owner of property, Arthur McMurry. SE cor. sec. 31, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	3.94	Apr. 1	3.49	July 8	2.17	Oct. 13	3.26
Feb. 4	3.40	May 1	3.66	Aug. 4	3.50	Nov. 10	2.58
Mar. 4	3.66	June 4	4.97	Sept. 3	4.92	Dec. 2	2.58

892. Owner of well, City of Wichita; owner of property, Arthur McMurry. SE cor. sec. 31, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	5.03	Apr. 1	4.46	July 8	2.88	Oct. 13	4.19
Feb. 4	4.40	May 1	4.62	Aug. 4	4.41	Nov. 10	3.25
Mar. 4	4.63	June 4	4.64	Sept. 3	4.48	Dec. 2	3.45

893. Owner of well, City of Wichita; owner of property, Arthur McMurry. SE cor. sec. 31, T. 24 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	5.05	Apr. 1	4.34	July 8	2.51	Oct. 13	4.50
Feb. 4	4.74	May 1	4.35	Aug. 4	3.85	Nov. 10	3.12
Mar. 4	4.58	June 4	4.12	Sept. 3	4.00	Dec. 2	3.26

894. Owner of well, City of Wichita; owner of property, H. A. Lawrence. NE cor. sec. 18, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	16.95	Mar. 31	17.48	June 16	18.00	Sept. 15	19.20
28	17.60	Apr. 17	17.94	July 7	17.68	Oct. 8	18.76
Feb. 10	17.68	28	17.58	14	18.17	17	18.37
17	17.62	May 12	18.22	21	17.61	Nov. 11	18.30
Mar. 3	17.59	19	18.26	28	18.29	21	18.14
18	16.19	26	18.39	Aug. 26	18.69	Dec. 1	18.09
24	17.33	June 2	18.19	Sept. 10	19.37	15	18.62

895. Owner of well, City of Wichita; owner of property, H. A. Lawrence. NE cor. sec. 18, T. 24 S., R 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	17.31	Apr. 17	19.79	July 7	19.07	Oct. 8	19.39
28	18.49	28	17.98	14	19.70	17	18.70
Feb. 10	18.94	May 12	19.60	21	17.95	Nov. 11	18.80
17	18.27	19	19.21	28	20.23	21	18.51
Mar. 3	18.15	26	19.77	Aug. 26	19.65	Dec. 1	19.14
18	16.58	June 2	18.83	Sept. 10	21.05	15	19.31
24	17.88	16	18.71	15	21.44		
31	18.23						

Harvey County--Continued

899. L. U. Becker. SE¼SE¼ sec. 30, T. 23 S., R. 2 W. Well filling with sand; observations discontinued in June 1941.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	15.66	Feb. 17	15.63	Mar. 24	15.64	May 12	15.61
20	15.67	25	15.68	31	15.62	19	15.68
28	15.69	Mar. 3	15.68	Apr. 21	15.62	26	15.67
Feb. 10	15.65	18	15.65	28	15.62	June 2	15.73

1112. Owner, M. H. Miller; tenant, A. C. Unruh. NW cor. NE¼ sec. 31, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	19.64	Mar. 24	19.58	June 2	19.65	Sept.10	19.28
20	19.65	31	19.57	16	19.34	15	19.33
28	19.65	Apr. 21	19.52	July 7	18.65	Oct. 8	19.35
Feb. 10	19.64	28	19.60	14	18.62	24	19.35
17	19.63	May 12	19.62	21	18.74	Nov. 11	19.13
25	19.64	19	19.56	28	18.90	Dec. 1	19.09
Mar. 3	19.25	26	19.63	Aug. 26	19.16	15	19.08
18	19.59						

1174. City of Wichita. SW cor. sec. 32, T. 24 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 13	10.21	Mar. 24	9.54	June 16	8.23	Sept. 8	9.72
20	10.36	31	9.53	July 7	7.07	15	9.66
27	10.51	Apr. 14	9.94	14	7.88	Oct. 6	9.56
Feb. 10	9.64	28	9.94	21	8.23	27	7.15
17	9.74	May 12	9.95	28	8.50	Nov. 11	7.39
24	10.08	19	10.30	Aug. 25	9.39	Dec. 1	7.90
Mar. 3	10.04	26	10.44	Sept. 2	9.58	12	8.17
18	9.46	June 3	10.35				

1192. City of Wichita. SE¼SE¼ sec. 30, T. 23 S., R. 2 W. Situated 1.3 feet west of well M-4a, and 101.3 feet southwest of well M-4. Driven observation well, diameter 1¼ inches, depth 20.5 feet. Measuring point, top of pipe, 1.0 foot above land surface, 0.43 foot above bench mark, 1,432.12 feet above sea level. Bench mark at city supply well M-4 is a brass plug that protrudes an eighth of an inch above the surface of the concrete floor in the well house, 1,431.69 feet above sea level.

Water level, in feet below measuring point, 1941

May 28	17.42	July 14	16.84	Sept.10	17.20	Nov. 11	17.00
June 2	17.41	21	16.87	15	17.20	Dec. 1	16.93
16	17.15	28	16.92	Oct. 8	17.22	15	16.90
July 7	16.91	Aug. 25	17.08	24	17.18		

M-1. City of Wichita. NW cor. sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	a 72.57	Mar. 24	27.00	June 2	a 73.78	Sept.10	29.79
20	a 72.63	31	27.70	16	32.77	15	29.66
28	34.84	Apr. 21	a 72.02	July 7	29.28	Oct. 8	34.03
Feb. 10	27.30	28	a 74.00	14	26.46	24	26.21
17	27.24	May 12	28.14	21	a 71.83	Nov. 11	29.38
25	29.73	19	27.40	28	a 73.02	Dec. 1	29.04
Mar. 3	a 70.11	26	a 73.59	Aug. 25	32.63	15	24.07
18	29.53						

M-1a. City of Wichita. NW cor. sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	b 36.73	Feb. 10	24.02	Mar. 3	b 36.12	Mar. 31	24.65
20	b 36.89	17	23.92	18	25.80	Apr. 21	b 34.98
28	29.67	25	25.17	24	23.91	28	b 37.72

a Well pumping. b Well M-1 pumping.

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Harvey County--Continued

M-1a. City of Wichita.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 12	24.80	July 7	25.55	Aug. 25	28.77	Oct. 24	23.25
19	24.11	14	23.39	Sept.10	26.55	Nov. 11	25.73
26	a 37.64	21	a 36.71	15	24.56	Dec. 1	29.04
June 2	a 37.11	28	a 38.33	Oct. 8	30.30	15	21.23
16	29.34						

M-1b. City of Wichita. NW cor. sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	a 33.57	Mar. 24	22.60	June 2	a 34.05	Sept.10	25.28
20	a 33.75	31	23.30	16	28.05	15	23.27
28	27.98	Apr. 21	a 31.98	July 7	24.36	Oct. 8	30.72
Feb. 10	22.67	28	a 34.70	'14	22.04	24	21.87
17-	22.61	May 12	23.45	21	a 33.87	Nov. 11	24.55
25	23.91	19	22.79	28	a 35.42	Dec. 1	24.48
Mar. 3	a 33.29	26	a 34.66	Aug. 25	27.67	15	19.84
18	24.58						

M-2. City of Wichita. NW¼SW¼ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	36.75	Mar. 18	b 92.30	May 26	39.10	Sept.10	37.73
20	35.16	24	34.87	June 2	36.95	15	40.21
28	37.49	31	33.79	16	37.03	Oct. 8	44.05
Feb. 10	36.50	Apr. 21	36.10	July 7	b 92.59	24	31.59
17	38.57	28	39.06	14	32.81	Nov. 11	b 94.61
25	b 90.81	May 12	38.69	21	44.15	Dec. 1	38.98
Mar. 3	37.53	19	37.23	28	43.43	15	29.38

M-2a. City of Wichita. NW¼SW¼ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	32.67	Mar. 24	25.74	June 2	33.12	Sept.10	28.47
20	32.20	31	25.87	16	30.31	15	27.50
28	29.86	Apr. 21	31.55	July 7	c 30.75	Oct. 8	32.87
Feb. 10	25.71	28	34.60	14	24.61	24	24.11
17	26.63	May 12	26.06	21	35.20	Nov. 11	c 30.38
25	c 29.60	19	25.79	28	35.83	Dec. 1	28.84
Mar. 3	33.22	26	34.38	Aug. 25	c 34.63	15	22.04
18	c 30.39						

M-2b. City of Wichita. NW¼SW¼ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	31.69	Mar. 24	29.74	June 2	32.39	Sept.10	31.99
20	30.59	31	28.78	16	32.40	15	32.66
28	31.98	Apr. 21	32.30	July 7	c 34.20	Oct. 8	37.10
Feb. 10	28.61	28	35.72	14	27.29	24	26.34
17	31.05	May 12	30.51	21	36.65	Nov. 11	c 31.33
25	c 30.05	19	29.34	28	36.15	Dec. 1	32.34
Mar. 3	33.33	26	34.38	Aug. 25	c 38.49	15	24.48
18	c 31.49						

M-3. City of Wichita. SE¼SE¼SW¼ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	35.16	Mar. 24	35.69	June 2	35.41	Sept.10	b 73.11
20	33.20	31	34.49	16	36.61	15	b 76.42
28	37.34	Apr. 21	33.49	July 7	b 75.44	Oct. 8	b 77.99
Feb. 10	b 71.12	28	35.67	14	34.08	24	32.91
17	b 72.96	May 12	b 75.75	21	b 74.81	Nov. 11	37.33
25	36.17	19	b 73.23	28	b 74.24	Dec. 1	38.23
Mar. 3	34.98	26	37.68	Aug. 25	42.57	15	30.75
18	37.34						

a Well M-1 pumping. b Well pumping. c Well M-2 pumping.

Harvey County--Continued

M-3a. SE¼SE¼SW¼ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	30.20	Mar. 24	31.45	June 2	30.52	Sept.10	a 34.88
20	28.11	31	29.84	16	32.50	15	a 38.71
28	32.41	Apr. 21	29.15	July 7	a 40.56	Oct. 8	a 42.13
Feb. 10	a 34.64	28	32.22	14	28.73	24	27.46
17	a 37.34	May 12	a 37.31	21	a 41.12	Nov. 11	32.00
25	30.35	19	a 35.53	28	a 40.08	Dec. 1	33.90
Mar. 3	31.01	26	33.68	Aug. 25	38.62	15	25.37
18	31.80						

M-3b. SE¼SE¼SW¼ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	33.43	Mar. 24	35.60	June 2	33.84	Sept.10	a 38.44
20	31.31	31	32.30	16	35.91	15	a 41.98
28	35.98	Apr. 21	32.84	July 7	a 43.85	Oct. 8	a 45.32
Feb. 10	a 37.57	28	35.70	14	32.16	24	30.90
17	a 40.34	May 12	a 40.23	21	a 44.64	Nov. 11	35.62
25	33.84	19	a 38.50	28	a 43.29	Dec. 1	37.66
Mar. 3	34.38	26	37.60	Aug. 25	42.90	15	28.85
18	35.40						

M-4. City of Wichita. SE cor. sec. 30, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	34.93	Mar. 24	37.56	June 2	35.51	Sept.10	39.07
20	32.80	31	34.47	16	37.97	15	b 79.01
28	39.00	Apr. 21	b 71.48	July 7	43.48	Oct. 8	b 78.16
Feb. 10	34.88	28	b 73.68	14	32.96	24	31.56
17	39.44	May 12	37.33	21	43.73	Nov. 11	37.93
25	35.80	19	35.63	28	41.49	Dec. 1	39.90
Mar. 3	b 68.84	26	40.19	Aug. 25	b 80.86	15	29.91
18	37.54						

M-4a. City of Wichita. SE cor. sec. 30, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	33.12	Mar. 24	34.33	June 2	33.80	Sept.10	36.39
20	31.48	31	32.28	16	35.81	15	c 39.07
28	36.03	Apr. 21	c 35.80	July 7	39.56	Oct. 8	c 42.93
Feb. 10	32.55	28	c 39.11	14	30.90	24	29.63
17	36.46	May 12	34.92	21	40.54	Nov. 11	35.00
25	33.32	19	33.48	28	38.86	Dec. 1	37.05
Mar. 3	c 36.33	26	37.75	Aug. 25	c 44.80	15	27.90
18	34.88						

M-4b. City of Wichita. SE cor. sec. 30, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	33.66	Mar. 24	34.88	June 2	34.41	Sept.10	31.70
20	32.19	31	32.90	16	36.18	15	c 38.82
28	36.32	Apr. 21	c 35.99	July 7	39.14	Oct. 8	c 42.63
Feb. 10	33.08	28	c 39.14	14	31.59	24	30.36
17	36.71	May 12	35.34	21	40.55	Nov. 11	35.45
25	33.80	19	34.03	28	39.04	Dec. 1	37.30
Mar. 3	c 36.46	26	37.84	Aug. 25	c 44.19	15	28.85
18	35.33						

a Well M-3 pumping.
b Well pumping.
c Well M-4 pumping.

Harvey County--Continued

M-5. City of Wichita. NW¼SW¼ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	28.20	Mar. 24 a	92.04	June 2	31.78	Sept.15	30.53
20	26.85	31	34.30	16	37.33	Oct. 2	30.77
28	29.99	Apr. 21	31.59	July 7 a	90.41	8	40.46
Feb. 10	27.55	28	31.05	14	30.80	24	27.75
17	29.06	May 12	34.08	21 a	93.41	Nov. 11	31.03
25	26.97	19	29.80	Aug. 23 a	93.41	Dec. 1	40.03
Mar. 3	28.11	26 a	90.41	Sept.10	30.49	15	26.84
18	29.15						

M-5a. City of Wichita. NW¼SW¼ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	22.60	Mar. 24 b	24.84	June 16	26.36	Sept.15	24.50
20	22.29	31	23.74	July 7 b	25.73	Oct. 2	24.97
28	24.35	Apr. 21	23.23	14	24.25	8	27.18
Feb. 10	22.70	28	23.44	21 b	27.47	24	24.08
17	22.91	May 12	23.76	28 b	25.34	Nov. 11	26.62
25	22.57	19	23.91	Aug. 25 b	26.13	Dec. 1	25.23
Mar. 3	23.33	26 b	24.75	Sept.10	24.68	15	24.35
18	25.25	June 2	25.81				

M-5b. City of Wichita. NW¼SW¼ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	22.80	Mar. 24 b	24.44	June 16	26.40	Sept.15	24.57
20	22.49	31	23.89	July 7 b	25.51	Oct. 2	25.03
28	24.62	Apr. 21	23.43	14	24.42	8	27.03
Feb. 10	22.88	28	23.55	21 b	27.04	24	24.34
17	23.01	May 12	23.80	28 b	25.20	Nov. 11	26.76
25	22.74	19	24.02	Aug. 25 b	25.86	Dec. 1	25.32
Mar. 3	23.51	26 b	24.60	Sept.10	23.74	15	24.62
18	25.32	June 2	25.87				

M-6. City of Wichita. SW¼SW¼ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	25.30	Mar. 18 c	72.68	June 2	cd71.01	Sept.10	26.85
20	24.41	24 c	49.87	12	d34.64	15	26.59
28	24.60	31	27.10	July 7	27.93	Oct. 2	26.80
Feb. 3 c	70.23	Apr. 21	25.50	14	27.07	6	26.57
10	25.13	28	25.50	21	cd78.43	24	26.52
17	25.16	May 12	25.71	28	27.36	Nov. 11	cd80.63
25	24.77	19	26.37	Aug. 25	27.83	Dec. 1	27.72
Mar. 3	25.83	26	26.68	Sept. 2	26.50	15	27.27

M-6a. City of Wichita. SW¼SW¼ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	23.73	Mar. 18 e	26.81	June 2 e	27.34	Sept.10	25.75
20	23.42	24 e	25.93	16	27.73	15	25.62
28	23.53	31	25.02	July 7	26.41	Oct. 2	25.79
Feb. 3 e	27.03	Apr. 21	24.48	14	25.70	6	25.65
10	23.85	28	24.46	21 e	28.54	24	25.67
17	23.87	May 12	24.71	28	26.06	Nov. 11 e	28.47
25	23.71	19	25.14	Aug. 25	26.59	Dec. 1	26.35
Mar. 3 e	24.51	26	25.27	Sept. 2	25.63	15	26.19

a Well pumping, measurement from drawdown gage.
b Well M-5 pumping.
c Well pumping.
d Measurement from drawdown gage.
e Well M-6 pumping.

Harvey County--Continued

M-6b. City of Wichita. SW¼SW¼ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	23.56	Mar. 18	a 26.46	June 2	a 27.08	Sept.10	25.60
20	23.27	24	a 25.69	16	27.39	15	25.40
28	23.33	31	24.80	July 7	26.13	Oct. 2	25.62
Feb. 3	a 26.67	Apr. 21	24.26	14	25.44	6	25.79
10	23.67	28	24.26	21	a 28.21	24	25.44
17	23.68	May 12	24.48	28	25.86	Nov. 11	a 28.10
25	23.52	19	24.87	Aug. 25	26.45	Dec. 1	26.13
Mar. 3	a 24.31	26	25.09	Sept. 2	25.43	15	25.85

M-7. City of Wichita. NW cor.SW¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	17.72	Mar. 31	b 24.54	June 16	b 24.71	Sept.15	b 26.37
28	17.57	Apr. 17	17.90	July 7	15.89	Oct. 8	19.24
Feb. 10	19.97	28	17.86	14	16.45	17	19.11
17	18.00	May 12	18.39	21	16.30	Nov. 11	b 25.68
Mar. 3	17.36	19	18.37	28	18.00	21	18.55
18	17.01	26	18.18	Aug. 26	b 26.25	Dec. 1	17.54
24	17.17	June 2	b 25.04	Sept.10	20.46	15	17.23

M-7a. City of Wichita. NW¼SW¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	16.47	Mar. 31	c 18.95	June 16	c 18.60	Sept.15	c 20.28
28	16.30	Apr. 17	16.63	July 7	14.68	Oct. 8	18.03
Feb. 10	16.75	28	16.59	14	15.28	17	16.87
17	16.77	May 12	17.17	21	15.04	Nov. 11	c 19.71
Mar. 3	16.10	19	17.12	28	15.90	21	17.35
18	15.73	26	16.94	Aug. 26	c 20.03	Dec. 1	16.32
24	15.91	June 2	c 19.17	Sept.10	19.30	15	15.98

M-7b. City of Wichita. SW cor. NW¼ sec. 16

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	16.56	Mar. 31	c 17.66	June 16	c 17.36	Sept.15	c 19.11
28	16.35	Apr. 17	16.71	July 7	14.88	Oct. 8	18.22
Feb. 10	16.78	28	16.71	14	15.52	17	16.89
17	16.78	May 12	17.25	21	15.18	Nov. 11	c 18.42
Mar. 3	16.13	19	17.28	28	16.20	21	16.46
18	15.80	26	17.04	Aug. 26	c 18.67	Dec. 1	16.38
24	16.07	June 2	c 17.98	Sept.10	19.12	15	16.06

M-8. City of Wichita. SE¼NE¼ sec. 6, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	22.64	Mar. 24	23.77	June 16	25.32	Oct. 8	24.97
20	22.37	31	b 83.86	July 7	b 80.12	Nov. 11	26.71
27	22.58	Apr. 17	23.86	14	b 81.11	21	25.71
Feb. 10	22.94	28	23.88	21	b 81.01	Dec. 1	b 81.10
17	22.97	May 12	24.07	28	25.26	15	b 80.71
25	23.05	19	b 81.01	Aug. 25	25.85		
Mar. 3	b 78.21	26	24.50	Sept.10	25.44		
18	24.15	June 2	24.99	15	25.08		

M-8a. City of Wichita. SE¼NE¼ sec. 6, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	19.89	Feb. 17	20.04	Mar. 24	20.69	May 12	20.94
20	19.73	25	20.08	31	d 21.27	19	d 21.53
27	19.76	Mar. 3	d 20.78	Apr. 17	20.71	26	21.11
Feb. 10	20.18	18	20.85	28	20.67	June 2	21.50

a Well M-6 pumping.
b Well pumping.
c Well M-7 pumping.
d Well M-8 pumping.

Harvey County--Continued

M-8a.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 16	21.63	July 28	22.24	Sept.15	22.11	Nov. 21	22.00
July 7	a 22.41	Aug. 25	22.64	Oct. 8	21.89	Dec. 1	a 22.71
14	a 22.48	Sept.10	22.29	Nov. 11	23.00	15	a 23.26
21	a 22.87						

M-8b. City of Wichita. SE¼NE¼ sec. 6, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	18.66	Mar. 24	19.44	June 2	20.52	Sept.10	20.93
20	18.40	31	a 20.06	16	20.46	15	20.78
27	18.43	Apr. 17	19.46	July 7	a 21.22	Oct. 8	20.60
Feb. 10	18.92	28	19.38	14	a 21.22	Nov. 11	21.80
17	18.70	May 12	19.65	21	a 21.77	21	21.22
25	18.71	19	a 20.29	28	21.00	Dec. 1	a 21.45
Mar. 3	a 19.52	26	19.88	Aug. 25	21.37	15	a 21.95
18	19.71						

M-9. City of Wichita. NW¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	17.87	Mar. 31	b 45.77	June 16	b 46.48	Sept.15	20.53
28	18.36	Apr. 17	18.76	July 7	20.10	Oct. 6	20.08
Feb. 10	18.35	28	19.16	14	b 46.73	17	b 52.13
17	b 43.66	May 12	b 45.72	21	b 45.03	Nov. 11	b 53.00
Mar. 3	18.93	19	19.50	28	20.54	21	20.31
18	18.33	26	19.53	Aug. 26	20.52	Dec. 1	20.94
24	18.82	June 2	19.21	Sept.10	b 55.71	15	b 53.84

M-9a. City of Wichita. NW¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	16.19	Mar. 31	c 17.82	June 16	c 18.83	Sept.15	18.94
28	16.68	Apr. 17	17.07	July 7	18.19	Oct. 6	18.47
Feb. 10	16.57	28	17.34	14	c 19.31	17	c 19.05
17	c 17.16	May 12	c 18.09	21	c 19.22	Nov. 11	c 20.10
Mar. 3	17.07	19	17.62	28	18.65	21	18.80
18	16.68	26	17.69	Aug. 26	18.89	Dec. 1	18.96
24	17.14	June 2	17.67	Sept.10	c 19.82	15	c 20.18

M-9b. City of Wichita. NW¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	15.10	Mar. 31	c 16.35	June 16	c 17.44	Sept.15	17.75
28	15.64	Apr. 17	15.99	July 7	17.17	Oct. 6	17.39
Feb. 10	15.63	28	16.19	14	c 17.93	17	c 17.67
17	c 15.94	May 12	c 16.71	21	c 17.83	Nov. 11	c 18.63
Mar. 3	16.04	19	16.59	28	17.55	21	17.70
18	15.63	26	16.61	Aug. 26	17.74	Dec. 1	17.81
24	16.04	June 2	16.60	Sept.10	c 18.54	15	c 18.79

M-10. City of Wichita. NE¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	b 61.23	Mar. 24	21.13	June 16	22.25	Sept.15	23.56
20	b 61.37	31	22.52	July 7	21.82	Oct. 6	22.90
27	20.32	Apr. 17	20.96	14	b 63.59	17	22.79
Feb. 10	20.53	28	b 64.08	21	22.10	Nov. 11	b 61.72
17	20.26	May 12	21.61	28	22.98	21	22.28
25	b 61.70	19	21.88	Aug. 25	22.79	Dec. 1	b 66.03
Mar. 3	20.40	26	b 64.43	Sept.10	24.40	15	b 67.00
18	20.73	June 3	22.05				

a Well M-8 pumping. b Well pumping. c Well M-9 pumping.

Harvey County--Continued

M-10a. City of Wichita. NE¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	a 20.23	Mar. 24	18.23	June 16	19.63	Sept.15	20.44
20	a 20.34	31	18.53	July 7	19.14	Oct. 6	19.85
27	17.61	Apr. 17	18.34	14	a 22.35	17	19.78
Feb. 10	17.61	28	a 21.49	21	19.65	Nov. 11	a 23.72
17	17.63	May 12	18.87	28	19.93	21	19.84
25	a 21.07	19	18.85	Aug. 25	20.14	Dec. 1	a 24.63
Mar. 3	17.93	26	a 22.16	Sept.10	21.01	15	a 23.87
18	17.77	June 3	19.18				

M-10b. City of Wichita. NE¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	a 17.28	Mar. 24	17.29	June 16	18.72	Oct. 6	18.79
20	a 17.41	31	17.57	July 7	18.23	17	18.80
28	16.75	Apr. 17	17.36	14	a 19.51	Nov. 11	a 20.98
Feb. 10	16.62	28	a 18.55	21	18.90	21	19.14
17	16.72	May 12	17.86	28	18.91	Dec. 1	a 20.37
25	a 18.17	19	17.82	Aug. 25	19.24	15	a 20.98
Mar. 3	17.16	26	a 19.02	Sept.10	19.76		
18	16.91	June 3	18.07	15	19.34		

M-11. City of Wichita. SW¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	14.06	Mar. 31	15.32	June 16	16.59	Sept.15	17.05
28	14.97	Apr. 17	15.28	July 7	b 35.93	Oct. 8	16.43
Feb. 10	b 30.11	28	15.05	14	b 36.92	17	16.50
17	b 34.32	May 12	15.90	21	16.39	Nov. 11	17.12
Mar. 3	b 32.54	19	b 35.38	28	b 35.93	21	16.23
18	14.60	26	16.02	Aug. 26	16.84	Dec. 1	16.55
24	14.84	June 2	15.91	Sept.10	17.84	15	b 38.02

M-11a. City of Wichita. SW¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	12.24	Mar. 31	13.19	June 16	14.69	Sept.15	15.21
28	13.29	Apr. 17	13.28	July 7	c 15.98	Oct. 8	14.66
Feb. 10	c 14.58	28	13.26	14	c 16.52	17	14.59
17	c 14.94	May 12	13.64	21	14.67	Nov. 11	15.24
Mar. 3	c 14.85	19	c 15.54	28	c 16.06	21	14.67
18	12.90	26	13.98	Aug. 26	14.91	Dec. 1	14.61
24	13.02	June 2	14.07	Sept.10	15.63	15	c 17.35

M-11b. City of Wichita. SW¼NW¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	13.32	Mar. 31	14.25	June 16	15.64	Sept.15	16.32
28	14.30	Apr. 17	14.30	July 7	c 16.28	Oct. 8	15.71
Feb. 10	c 14.68	28	14.35	14	c 16.43	17	15.70
17	c 14.99	May 12	14.69	21	15.85	Nov. 11	16.43
Mar. 3	c 15.02	19	c 15.60	28	c 16.23	21	15.84
18	13.98	26	15.01	Aug. 26	16.02	Dec. 1	15.79
24	14.14	June 2	15.11	Sept.10	16.69	15	c 17.52

M-12. City of Wichita. NW¼SW¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	19.97	Mar. 3	19.12	Apr. 17	21.55	May 26	22.01
28	20.01	18	b 47.61	28	20.93	June 2	b 46.32
Feb. 10	b 43.58	24	b 45.76	May 12	21.33	16	20.72
17	b 44.38	31	21.27	19	b 47.98	July 7	20.31

a Well M-10 pumping.
b Well pumping.
c Well M-11 pumping.

Harvey County--Continued

M-12.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 14	a 46.61	Aug. 26	22.47	Oct. 8	a 50.03	Nov. 21	21.19
21	19.85	Sept.10	a 51.45	17	20.00	Dec. 1	20.93
28	a 48.51	15	a 50.63	Nov. 11	20.91	15	20.81

M-12a. City of Wichita. NW¼SW¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	17.95	Mar. 31	19.19	June 16	18.84	Sept.15	b 27.20
28	18.08	Apr. 17	19.61	July 7	18.54	Oct. 8	b 26.10
Feb. 10	b 23.44	28	18.98	14	b 23.16	17	18.39
17	b 21.31	May 12	19.61	21	18.03	Nov. 11	19.00
Mar. 3	17.16	19	b 25.20	28	b 26.35	21	19.46
18	b 24.00	26	20.24	Aug. 26	20.65	Dec. 1	19.21
24	b 20.91	June 2	b 23.86	Sept.10	b 28.17	15	18.84

M-12b. City of Wichita. NW¼SW¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	18.68	Mar. 31	19.70	June 16	19.51	Sept.15	b 27.39
28	18.77	Apr. 17	20.27	July 7	19.27	Oct. 8	b 26.47
Feb. 10	b 23.72	28	19.72	14	b 23.47	17	19.12
17	b 21.55	May 12	20.33	21	18.69	Nov. 11	19.80
Mar. 3	17.81	19	b 25.52	28	b 26.67	21	20.24
18	b 24.19	26	20.91	Aug. 26	21.33	Dec. 1	19.93
24	b 22.32	June 2	b 24.17	Sept.10	b 28.34	15	19.50

M-13. City of Wichita. NW¼NE¼ sec. 17, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	15.40	Mar. 31	16.30	June 16	16.67	Sept.15	a 40.81
28	a 37.18	Apr. 17	a 38.54	July 7	a 37.96	Oct. 8	a 39.54
Feb. 10	a 34.94	28	16.08	14	a 38.80	17	16.71
17	15.78	May 12	a 39.16	21	15.71	Nov. 11	16.73
Mar. 3	15.52	19	17.36	28	a 38.97	21	16.89
18	15.86	26	a 38.99	Aug. 26	a 40.26	Dec. 1	a 38.93
24	15.99	June 2	17.26	Sept.10	a 40.65		

M-13a. City of Wichita. NW¼NE¼ sec. 17, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	13.82	Mar. 31	14.34	June 16	14.90	Sept.15	c 17.78
28	c 15.39	Apr. 17	c 16.01	July 7	c 15.98	Oct. 8	c 17.47
Feb. 10	c 15.23	28	14.65	14	c 16.47	17	15.75
17	13.84	May 12	c 16.52	21	14.71	Nov. 11	15.42
Mar. 3	14.00	19	15.34	28	c 16.77	21	15.56
18	13.87	26	c 16.76	Aug. 26	c 17.08	Dec. 1	c 16.52
24	14.01	June 2	15.32	Sept.10	c 16.90		

M-13b. City of Wichita. NW¼NE¼ sec. 17, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 20	14.05	Mar. 31	14.58	June 16	15.22	Sept.15	c 17.22
28	c 14.60	Apr. 17	c 15.10	July 7	c 15.77	Oct. 8	c 17.09
Feb. 10	c 14.42	28	15.02	14	c 16.13	17	16.37
17	13.97	May 12	c 15.78	21	15.42	Nov. 11	15.91
Mar. 3	14.26	19	15.63	28	c 16.40	21	16.19
18	13.87	26	c 16.22	Aug. 26	c 16.46	Dec. 1	c 16.19
24	14.20	June 2	15.58	Sept.10	c 17.20		

a Well pumping. b Well M-12 pumping. c Well M-13 pumping.

Harvey County--Continued

M-14. City of Wichita. NW cor. NW¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	a 34.62	Mar. 31	18.11	June 16	17.72	Sept.15	20.02
28	17.24	Apr. 17	17.66	July 7	18.01	Oct. 8	a 38.91
Feb. 10	17.40	28	a 36.16	14	a 36.03	17	18.72
17	16.93	May 12	18.21	21	18.01	Nov. 11	18.41
Mar. 3	17.33	19	a 36.35	28	a 36.27	21	a 37.10
18	17.08	26	18.70	Aug. 26	18.85	Dec. 1	18.50
24	a 35.17	June 2	18.57	Sept.10	20.08	15	17.80

M-14a. City of Wichita. NW¼NW¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	b 23.68	Mar. 31	16.38	June 16	15.97	Sept.15	17.93
28	15.33	Apr. 17	15.69	July 7	16.49	Oct. 8	a 27.52
Feb. 10	15.22	28	b 24.80	14	b 24.85	17	17.32
17	14.92	May 12	16.32	21	16.64	Nov. 11	16.88
Mar. 3	15.67	19	b 25.22	28	b 25.45	21	b 26.06
18	15.06	26	15.93	Aug. 26	17.01	Dec. 1	16.96
24	b 23.64	June 2	16.71	Sept.10	17.96	15	16.25

M-14b. City of Wichita. SW¼SW¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	b 19.77	Mar. 31	16.18	June 16	15.88	Sept.15	17.67
28	15.14	Apr. 17	15.45	July 7	16.54	Oct. 8	b 23.57
Feb. 10	14.90	28	b 20.90	14	b 21.13	17	17.38
17	14.71	May 12	16.20	21	16.73	Nov. 11	16.82
Mar. 3	15.58	19	b 21.36	28	b 21.76	21	b 22.25
18	14.84	26	16.80	Aug. 26	16.80	Dec. 1	16.94
24	b 19.57	June 2	16.53	Sept.10	17.67	15	16.54

M-15. City of Wichita. SE cor. NE¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	19.54	Mar. 24	19.61	June 3	20.71	Sept.10	a 43.95
20	21.31	31	22.53	16	21.73	15	a 43.27
27	a 38.77	Apr. 17	a 39.83	July 7	21.44	Oct. 8	21.30
Feb. 10	19.69	28	21.90	14	19.20	17	19.96
17	19.61	May 12	19.59	21	21.71	Nov. 11	a 39.96
25	18.81	19	20.18	28	20.66	Dec. 1	19.62
Mar. 3	21.00	26	19.71	Aug. 25	a 41.49	15	21.50
18	a 39.51						

M-15a. City of Wichita. SE¼NE¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	17.70	Mar. 24	17.82	June 3	18.89	Sept.10	c 28.44
20	19.48	31	20.67	16	19.76	15	c 28.79
27	c 24.64	Apr. 17	c 25.01	July 7	19.55	Oct. 6	19.52
Feb. 10	17.90	28	20.09	14	17.40	17	18.20
17	17.80	May 12	17.81	21	19.84	Nov. 11	c 24.55
25	16.99	19	18.66	28	18.86	Dec. 1	17.84
Mar. 3	19.10	26	17.91	Aug. 25	c 25.89	15	19.64
18	c 25.24						

M-15b. City of Wichita. SE¼NE¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	18.78	Feb. 25	18.11	Apr. 17	c 24.74	June 3	20.05
20	22.53	Mar. 3	20.20	28	21.20	16	20.94
27	c 24.37	18	c 25.04	May 12	18.98	July 7	20.67
Feb. 10	18.94	24	19.09	19	19.83	14	18.57
17	18.99	31	21.73	26	19.08	21	21.01

a Well pumping. b Well M-14 pumping. c Well M-15 pumping.

Harvey County--Continued

M-15b.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 28	20.05	Sept.10	a 28.18	Oct. 17	19.37	Dec. 1	18.91
Aug. 25	a 25.63	15	a 28.62	Nov. 11	a 24.28	15	20.70

M-16. City of Wichita. SE cor. SE¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	b 40.73	Mar. 24	16.89	June 3	18.67	Sept.10	b 48.61
20	b 42.36	31	b 44.71	16	18.53	15	b 47.66
27	18.91	Apr. 17	19.92	July 7	b 43.43	Oct. 6	18.45
Feb. 10	17.58	28	b 44.06	14	16.49	17	17.00
17	17.53	May 12	17.04	21	b 44.73	Nov. 11	18.35
25	16.51	19	18.44	28	18.03	Dec. 1	b 43.96
Mar. 3	b 41.02	26	17.39	Aug. 25	19.62	15	b 46.31
18	19.37						

M-16a. City of Wichita. SE¼SE¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	c 21.31	Mar. 24	16.08	June 3	17.64	Sept.10	c 26.53
20	c 23.24	31	c 24.34	16	17.28	15	c 26.51
27	17.72	Apr. 17	18.64	July 7	c 22.77	Oct. 6	17.69
Feb. 10	16.66	28	c 24.02	14	15.60	17	16.29
17	16.55	May 12	16.22	21	c 23.24	Nov. 11	17.35
25	15.74	19	17.46	28	17.08	Dec. 1	c 21.25
Mar. 3	c 22.67	26	16.54	Aug. 25	18.61	15	c 23.53
18	18.19						

M-16b. City of Wichita. SE¼SE¼ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	c 15.18	Mar. 24	15.08	June 3	15.91	Sept.10	c 17.77
20	c 16.08	31	c 16.62	16	15.53	15	c 17.93
27	15.67	Apr. 17	16.16	July 7	c 15.87	Oct. 6	16.31
Feb. 10	15.09	28	c 16.58	14	13.82	17	15.59
17	15.10	May 12	15.28	21	c 16.02	Nov. 11	15.60
25	14.79	19	15.71	28	15.45	Dec. 1	c 15.43
Mar. 3	c 15.97	26	15.44	Aug. 25	16.30	15	c 16.44
18	15.90						

M-17. City of Wichita. NE¼SE¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	12.08	Mar. 24	11.96	June 3	b 34.29	Sept. 8	13.70
20	12.71	31	14.20	16	b 34.22	15	13.88
28	12.21	Apr. 16	b 34.51	July 7	11.16	Oct. 6	12.93
Feb. 10	b 30.53	28	13.19	14	11.06	17	11.87
17	b 33.50	May 12	12.17	21	b 34.16	Nov. 11	11.18
25	12.07	19	b 34.45	28	b 34.17	Dec. 1	14.67
Mar. 3	12.53	26	b 34.19	Aug. 25	b 34.31	15	12.52
18	12.01						

M-17a. City of Wichita. NE¼SE¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	9.64	Mar. 24	9.66	June 3	d 12.10	Sept. 8	10.71
20	9.98	31	10.95	16	d 10.35	15	10.86
27	9.75	Apr. 16	d 12.14	July 7	8.46	Oct. 6	10.53
Feb. 10	d 11.28	28	10.53	14	8.71	17	9.72
17	d 11.80	May 12	10.04	21	d 10.14	Nov. 11	8.66
25	9.89	19	d 11.80	28	d 10.87	Dec. 1	11.00
Mar. 3	9.93	26	d 11.36	Aug. 25	d 11.04	15	9.92
18	9.50						

a Well M-15 pumping.
b Well pumping.
c Well M-16 pumping.
d Well M-17 pumping.

Harvey County--Continued

M-17b. City of Wichita. NE¼SE¼ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	9.46	Mar. 24	9.48	June 3	a 11.33	Sept.10	10.67
20	9.87	31	10.67	16	a 9.69	15	10.84
27	9.60	Apr. 16	a 11.25	July 7	8.59	Oct. 6	10.39
Feb. 10	a 10.38	28	10.47	14	8.74	17	9.58
17	a 10.88	May 12	9.78	21	a 9.64	Nov. 11	8.53
25	9.66	19	a 10.90	28	a 10.18	Dec. 1	10.55
Mar. 3	9.78	26	a 10.64	Aug. 25	a 10.44	15	9.87
18	9.38						

M-18. City of Wichita. SE¼SW¼ sec. 22, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	16.67	Mar. 24	b 42.71	June 3	16.60	Sept.10	19.49
20	16.16	31	16.56	16	15.16	15	16.03
27	15.99	Apr. 16	16.02	July 7	b 40.51	Oct. 6	16.43
Feb. 10	15.76	28	15.83	14	14.37	27	15.41
17	15.67	May 12	b 41.80	21	b 39.78	Nov. 11	14.44
25	b 42.05	19	16.12	28	b 39.53	Dec. 1	b 38.72
Mar. 3	16.51	26	b 39.27	Aug. 25	b 38.28	12	16.44
18	b 41.61						

M-18a. City of Wichita. SE¼SW¼ sec. 22, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	15.87	Mar. 24	c 29.88	June 3	15.80	Sept.10	18.44
20	15.38	31	15.75	16	14.40	15	15.31
27	15.22	Apr. 16	15.24	July 7	c 27.54	Oct. 6	15.67
Feb. 10	14.99	28	15.04	14	13.61	24	14.41
17	14.90	May 12	c 29.11	21	c 27.36	Nov. 11	13.77
25	c 29.57	19	15.37	28	c 27.17	Dec. 1	c 27.21
Mar. 3	15.71	26	c 28.09	Aug. 25	c 27.74	12	15.67
18	c 29.28						

M-18b. City of Wichita. SE¼SW¼ sec. 22, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	15.08	Mar. 24	c 22.47	June 3	15.00	Sept.10	17.50
20	14.64	31	14.91	16	13.47	15	14.50
27	14.48	Apr. 16	14.47	July 7	c 19.98	Oct. 6	14.82
Feb. 10	14.25	28	14.31	14	12.80	27	13.55
17	14.20	May 12	c 21.80	21	c 20.08	Nov. 11	12.96
25	c 22.08	19	14.55	28	c 19.89	Dec. 1	c 20.33
Mar. 3	14.89	26	c 21.50	Aug. 25	c 21.09	12	14.68
18	c 22.09						

M-19. City of Wichita. NE¼NE¼ sec. 27, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	17.48	Mar. 24	17.92	June 3	17.64	Sept. 8	17.12
20	17.12	31	b 33.73	16	b 32.86	15	17.21
27	16.98	Apr. 15	17.38	July 7	15.97	Oct. 8	b 33.98
Feb. 10	17.15	28	17.13	14	15.70	27	17.02
17	16.93	May 12	b 35.30	21	b 28.93	Nov. 11	16.29
25	17.61	19	17.61	28	b 33.29	Dec. 1	17.23
Mar. 3	b 34.07	26	18.01	Aug. 25	17.15	12	b 34.91
18	18.85						

a Well M-17 pumping. b Well pumping. c Well M-18 pumping.

Harvey County--Continued

M-19a. City of Wichita. NE¼NE¼ sec. 27, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	18.49	Mar. 24	18.68	June 3	18.63	Sept. 8	17.91
20	18.10	31	a 21.22	16	a 20.05	15	18.25
27	17.98	Apr. 15	18.44	July 7	16.74	Oct. 8	a 21.84
Feb. 10	18.21	28	18.15	14	16.72	27	18.06
17	17.98	May 12	a 21.71	21	a 19.05	Nov. 11	17.35
25	18.37	19	18.65	28	a 20.26	Dec. 1	18.13
Mar. 3	a 21.27	26	18.78	Aug. 25	17.97	12	a 21.18
18	18.63						

M-19b. City of Wichita. NE¼NE¼ sec. 27, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	17.44	Mar. 24	17.88	June 3	17.63	Sept. 8	17.00
20	17.01	31	a 17.96	16	a 16.73	15	17.10
27	16.86	Apr. 15	17.78	July 7	15.77	Oct. 8	a 18.32
Feb. 10	17.01	28	16.99	14	15.54	27	16.84
17	16.82	May 12	a 18.25	21	a 16.63	Nov. 11	16.11
27	17.54	19	17.51	28	a 17.08	Dec. 1	17.13
Mar. 3	a 17.96	26	17.92	Aug. 25	17.16	12	a 17.85
18	17.80						

M-20. City of Wichita. NW¼SE¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	17.35	Mar. 31	b 43.32	June 16	b 44.66	Sept.15	21.95
28	17.90	Apr. 17	b 43.34	July 7	19.50	Oct. 8	20.74
Feb. 10	18.06	28	18.63	14	20.63	17	19.29
17	18.06	May 12	b 44.26	21	18.97	Nov. 11	19.98
Mar. 3	17.78	19	20.02	28	b 44.69	21	19.27
18	18.26	26	b 44.37	Aug. 26	b 46.22	Dec. 1	b 45.96
24	18.50	June 3	b 43.04	Sept.10	b 48.68	15	20.23

M-20a. City of Wichita. NW¼SE¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	15.61	Mar. 31	c 17.07	June 16	c 18.29	Sept.15	19.72
28	15.87	Apr. 17	c 17.55	July 7	17.45	Oct. 8	18.64
Feb. 10	15.96	28	16.80	14	17.92	17	18.08
17	15.95	May 12	c 18.01	21	17.72	Nov. 11	18.52
Mar. 3	16.09	19	17.46	28	c 18.82	21	17.97
18	16.03	26	c 18.52	Aug. 26	c 19.35	Dec. 1	c 18.52
24	16.49	June 3	c 18.58	Sept.10	c 20.15	15	18.58

M-20b. City of Wichita. NW¼SE¼ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	14.69	Mar. 31	c 15.79	June 16	c 17.08	Sept.15	18.47
28	15.03	Apr. 17	c 16.35	July 7	16.59	Oct. 8	17.80
Feb. 10	15.08	28	15.86	14	17.00	17	17.35
17	15.11	May 12	c 16.77	21	15.63	Nov. 11	17.52
Mar. 3	15.26	19	16.56	28	c 17.52	21	17.10
18	15.10	26	c 17.23	Aug. 26	c 17.11	Dec. 1	c 17.26
24	15.46	June 3	c 17.38	Sept.10	c 18.80	15	17.52

M-21. City of Wichita. SW¼SW¼ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	15.21	Feb. 17	b 27.90	Mar. 24	15.13	May 12	15.70
20	15.22	24	15.49	31	15.44	19	b 29.00
27	15.05	Mar. 3	15.25	Apr. 14	15.60	26	16.09
Feb. 10	b 27.85	18	b 28.83	28	b 29.58	June 3	b 28.29

a Well M-19 pumping. b Well pumping. c Well M-20 pumping.

Harvey County--Continued

M-21.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 16	15.63	July 28	a 29.73	Sept. 8	15.55	Nov. 7	15.95
July 7	a 29.06	Aug. 4	15.69	15	a 29.98	11	15.62
14	a 30.13	25	15.23	Oct. 6	a 30.13	Dec. 1	14.76
21	a 28.62	Sept. 2	15.43	27	a 30.62	12	14.60

M-21a. City of Wichita. SW¼SW¼ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	14.00	Mar. 24	14.85	June 16	14.54	Sept. 8	14.40
20	14.04	31	14.30	July 7	b 20.08	15	b 20.83
27	13.89	Apr. 14	14.41	14	b 20.59	Oct. 6	b 21.48
Feb. 10	b 19.67	28	b 20.77	21	b 20.34	27	b 21.46
17	b 20.00	May 12	14.57	28	b 20.61	Nov. 7	14.88
24	14.36	19	b 20.49	Aug. 4	14.61	11	14.53
Mar. 3	14.13	26	14.95	25	14.12	Dec. 1	13.70
18	b 20.33	June 3	b 20.18	Sept. 2	14.35	12	13.49

M-21b. City of Wichita. SW¼SW¼ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	13.60	Mar. 24	14.49	June 16	14.10	Sept.10	13.94
20	13.62	31	13.93	July 7	b 17.44	15	b 18.08
27	13.47	Apr. 14	14.03	14	b 17.81	Oct. 6	b 18.97
Feb. 10	b 17.14	28	b 18.08	21	b 17.84	27	b 19.01
17	b 17.52	May 12	14.21	28	b 18.08	Nov. 7	14.56
24	13.99	19	b 17.92	Aug. 4	14.27	11	14.19
Mar. 3	13.65	26	14.61	25	13.74	Dec. 1	13.39
18	b 17.75	June 3	b 17.77	Sept. 2	13.84	12	13.17

M-22. City of Wichita. SW¼SE¼ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	a 33.11	Mar. 24	17.11	June 16	a 34.23	Sept.15	a 35.97
20	16.94	31	16.70	July 7	17.09	Oct. 6	a 34.92
27	16.71	Apr. 14	a 34.02	14	17.13	27	a 36.12
Feb. 10	17.37	28	17.98	21	17.60	Nov. 7	17.23
17	17.63	May 12	17.01	28	17.77	11	16.93
24	16.84	19	17.90	Aug. 25	17.03	Dec. 1	16.35
Mar. 3	16.69	26	17.36	Sept. 8	a 36.61	12	16.01
18	17.63	June 3	18.06				

M-22a. City of Wichita. SW¼SE¼ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	c 20.96	Mar. 24	15.16	June 16	c 21.69	Sept.15	c 23.08
20	15.03	31	14.72	July 7	15.23	Oct. 6	c 23.23
27	14.71	Apr. 14	c 21.61	14	15.28	27	c 20.49
Feb. 10	15.43	28	16.11	21	15.75	Nov. 7	15.36
17	15.71	May 12	15.19	28	15.86	11	15.04
24	14.88	19	15.98	Aug. 25	15.07	Dec. 1	14.43
Mar. 3	14.70	26	15.41	Sept. 8	c 22.94	12	14.08
18	15.67	June 5	16.16				

M-22b. City of Wichita. SE¼SW¼ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 13	c 17.27	Mar. 3	15.44	May 12	16.00	July 14	16.28
20	15.83	18	16.61	19	16.89	21	16.73
27	15.45	24	16.00	26	16.26	28	16.89
Feb. 10	16.31	31	15.53	June 3	17.07	Aug. 25	15.83
17	16.63	Apr. 14	c 18.05	16	c 17.95	Sept. 8	c 18.36
24	15.65	28	17.00	July 7	16.15	15	c 19.26

a Well pumping. b Well M-21 pumping. c Well M-22 pumping.

Harvey County--Continued

M-22b.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 6	a 20.00	Nov. 7	16.31	Dec. 1	15.17	Dec. 12	14.87
27	a 19.59	11	15.95				

M-23. City of Wichita. SE¼NE¼ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan.	13	b 39.61	Mar.	24	14.99	June	3	16.10	Sept.	8	16.10
	20	b 41.49		31	14.88		16	15.15		15	15.75
	27	16.16	Apr.	14	15.50	July	7	12.76	Oct.	6	16.28
Feb.	10	14.97		28	b 41.60		14	13.94		27	13.68
	17	14.86	May	12	15.55		21	b 41.01	Nov.	11	14.45
	24	15.61		19	16.04		28	b 40.93	Dec.	1	b 37.60
Mar.	3	b 39.85		26	16.08	Aug.	25	b 40.80		12	14.74
	18	14.78									

M-23a. City of Wichita. SE¼NE¼ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan.	13	c 17.74	Mar.	24	14.47	June	3	15.53	Sept.	8	15.32
	20	c 18.27		31	14.34		16	14.62		15	15.31
	27	15.28	Apr.	14	14.67	July	7	12.26	Oct.	6	15.41
Feb.	10	14.47		28	c 18.05		14	13.11		27	13.42
	17	14.32	May	12	15.08		21	c 16.85	Nov.	11	13.85
	24	14.71		19	15.15		28	c 17.58	Dec.	1	c 16.91
Mar.	3	c 17.68		26	15.22	Aug.	25	c 18.20		12	14.05
	18	14.25									

M-23b. City of Wichita. SE¼NE¼ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan.	13	c 16.03	Mar.	24	13.95	June	3	15.05	Sept.	8	14.85
	20	c 16.50		31	13.84		16	14.07		15	14.84
	27	14.81	Apr.	14	14.20	July	7	11.77	Oct.	6	15.00
Feb.	10	13.97		28	c 16.25		14	12.70		27	12.95
	17	13.89	May	12	14.53		21	c 14.96	Nov.	11	13.28
	24	14.24		19	14.67		28	c 15.60	Dec.	1	c 15.32
Mar.	3	c 15.99		26	14.70	Aug.	25	c 16.44		12	13.52
	18	13.82									

M-24. City of Wichita. SE¼SE¼ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan.	13	16.17	Mar.	24	b 34.48	June	3	b 33.17	Sept.	8	15.28
	20	15.94		31	b 32.78		16	b 33.49		15	b 35.62
	27	15.61	Apr.	14	15.60	July	7	13.73	Oct.	6	15.75
Feb.	10	15.60		28	15.43		14	13.91		27	14.58
	17	15.19	May	12	b 35.04		21	14.65	Nov.	11	b 37.10
	24	15.29		19	16.00		28	b 35.01	Dec.	1	14.67
Mar.	3	15.34		26	15.71	Aug.	25	15.53		12	b 35.64
	18	14.81									

M-24a. City of Wichita. SE¼SE¼ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan.	13	15.31	Mar.	24	d 19.53	June	3	d 19.66	Sept.	8	14.41
	20	15.02		31	d 18.94		16	d 18.59		15	d 20.30
	27	14.70	Apr.	14	14.70	July	7	12.93	Oct.	6	14.84
Feb.	10	14.73		28	14.54		14	13.11		27	13.73
	17	14.33	May	12	d 20.37		21	13.89	Nov.	11	d 19.57
	24	14.40		19	15.09		28	d 19.62	Dec.	1	13.78
Mar.	3	14.46		26	14.84	Aug.	25	14.66		12	d 19.15
	18	13.90									

a Well M-22 pumping.
b Well pumping.
c Well M-23 pumping.
d Well M-24 pumping.

Harvey County--Continued

M-24b. City of Wichita. SE¼SE¼ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	17.26	Mar. 24 a	17.77	June 3 a	18.24	Sept. 8	16.37
20	16.93	31 a	17.63	16 a	17.32	15 a	18.43
27	16.68	Apr. 14	16.80	July 7	15.49	Oct. 6	16.96
Feb. 10	16.90	28	16.61	14	15.23	27	16.14
17	16.57	May 12 a	18.70	21	15.89	Nov. 11 a	18.09
24	16.46	19	17.12	28 a	17.72	Dec. 1	15.84
Mar. 3	16.46	26	16.85	Aug. 25	16.66	12 a	17.66
18	16.15						

M-25. City of Wichita. SW¼SE¼ sec. 36, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	12.77	Mar. 24	11.84	June 3	12.93	Sept. 8 b	38.97
20 b	33.72	31	11.67	16	11.15	15	12.38
27 b	32.71	Apr. 14 b	33.17	July 7	9.20	Oct. 6 b	36.69
Feb. 10	11.73	28	12.65	14 b	36.98	27	9.73
17	11.70	May 12	12.25	21	11.45	Nov. 11 b	35.14
24 b	32.43	19 b	33.00	28	11.80	Dec. 1	11.25
Mar. 3	12.80	26 b	30.67	Aug. 25	12.80	12 b	34.56
18	11.45						

M-25a. City of Wichita. SW¼SE¼ sec. 36, T. 24 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	11.49	Mar. 24	10.65	June 3	11.82	Sept. 8 c	13.71
20 c	13.97	31	10.56	16	10.02	15	11.38
27 c	13.81	Apr. 14 c	13.05	July 7	7.94	Oct. 6 c	13.48
Feb. 10	10.61	28	11.37	14 c	11.44	27	8.72
17	10.56	May 12	11.24	21	10.09	Nov. 11 c	11.75
24 c	13.27	19 c	13.62	28	10.56	Dec. 1	10.12
Mar. 3	11.47	26 c	13.54	Aug. 25	11.39	12 c	11.96
18	10.36						

M-25b. City of Wichita. NE¼NW¼ sec. 1, T. 25 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	12.92	Mar. 24	12.17	June 3	13.30	Sept. 8 c	14.75
20 c	14.92	31	12.08	16	11.52	15	12.85
27 c	14.77	Apr. 14 c	14.02	July 7	9.52	Oct. 6 c	14.46
Feb. 10	12.12	28	12.82	14 c	12.36	27	10.21
17	12.05	May 12	12.74	21	11.48	Nov. 11 c	12.83
24 c	14.25	19 c	14.58	28	12.09	Dec. 1	11.58
Mar. 3	12.87	26 c	14.60	Aug. 25	13.80	12 c	13.00
18	11.76						

a Well M-24 pumping. b Well pumping. c M-25 pumping.

HASKELL COUNTY

By T. G. McLaughlin

The observation-well program begun during 1941 in Grant and Haskell Counties is described in the chapter on Grant County.

Well descriptions and water-level measurements

1. E. A. Davis. NE¼NW¼ sec. 13, T. 27 S., R. 33 W. Unused dug domestic and stock well, depth 113 feet. Measuring point, top of pipe, 0.9 foot above land surface, 2,905.44 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 24	109.94	Aug. 13	109.96	Oct. 13	109.93	Dec. 2	109.89
July 26	110.01	Sept.17	110.15	Nov. 1	110.28		

3. Harry B. Lyman. NE¼NE¼ sec. 31, T. 27 S., R. 33 W. Unused drilled domestic and stock well, diameter 4 inches, depth 220 feet. Measuring point, top of casing, northeast side, 1.0 foot above land surface, 2,997.88 feet above sea level. Equipped with lift pump operated by gasoline engine.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
June 26	191.72	Sept.17	191.78	Nov. 3	191.79
July 26	191.83	Oct. 13	191.82	Dec. 2	191.64

4. Dean Nelson. SE¼NE¼ sec. 29, T. 28 S., R. 32 W. Unused drilled stock well, diameter 10 inches, depth 206 feet. Measuring point, top of 6-inch pipe, east side, 0.8 foot above land surface, 2,937.93 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 27	198.45	Aug. 13	198.40	Oct. 13	198.46	Dec. 3	198.47
July 29	198.41	Sept.17	198.58	Nov. 3	198.45		

5. C. D. Jennings. NE¼NE¼ sec. 20, T. 29 S., R. 31 W. Unused drilled domestic well, diameter 4 inches, depth 173 feet. Measuring point, top of casing, east side, 0.2 foot above land surface, 2,060.40 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

June 27	161.31	Aug. 13	161.22	Oct. 13	161.32	Dec. 3	161.20
July 29	161.26	Sept.17	161.35	Nov. 3	161.36		

6. Copeland State Bank. NE¼NE¼ sec. 11, T. 29 S., R. 31 W. Unused drilled well, diameter 5 inches, depth 178 feet. Measuring point, bottom of hole in casing, east side, 0.6 foot above land surface, 2,854.35 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

June 27	156.75	Aug. 13	157.40	Oct. 13	157.28	Dec. 3	157.24
July 29	156.56	Sept.17	157.32	Nov. 3	157.22		

Haskell County--Continued

7. Etta McCoy. NW¼NW¼ sec. 2, T. 30 S., R. 32 W. Unused drilled well, diameter 6 inches, depth 196 feet. Measuring point, top of casing, east side, 1.1 feet above land surface, 2,890.29 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 28	188.60	Aug. 13	188.51	Oct. 13	188.61	Dec. 3	188.67
July 29	188.61	Sept.17	188.62	Nov. 3	188.69		

8. Connecticut Life Insurance Co. NE¼SE¼ sec. 21, T. 28 S., R. 33 W. Unused drilled well, diameter 6 inches, depth 221 feet. Measuring point, top of casing, west side, level with land surface, 2,968.83 feet above sea level. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Oct. 13, 204.14; Nov. 3, 204.70; Dec. 3, 204.20.

9. Bessie Custer. NW¼SE¼ sec. 13, T. 30 S., R. 34 W. Unused drilled domestic well, depth 219 feet. Measuring point, top of board at west side of pipe, level with land surface, 2,963.08 feet above sea level. No pump in well.

Water level, in feet below measuring point, 1941

June 30	207.68	Aug. 13	207.89	Oct. 13	207.97	Dec. 3	207.75
July 26	207.75	Sept.17	207.89	Nov. 1	207.79		

10. Eli Stoops. SE¼NW¼ sec. 33, T. 30 S., R. 34 W. Unused drilled stock well, diameter 10 inches, depth 61 feet. Measuring point, top of pipe, north side, 5.8 feet above land surface, 2,828.94 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

June 30	55.67	Aug. 13	56.32	Oct. 13	56.08	Dec. 3	54.92
July 26	56.16	Sept.17	56.53	Nov. 1	54.83		

11. L. C. Leonard. SE¼SW¼ sec. 20, T. 30 S., R. 32 W. Unused drilled well, diameter 6 inches, depth 198 feet. Measuring point, side of hole in metal cover over casing, level with land surface, 2,893.02 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
July 24	184.64	Sept.17	184.55	Nov. 3	184.61
Aug. 13	184.51	Oct. 13	184.53	Dec. 3	184.57

12. Sybol Smith. SW¼SW¼ sec. 11, T. 30 S., R. 32 W. Unused drilled stock well, diameter 6 inches, depth 198 feet. Measuring point, bottom edge of steel pipe clamp at southwest side of pipe, 0.3 foot above land surface, 2,893.02 feet above sea level. Equipped with lift pump.

Water level, in feet below measuring point, 1941

July 24	180.76	Sept.17	180.66	Nov. 3	179.70
Aug. 13	180.64	Oct. 13	180.72	Dec. 3	180.72

13. School district. NE¼NE¼ sec. 14, T. 27 S., R. 32 W. Drilled school well, diameter 6 inches, depth 97 feet. Measuring point, top of casing, north side, 0.2 foot above land surface, 2,848.25 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

July 24	86.08	Sept.17	85.85	Nov. 3	85.90
Aug. 13	85.89	Oct. 13	86.00	Dec. 2	85.91

Haskell County--Continued

14. William Dreyer. NW¼NW¼ sec. 21, T. 27 S., R. 34 W. Unused drilled stock well, diameter 6 inches, depth 167 feet. Measuring point, top of casing, south side, level with land surface, 3,019.89 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
July 31	151.92	Sept.17	152.02	Nov. 3	151.93
Aug. 13	151.92	Oct. 13	151.88	Dec. 2	151.85

15. M. H. Eubank. NW¼NW¼ sec. 33, T. 28 S., R. 34 W. Unused drilled domestic and stock well, diameter 6 inches, depth 234 feet. Measuring point, top of casing, east side, 1.2 feet above land surface, 3,015.93 feet above sea level. Equipped with lift pump and windmill.

Water level, in feet below measuring point, 1941

July 31	222.82	Sept.17	222.30	Nov. 3	222.43
Aug. 13	222.82	Oct. 13	222.60	Dec. 2	222.51

HODGEMAN COUNTY

By H. A. Waite

Highest and lowest water levels, in feet below measuring point, in 3 wells in Hodgeman County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
3	1	33.78	Aug. 2, 1941	35.77	Sept.20, 1940
4	1	26.27	July 12, 1941	28.52	Oct. 2, 1941
5	1	31.88	July 12, 1941	33.88	Oct. 29, 1940

Net changes in water level in 1941, and net changes in water level for period of record in 3 wells in Hodgeman County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
3	1.99	+0.27	+1.41
4	2.25	+ .42	+ .59
5	2.00	+ .19	+ .05

Water-level measurements

3. W. J. Fox. SW¼NW¼ sec. 12, T. 21 S., R. 22 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	34.55	May 10	34.23	Aug. 2	33.78	Nov. 13	34.47
Mar. 17	34.40	June 6	34.20	Sept. 4	34.40	Dec. 4	34.28
Apr. 26	34.25	July 12	33.98	Oct. 2	34.91		

Hodgeman County--Continued

4. William Macey. SW¼SW¼ sec. 13, T. 22 S., R. 22 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	27.86	May 10	27.49	Aug. 2	26.47	Nov. 13	27.77
Mar. 17	27.61	June 6	27.42	Sept. 4	27.27	Dec. 14	27.44
Apr. 26	27.47	July 12	26.27	Oct. 2	28.52		

5. Roy Klein. NW¼NE¼ sec. 36, T. 21 S., R. 21 W.

Water level, in feet below measuring point, 1941

Jan. 20	32.97	May 10	32.60	Aug. 2	32.01	Nov. 13	32.96
Mar. 17	32.69	June 6	32.56	Sept. 4	32.66	Dec. 4	32.78
Apr. 26	32.49	July 12	31.88	Oct. 2	32.71		

JEWELL COUNTY

By V. C. Fishel

Highest and lowest water levels, in feet above datum in 39 wells in Jewell County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
4	8	19.57	Aug. 26, 1941	5.88	Apr. 2, 1936
6	8	13.12	Oct. 27, 1941	7.77	Oct. 13, 1937
8	8	56.86	Sept. 7, 1938	8.02	Aug. 23, 1934
12	8	20.29	Sept.22, 1941	7.91	June 8, 1938
14	8	24.67	Dec. 30, 1941	8.79	Mar. 20, 1934
18	8	15.11	Mar. 26, 1936	9.51	May 2, 1935
22	8	19.27	Dec. 30, 1941	9.48	Aug. 10, 1934
25	8	13.55	Feb. 11, 1937	9.15	Mar. 2, 1935
30	8	13.84	May 24, 1934	7.20	Sept.20, 1940
34	8	100.62	Jan. 20, 1941	77.44	Aug. 19, 1940
34a	7	104.35	June 28, 1935	91.68	Mar. 2, 1935
34b	7	105.31	June 24, 1938	88.09	Mar. 2, 1935
34c	7	107.14	June 28, 1935	93.57	Sept.20, 1940
40	8	10.71	Nov. 27, 1941	a 9.45	Oct. 6, 1937
41	7	14.04	May 28, 1936	8.69	May 23, 1941
42	7	15.62	June 21, 1935	9.76	May 11, 1935
43	7	19.90	June 20, 1935	b 9.16	Mar. 28, 1935
44	7	20.91	May 2, 1940	8.43	May 9, 1935
45	7	15.53	May 21, 1936	6.64	Dec. 21, 1940
46	7	24.99	Nov. 26, 1941	8.82	Aug. 30, 1934
47	7	20.06	Nov. 26, 1941	9.48	May 9, 1935
48	7	18.47	Oct. 27, 1941	8.87	Oct. 25, 1934
49	7	30.66	June 28, 1939	3.07	Nov. 24, 1934
50	7	23.53	Oct. 27, 1941	9.97	Nov. 28, 1934 Dec. 6, 1934
51	7	101.92	Dec. 30, 1941	84.75	Sept.26, 1934
52	7	115.45	Dec. 30, 1941	94.76	May 3, 1935
53	7	107.83	Sept.13, 1935	94.89	May 3, 1935
54	7	110.10	Sept.13, 1935	93.81	Oct. 23, 1940
55	7	109.93	Sept. 6, 1935	95.28	May 3, 1935
56	7	107.19	Sept.20, 1935	95.46	May 3, 1935
57	7	104.31	Nov. 27, 1941	95.53	May 3, 1935

a Water level of 9.30 feet on Mar. 6, 1937, as given in earlier reports, is erroneous.

b Water level of 8.81 feet on Sept.20, 1934, as given in earlier reports, is erroneous.

Jewell County--Continued

Highest and lowest water levels, in feet above datum in 39 wells in Jewell County, 1941--Continued.

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
61	7	94.44	Nov. 27, 1941	83.17	Sept.27, 1935
62	7	87.46	Sept.13, 1935	83.10	May 3, 1935
63	7	95.29	Dec. 30, 1941	87.96	July 15, 1935
64	6	18.27	Oct. 27, 1941	10.42	Jan. 19, 1938
65	6	20.95	Dec. 30, 1941	4.04	Aug. 20, 1940
66	6	16.88	Dec. 29, 1941	6.06	Oct. 23, 1940
67	7	13.22	June 16, 1937 June 13, 1937	4.56	Dec. 2, 1940
69	5	13.34	Dec. 29, 1941	5.82	Aug. 19, 1940

Net changes in water level in 1941, and net changes in water level for period of record in 39 wells in Jewell County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
4	13.69	+ 5.54	+ 8.19
6	5.35	+ 3.50	- .21
8	48.84	+24.97	+33.24
12	12.38	+ 5.90	+ 3.83
14	15.88	+13.97	+15.88
18	5.60	+ .74	- 1.33
22	9.79	+ 7.62	+ 8.13
25	4.40	+ 3.60	+ 2.55
30	6.64	+ 2.30	+ .76
34	23.18	+15.05	+10.61
34a	12.67	- 1.94	+ 6.16
34b	17.22	+ 5.71	+ 9.98
34c	13.57	+ 8.11	+ 7.86
40	1.26	+ .35	+ .25
41	5.35	(a)	+ .66
42	5.86	+ 4.60	+ 3.58
43	10.74	(a)	+ .86
44	12.48	+ 1.43	+ 2.42
45	8.89	+ 4.18	+ .19
46	16.17	+ 6.73	+15.09
47	10.58	+ 6.63	+ 6.75
48	9.60	+ 6.16	+ 7.97
49	27.59	+ 6.40	+14.86
50	13.56	+ 9.86	+12.06
51	17.17	+ 5.91	+17.17
52	20.69	+ 4.91	+19.26
53	12.94	+ 9.21	+10.90
54	16.29	(a)	+ 7.48
55	14.65	(a)	+ 7.34
56	11.73	(a)	+ 3.37
57	8.78	+ 5.34	+ 8.04
61	11.27	+ 4.04	+ 6.60
62	4.36	+ .67	+ .50
63	7.33	+ 4.81	+ 6.13
64	7.85	+ 4.07	+ 4.59
65	16.91	+12.21	+ 7.30
66	10.82	+10.28	+ 2.53
67	8.66	+ 4.91	- 1.13
69	7.52	+ 4.76	+ 1.74

a No measurements made during latter part of 1941.

Jewell County--Continued

Average water levels in 12 observation wells (6, 12, 18, 22, 25, 30, 40, 41, 42, 45, 48, and 50) in Jewell County, Kansas, in 1941, in feet above datum

Date	Water level	Date	Water level	Date	Water level
Jan. 20	a 10.18	May 23	b 10.40	Sept.22	a 13.54
Feb. 20, 21	a 10.31	June 25	c 12.38	Oct. 27	a 14.38
Mar. 19	b 10.35	July 23, 24	12.25	Nov. 26, 27	a 14.42
Apr. 21	b 10.46	Aug. 26	12.68	Dec. 29, 30	d 14.47

Changes in measuring points

The original measuring points of all observation wells in Jewell County are described in Water-Supply Paper 845. Changes in measuring points that occurred during 1941 are given below. The old measuring point of well 46 was the top edge of a 2-inch slot in a square wooden cover resting on the tile casing. The new measuring point is the top edge of the tile casing on the north side. The original measuring points of wells 47 and 51 are still being used, but they have been lowered by settling in the amounts given in the following table. Wells 52, 54, 55, 57, and 61-63 are bored observation wells cased with 1½-inch galvanized iron pipe. The casings originally extended above the land surface and were attached to wooden posts for protection. The measuring point at each of these wells remains the top of the casing, but the casings have been damaged or broken by cattle, hence the measuring points are now lower by the amounts given in the table. The elevations of the measuring points were redetermined on October 1, 1941, by H. A. Waite and V. C. Fishel, and are given below.

Changes in heights of measuring points of 10 wells in Jewell County

Well	Distance below old measuring point (feet)	Height above land surface (feet)	Height above (+) or below (-) bench mark (feet)	Height above datum (feet)
46	0.20	2.0	+ 4.31	28.56
47	.25	1.2	- .56	24.52
51	.02	2.5	- 6.40	104.50
52	3.13	.0	+ 4.21	115.11
54	2.91	.6	+ .44	111.34
55	2.93	.5	+ .41	111.31
57	2.84	.1	+ 8.96	119.86
61	3.13	.05	- 5.37	105.53
62	.12	4.3	-13.46	97.44
63	.10	1.3	- .92	109.98

a Water level for well 41 interpolated in computing average.
b Water level for well 50 interpolated in computing average.
c Water level for wells 20, 30, and 41 interpolated in computing average.
d Average of water levels in 11 wells; well 41 discontinued.

Jewell County--Continued

Water-level measurements

Water level, in feet above datum, 1941

Date	4	6	8	18	25	41	45
Jan. 20	14.22	9.74	23.08	9.97	9.78	.....	6.68
Feb. 20	14.37	11.17	23.57	9.92	9.73	.....	6.75
Mar. 19	14.32	11.54	23.10	9.94	9.88	9.10	6.84
Apr. 21	14.76	11.51	23.39	10.07	10.28	9.36	7.01
May 23	15.61	11.24	23.66	10.02	9.96	8.69	7.22
June 25	18.81	12.73	49.27	10.59	.....	.....	8.94
July 23	19.01	12.32	48.87	10.73	10.27	11.09	9.17
Aug. 26	19.57	12.10	39.06	10.46	10.25	11.50	9.71
Sept.22	17.72	12.34	39.87	10.61	12.18	(a)	8.95
Oct. 27	19.63	13.12	46.14	10.47	13.01	.....	9.76
Nov. 26	19.13	12.34	47.10	10.61	13.17	.....	10.28
Dec. 29	18.99	12.22	46.15	10.58	12.93	.....	10.82

Water level, in feet above datum, 1941

Date	12	14	22	30	40	42	43	44
Jan. 20	9.79	10.71	11.67	8.93	9.97	9.95	11.15	16.57
Feb. 21	9.65	10.67	11.87	8.96	10.14	9.90	11.10	16.77
Mar. 19	10.09	11.16	12.36	9.29	10.07	10.02	12.74	16.05
Apr. 21	11.55	12.40	12.37	9.41	9.80	10.05	12.81	16.94
May 23	12.61	12.87	12.35	9.34	9.98	9.92	12.58	16.20
June 25	14.14	14.22	13.91	.....	10.24	14.87	(a)	16.67
July 24	14.95	14.76	13.69	10.39	10.46	b 13.25	.....	16.00
Aug. 26	15.07	17.06	13.19	8.33	10.64	12.58	.....	15.18
Sept.22	20.29	17.59	13.57	9.76	10.70	14.55	.....	15.10
Oct. 27	18.46	18.81	18.28	10.17	10.62	14.97	.....	16.38
Nov. 27	17.60	20.98	19.25	10.96	10.71	14.87	.....	17.65
Dec. 29	c 16.39	c 24.67	c 19.27	10.84	10.51	14.57	.....	17.88

Water level, in feet above datum, 1941

Date	34	34A	34B	34C	Pond staff gage	46
Jan. 20	80.31	100.62	93.79	94.38	114.70	18.40
Feb. 20	82.25	98.73	94.37	94.23	114.70	18.72
Mar. 19	84.70	98.79	96.26	94.56	118.60	20.45
Apr. 21	89.71	99.66	99.84	97.48	117.50	20.14
May 23	91.52	98.81	101.26	99.50	116.80	20.35
June 25	96.24	100.33	100.25	101.19	118.30	22.97
July 23	96.12	99.64	100.67	100.63	117.90	22.14
Aug. 26	93.29	98.66	99.94	99.34	117.30	20.10
Sept.22	95.00	99.01	98.15	102.25	117.90	21.07
Oct. 27	94.57	98.95	98.40	102.16	117.70	24.40
Nov. 26	95.82	98.76	98.91	102.59	118.10	24.99
Dec. 29	95.37	98.80	99.24	102.44	118.20	24.88

Water level, in feet above datum, 1941

Date	47	50	51	61	62	63	65[d]
Jan. 20	11.38	13.90	96.13	88.34	84.39	90.56	8.49
Feb. 21	11.32	13.91	96.31	88.43	83.91	90.85	8.47
Mar. 19	13.58	(e)	101.19	87.64	83.95	91.07	9.05
Apr. 21	12.71	(e)	100.89	87.89	83.86	91.84	9.12
May 23	12.36	(e)	97.09	86.72	83.67	92.06	9.51
June 25	14.09	18.28	96.31	88.26	85.37	92.52	13.15
July 24	14.20	16.71	97.05	87.12	85.24	92.69	12.19
Aug. 26	13.41	23.50	96.61	87.24	85.26	92.24	11.57
Sept.22	15.86	21.07	97.26	87.41	85.37	92.24	11.85
Oct. 27	19.66	23.53	101.43	88.68	85.40	93.57	14.45
Nov. 27	f 20.06	23.11	101.82	94.44	85.36	95.11	17.63
Dec. 30	18.09	22.89	101.92	91.02	85.52	95.29	20.95

a Measurements discontinued.
b Measurement made on July 23.
c Measurement made on Dec. 30.
d Well used throughout 1941.
e Well dry.
f Measurement made on Nov. 26.

Jewell County--Continued

Water level, in feet above datum, 1941

Date	52	53	54	Pond staff gage	55	56	57
Jan. 20	97.30	97.41	98.22	103.70	99.42	99.72	98.72
Feb. 21	97.94	98.07	98.56	103.60	99.40	99.75	98.70
Mar. 19	97.70	97.69	98.64	104.50	98.51	(a)	99.44
Apr. 21	98.73	98.59	99.49	104.50	99.59	.....	100.49
May 23	97.02	98.21	99.21	104.20	99.90	.....	98.94
June 25	99.35	101.80	104.73	109.70	104.73	.....	100.01
July 24	100.47	102.73	104.47	108.90	103.84	.....	101.05
Aug. 26	101.24	102.34	103.58	108.20	.....	.....	101.18
Sept.22	102.75	106.27	(b)	111.60	(b)	.....	102.14
Oct. 27	114.73	106.72	(b)	111.30	(b)	.....	103.98
Nov. 27	115.21	106.81	(b)	111.20	(b)	.....	104.31
Dec. 30	115.45	106.71	(b)	111.10	(b)	.....	104.07

Water level, in feet above datum, 1941

Date	48	49	64	66	67c/	69c/
Jan. 20	12.12	22.71	.....	6.42	5.88	8.51
Feb. 20	12.33	22.57	.....	6.40	5.90	8.53
Mar. 19	12.85	23.02	d 13.84	6.58	5.93	9.21
Apr. 21	12.87	23.36	14.38	6.79	6.18	8.71
May 23	13.10	24.49	14.14	6.72	6.44	8.84
June 25	14.05	28.79	17.49	8.15	10.60	12.73
July 23	14.02	29.64	16.61	8.16	10.29	11.71
Aug. 26	14.87	28.80	15.38	7.91	8.99	10.41
Sept.22	16.55	28.21	17.49	14.02	7.69	11.71
Oct. 27	18.47	28.66	18.27	14.93	9.15	12.68
Nov. 26	18.32	28.75	17.84	16.44	10.51	13.21
Dec. 29	18.18	28.61	17.91	16.88	10.37	13.34

KEARNY COUNTY

By T. G. McLaughlin

Highest and lowest water levels, in feet below measuring point, in 19 wells in Kearny County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	2	8.67	Dec. 6, 1941	12.81	July 20, 1941
2	2	56.05	Nov. 10, 1941	59.94	Sept.20, 1940
3	2	92.34	Dec. 20, 1939	95.43	Nov. 10, 1941
4	2	106.81	Jan. 28, 1940	107.04	Dec. 19, 1941
6	2	154.55	Dec. 20, 1939 June 22, 1940	155.85	Apr. 23, 1941
7	2	51.24	Nov. 15, 1941	53.87	Oct. 16, 1939
11	2	14.29	Oct. 28, 1941	15.87	Mar. 15, 1941
12	2	10.53	Dec. 6, 1941	15.46	Nov. 21, 1940
13	2	4.36	July 3, 1941	8.53	Dec. 20, 1939
14	2	226.98	Oct. 25, 1939	227.98	Apr. 23, 1941
15	2	71.05	Aug. 22, 1940	71.87	Sept.20, 1940
16	2	45.75	Oct. 25, 1939	48.11	July 3, 1941
17	2	89.97	Aug. 22, 1940	91.99	May 23, 1940
18	2	72.17	Mar. 25, 1940	73.11	Oct. 18, 1941

a a Pipe broken off; measurements discontinued.
b b Well surrounded by water.
c Well used throughout 1941.
d Well unsealed; measurements resumed.

Kearny County--Continued

Highest and lowest water levels, in feet below measuring point, in 19 wells in Kearny County, 1941--Continued.

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
19	2	130.58	Dec. 23, 1940	131.30	Nov. 23, 1940
22	2	182.85	June 5, 1941	183.39	Sept. 3, 1941
23	2	174.63	Oct. 24, 1939	175.20	July 17, 1941
26	2	86.30	Oct. 24, 1940	86.95	May 6, 1941
28	2	121.93	May 5, 1941	124.35	Feb. 19, 1940 Oct. 22, 1940

Net changes in water level in 1941, and net changes in water level for the period of record in 19 wells in Kearny County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	4.20	+3.95	+2.84
2	3.89	+2.31	+2.18
3	3.09	- .27	+ .53
4	.23	- .03	- .07
6	1.30	- .09	+ .08
7	2.63	+1.44	+2.59
11	1.58	+1.50	+1.31
12	4.93	+2.76	+4.09
13	4.17	+ .66	+3.12
14	1.00	- .27	- .73
15	.82	+ .26	+ .45
16	2.36	+ .04	-1.92
17	2.02	- .57	- .23
18	.94	- .85	- .79
19	.72	- .01	- .05
22	.54	- .09	- .15
23	.57	- .10	- .33
26	.65	+ .36	- .19
28	2.42	- .04	+2.22

Water-level measurements

1. R. T. Beatty. NW¼NE¼ sec. 34, T. 24 S., R. 36 W. Measuring point, 3,000.94 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	11.62	May 6	10.60	Aug. 24	10.28	Nov. 9	8.85
Mar. 15	11.52	June 7	9.72	Sept.22	10.16	Dec. 6	8.67
Apr. 23	11.28	July 17	8.89	Oct. 28	9.19		

2. C. E. Worthen. SE¼SE¼ sec. 16, T. 24 S., R. 36 W. Measuring point, 3,064.49 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	58.81	May 6	58.67	Aug. 8	57.58	Nov. 10	56.05
Mar. 15	58.74	June 4	57.79	Sept. 3	56.33	Dec. 19	56.50
Apr. 23	58.89	July 3	57.66	Oct. 28	56.78		

3. F. G. Worthen. SW¼NW¼ sec. 10, T. 23 S., R. 36 W. Measuring point, 3,126.52 feet above sea level.

Kearny County--Continued

3.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	93.83	May 5	93.84	Oct. 18	93.95	Dec. 19	94.10
Apr. 23	94.26	June 4	93.84	Nov. 10	95.43		

4. C. W. Walker. NW¼SW¼ sec. 11, T. 21 S., R. 37 W. Measuring point, 3,299.18 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	107.01	June 4	106.99	Sept. 3	106.97	Nov. 10	106.96
Apr. 23	107.00	July 3	106.99	Oct. 18	106.98	Dec. 19	107.04
May 5	106.98	Aug. 8	106.97				

6. Meta Kettler. NW¼NW¼ sec. 26, T. 24 S., R. 37 W. Measuring point, 3,222.35 feet above sea level.

Water level, in feet below measuring point, 1941

Jan. 29	154.78	May 6	154.83	Aug. 8	154.98	Nov. 10	154.80
Mar. 15	154.67	June 4	154.97	Sept. 3	154.86	Dec. 31	154.87
Apr. 23	155.85	July 3	155.08	Oct. 18	155.05		

7. C. H. Browne. NW¼SW¼ sec. 8, T. 25 S., R. 37 W. Measuring point, 3,117.11 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 15	52.72	June 4	51.74	Sept.13	51.83	Nov. 15	51.24
Apr. 23	53.67	July 3	51.89	Oct. 18	51.49	Dec. 20	51.28
May 6	52.13	Aug. 8	51.85				

9. R. Bentrup. NW¼NW¼ sec. 2, T. 24 S., R. 35 W. Measurements discontinued in January 1941.

10. Phoenix Joint Stock Land Bank. NE¼NE¼ sec. 13, T. 24 S., R. 35 W. Measurements discontinued in January 1941.

11. P. J. Fichter. SW¼SW¼ sec. 11, T. 25 S., R. 36 W. Measuring point, 3,005.89 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Mar. 15	15.87	May 6	15.85	Nov. 9	14.32
Apr. 23	15.81	Oct. 28	14.29	Dec. 6	14.37

12. J. E. Beymer. SE¼SW¼ sec. 22, T. 24 S., R. 35 W. Measuring point, 2,954.84 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	13.29	Oct. 18	11.20	Dec. 6	10.53
Apr. 24	14.05	Nov. 2	10.93		

13. D. S. Nicholson. NW¼NW¼ sec. 15, T. 25 S., R. 37 W. Measuring point, 3,049.47 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 15	5.70	June 4	4.41	Sept.13	5.82	Nov. 15	4.85
Apr. 23	5.44	July 3	4.36	Oct. 18	5.46	Dec. 20	5.04
May 6	4.57	Aug. 8	5.21				

14. W. H. Ploeger. SW¼SW¼ sec. 32, T. 22 S., R. 38 W.

Water level, in feet below measuring point, 1941

Mar. 15	227.58	June 5	227.73	Aug. 8	227.93	Nov. 10	227.81
Apr. 23	227.98	July 3	227.95	Oct. 18	227.84	Dec. 20	227.85
May 5	227.57						

Kearny County--Continued

15. Joseph McNellis. SW¼SW¼ sec. 36, T. 22 S., R. 35 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	71.54	June 4	71.64	Sept. 3	71.40	Nov. 10	71.32
Apr. 24	71.64	July 3	71.71	Oct. 18	71.33	Dec. 19	71.28
May 5	71.59	Aug. 8	71.54				

16. C. B. Campbell. SE¼SE¼ sec. 15, T. 23 S., R. 35 W.

Water level, in feet below measuring point, 1941

Mar. 19	47.74	June 4	47.80	Sept. 3	47.80	Nov. 10	47.75
Apr. 24	47.96	July 3	48.11	Oct. 18	47.72	Dec. 19	47.70
May 5	47.96	Aug. 8	47.84				

17. A. G. Campbell. NE¼NW¼ sec. 15, T. 21 S., R. 35 W. Measuring point, 3,129.08 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	91.14	July 3	91.71	Sept. 3	91.71	Nov. 10	91.67
Apr. 24	91.44	Aug. 8	91.72	Oct. 18	91.69	Dec. 19	91.71
May 5	91.50						

18. G. H. Cook. SW¼SE¼ sec. 28, T. 24 S., R. 38 W. Measuring point, 3,235.70 feet above sea level. Water levels, in feet below measuring point, 1941: Mar. 15, 72.24; Oct. 18, 73.11; Nov. 10, 73.10; Dec. 31, 73.09.

19. E. M. Beymer. NE¼NW¼ sec. 8, T. 26 S., R. 38 W. Measuring point, 3,247.40 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 15	130.91	June 7	130.81	Sept.22	130.81	Nov. 11	130.98
Apr. 23	131.25	July 17	131.08	Oct. 28	130.76	Dec. 31	130.92
May 6	130.80	Aug. 24	130.79				

21. B. P. Aubun. SE¼SE¼ sec. 19, T. 21 S., R. 38 W. Measurements discontinued in January 1941.

22. J. A. Denslow. NE¼SE¼ sec. 6, T. 22 S., R. 38 W.

Water level, in feet below measuring point, 1941

Mar. 15	182.86	June 5	182.85	Sept. 3	183.39	Nov. 10	182.94
Apr. 23	182.99	July 3	183.01	Oct. 18	182.92	Dec. 31	182.95
May 5	182.92	Aug. 8	182.98				

23. James Coghill. NW¼NW¼ sec. 18, T. 26 S., R. 37 W. Measuring point, 3,203.55 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 15	174.89	June 7	174.93	Sept.22	174.97	Nov. 9	175.16
Apr. 23	175.23	July 17	175.20	Oct. 28	174.95	Dec. 31	174.99
May 6	175.02	Aug. 24	174.99				

25. Owner unknown. NW¼NW¼ sec. 5, T. 27 S., R. 36 W. Measurements discontinued in January 1941.

26. Anna Davidson. SE¼SE¼ sec. 22, T. 26 S., R. 37 W. Measuring point, 3,092.53 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 15	86.85	June 7	86.66	Sept.22	86.53	Nov. 9	86.54
Apr. 23	86.88	July 17	86.57	Oct. 28	86.48	Dec. 31	86.49
May 6	86.95	Aug. 24	86.51				

28. Harry Tate. NW¼NW¼ sec. 26, T. 22 S., R. 37 W. Measuring point, 3,231.00 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 19	122.01	June 4	122.10	Sept. 3	121.99	Nov. 10	121.94
Apr. 23	121.98	July 3	122.01	Oct. 18	121.96	Dec. 19	122.05
May 5	121.93	Aug. 8	121.98				

KIOWA COUNTY

By B. F. Latta

Highest and lowest water levels, in feet below measuring point, in 5 wells in Kiowa County, 1941.

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
4	1	76.45	Dec. 27, 1940	76.78	Oct. 7, 1941
5	1	41.23	Oct. 23, 1940	a 41.57	July 28, 1941 Nov. 20, 1941
7	1	34.07	Nov. 20, 1941	34.51	Mar. 22, 1941
8	1	26.53	Nov. 20, 1941	27.62	Apr. 28, 1941
10	1	105.73	Nov. 4, 1941	107.27	Oct. 24, 1940

Net changes in water level in 1941, and net changes in water level for the period of record in 5 wells in Kiowa County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
4	0.33	-0.18	-0.11
5	.34	- .19	- .28
7	.44	b + .31	b + .18
8	1.09	+ .68	+ .33
10	1.54	+1.19	+1.46

Water-level measurements

2. D. McLaughlin. SE¼SE¼ sec. 20, T. 29 S., R. 20 W. Unused bored and driven stock well, diameter 1½ inches, depth 158 feet. Measuring point, top of 1½-inch galvanized-iron pipe, 1.0 foot above land surface. No pump on well.

Water level, in feet below measuring point, 1940-41

Date	Water level	Date	Water level	Date	Water level
Oct. 18, 1940	145.84	Sept.12, 1941	145.83	Nov. 4, 1941	145.77
Aug. 4, 1941	145.53	Oct. 7	145.79	Dec. 22	145.73
27	145.73				

3. E. M. Pyle. NW¼NE¼ sec. 8, T. 29 S., R. 16 W. Well plugged; measurements discontinued in January 1941.

4. H. E. Davis. SE¼NE¼ sec. 4, T. 28 S., R. 16 W. Measuring point, 2,116.9 feet above sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 22	76.56	June 11	76.70	Sept.12	76.68	Nov. 5	76.56
Apr. 28	76.59	July 28	76.67	Oct. 7	76.78	Dec. 22	76.63
May 26	76.68	Aug. 27	76.67				

5. L. W. Grimes. NW¼NW¼ sec. 34, T. 27 S., R. 17 W. Measuring point, 2,132.9 feet above sea level.

a Measurement of 44.00 feet on Nov. 29, 1940, not included.
b To Nov. 20, 1941.

Kiowa County--Continued

5.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 22	41.41	June 11	41.49	Sept.12	41.56	Nov. 20	41.57
Apr. 28	41.45	July 28	41.57	Oct. 7	41.53	Dec. 22	41.51
May 26	41.48	Aug. 27	41.52				

6. Mrs. J. A. Crowe. NW¼SW¼ sec. 16, T. 28 S., R. 18 W. Gasoline-powered pump installed on well by owner; water-level measurements discontinued in January 1941.

7. A. C. Weaver. SW¼NW¼ sec. 23, T. 27 S., R. 18 W. Measuring point, 2,177.0 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 22	34.51	May 26	34.41	July 28	34.23	Oct. 7	34.14
Apr. 28	34.43	June 11	34.39	Aug. 27	34.14	Nov. 20	34.07

8. E. E. Miller. SW¼SE¼ sec. 18, T. 27 S., R. 18 W. Measuring point, 2,192.4 feet above sea level.

Water level, in feet below measuring point, 1941

Mar. 22	27.54	May 26	27.45	Aug. 27	26.75	Nov. 20	26.53
Apr. 28	27.62	July 21	26.67	Sept.12	26.95	Dec. 22	26.63

10. J. E. Ely. SW¼NW¼ sec. 23, T. 30 S., R. 18 W.

Water level, in feet below measuring point, 1941

Mar. 22	106.55	June 11	106.12	Sept.12	106.09	Nov. 4	105.73
Apr. 28	106.42	July 28	106.15	Oct. 7	106.47	Dec. 22	105.81
May 26	106.06	Sept. 2	106.19				

McPHERSON COUNTY

By C. C. Williams and G. H. von Hein

Highest and lowest water levels, in feet below measuring point, in 10 wells in McPherson County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
19	3	69.40	Aug. 11, 1939	71.37	Oct. 13, 1941
					Dec. 17, 1941
243	4	82.49	Sept. 2, 1938	83.49	Oct. 28, 1937
249	4	30.46	Dec. 17, 1941	a 40.13	Apr. 2, 1940
250	4	41.38	Oct. 3, 1940	a 46.67	July 29, 1938
252	4	5.58	June 3, 1938	12.80	Oct. 3, 1940
260	4	23.14	Dec. 17, 1941	29.35	Nov. 4, 1937
					Dec. 4, 1937
262	4	23.72	Dec. 17, 1941	b 41.35	Nov. 2, 1938
309	4	29.38	Dec. 17, 1941	40.29	Mar. 26, 1938
310	4	9.16	Dec. 17, 1941	19.39	Nov. 4, 1937
311	4	10.14	July 4, 1938	14.26	Dec. 31, 1939

a Measured after well had been pumped.
b Measured while pumping.

McPherson County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 10 wells in McPherson County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
19	1.97	-0.72	-1.77
243	1.00	- .19	- .37
249	9.67	+9.21	+7.23
250	5.29	- .63	+ .92
252	7.22	a +2.95	+2.34
260	6.21	+5.93	+6.21
262	17.63	+9.91	+7.36
309	10.91	+6.98	+6.31
310	10.23	+ .83	+10.23
311	4.12	+1.57	+2.36

Water-level measurements

19. Scott Montgomery. NW¼NE¼ sec. 29, T. 19 S., R. 3 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	70.65	Apr. 1	70.57	June 4	70.91	Oct. 13	71.37
Feb. 4	70.58	May 2	70.79	July 8	71.02	Dec. 17	71.37
Mar. 4	70.56						

243. Emma Bergstrom. SE¼SW¼SE¼ sec. 5, T. 19 S., R. 3 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 3	82.93	July 8	83.08	Dec. 17	83.12
Apr. 1	83.00	Oct. 13	83.06		

249. Prudential Life Insurance Co. SE cor. sec. 5, T. 18 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 3	39.67	July 8	33.49	Dec. 17	30.46
Apr. 1	37.44	Oct. 13	32.84		

250. John Weed. NE¼NE¼SE¼ sec. 30, T. 19 S., R. 4 W.

Water level, in feet below measuring point, 1941

Jan. 3	41.95	July 8	43.57	Dec. 17	42.58
Apr. 1	41.94	Oct. 13	43.86		

252. David Mills. SE cor. sec. 14, T. 19 S., R. 5 W. Measurements discontinued, July 8, 1941. Water levels, in feet below measuring point, 1941: Jan. 3, 11.56; Apr. 1, 10.07; July 8, 8.61.

260. John Rawson (former owner, C. Welch). SE¼SE¼ sec. 33, T. 17 S., R. 4 W.

Water level, in feet below measuring point, 1941

Jan. 3	29.07	July 8	26.39	Dec. 17	23.14
Apr. 1	28.98	Oct. 13	24.63		

262. P. A. Olsen. NE¼NW¼NE¼ sec. 1, T. 18 S., R. 5 W.

Water level, in feet below measuring point, 1941

Jan. 3	33.63	July 8	37.10	Dec. 17	23.72
Apr. 1	32.40	Oct. 13	32.00		

a Through July 8, 1941.

McPherson County--Continued

309. Mrs. Ida Tuxhorn. SW¼SW¼ sec. 9, T. 21 S., R. 4 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	36.36	Feb. 21	36.51	Apr. 18	35.90	June 6	35.05
10	36.37	28	36.49	25	36.41	13	34.89
17	36.33	Mar. 17	36.54	May 2	35.71	24	34.40
24	36.37	21	36.55	9	35.80	July 7	34.14
31	36.41	28	36.39	16	35.53	Oct. 13	31.77
Feb. 7	36.25	Apr. 4	36.09	23	35.66	Dec. 17	29.38
14	36.40	11	36.08	29	35.32		

310. City of Moundridge. SW¼NE¼SW¼ sec. 23, T. 21 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 3	9.99	Apr. 1	9.68	June 4	9.81	Oct. 13	9.44
Feb. 4	9.84	May 2	9.70	July 8	9.59	Dec. 17	9.16
Mar. 4	9.81						

311. City of Moundridge. SW¼SE¼SW¼ sec. 33, T. 21 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 3	12.61	Apr. 1	11.24	June 4	11.74	Oct. 13	12.15
Feb. 4	12.07	May 2	11.22	July 8	11.10	Dec. 17	11.04
Mar. 4	11.81						

MEADE COUNTY

By J. C. Frye

Highest and lowest water levels, in feet below measuring point, in 26 wells in Meade County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
2	2.5	20.38	Dec. 3, 1941	22.18	Sept.29, 1939
3	2.5	29.27	July 15, 1939	30.68	Aug. 17, 1940
10	2.5	14.10	June 10, 1941	19.91	Aug. 3, 1939
11	2.5	10.40	July 17, 1939	14.56	Sept.20, 1940
16	2.5	13.23	June 10, 1941	16.90	Oct. 28, 1940
23	2.5	10.38	Aug. 6, 1941	12.32	Oct. 29, 1940
					Jan. 21, 1941
27	2.5	19.99	Dec. 21, 1940	20.54	Oct. 29, 1939
33	2.5	38.14	Feb. 14, 1940	38.48	May 16, 1941
			Dec. 3, 1941		
34	2.5	147.35	Feb. 14, 1940	151.19	Oct. 29, 1939
36	2.5	157.07	Jan. 21, 1941	160.46	Sept.20, 1940
37	2.5	34.31	July 20, 1939	41.72	Sept.29, 1939
40	2.5	130.40	Feb. 14, 1940	133.11	Sept.14, 1940
41	2.5	157.83	Sept.30, 1939	158.32	Oct. 8, 1941
42	2.5	133.13	Feb. 14, 1940	133.72	Sept. 9, 1941
45	2.5	3.63	Oct. 9, 1941	4.90	Aug. 31, 1939
47	2.5	43.10	Jan. 21, 1941	44.39	July 22, 1939
55	2.5	85.47	Sept.30, 1939	86.52	Sept.20, 1940
57	2.5	169.94	Aug. 2, 1939	172.97	Sept. 9, 1941
61	2.5	60.95	Sept. 9, 1941	61.37	May 17, 1940
62	2.5	25.66	Dec. 3, 1941	26.66	Aug. 17, 1940

Meade County--Continued

Highest and lowest water levels, in feet below measuring point, in 26 wells in Meade County, 1941--Continued.

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
73	2.5	33.18	Nov. 9, 1939	34.55	Aug. 19, 1940
76	2.5	27.70	Sept. 1, 1939	38.20	May 17, 1941
77	2.5	65.31	June 20, 1940	66.03	Sept.20, 1940
88	2.5	42.36	June 20, 1940	44.71	Sept.20, 1940
101	2.5	97.38	Nov. 9, 1939	88.47	Nov. 14, 1940
234	2.5	14.01	Nov. 1, 1941	15.72	Aug. 31, 1939

Net changes in water level in 1941, and net changes in water level for the period of record in 26 wells in Meade County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
2	1.80	+0.88	+1.02
3	1.41	+ .49	- .22
10	5.81	+ .44	+4.50
11	4.16	+ .71	- .59
16	3.67	+1.96	-1.22
23	1.94	+1.65	+ .84
27	.55	+ .22	+ .19
33	.34	+ .17	+ .15
34	3.84	- .07	+ .05
36	2.39	-2.57	- .83
37	7.41	+ .30	- .75
40	2.71	- .19	+ .15
41	.49	- .01	- .13
42	.59	- .25	- .10
45	1.04	+ .70	+ .33
47	1.29	- .56	+ .73
55	1.05	+ .18	+ .10
57	3.03	- .08	-2.70
61	.42	+ .15	+ .20
62	1.00	+ .49	+ .95
73	1.37	+ .39	+ .29
76	9.50	+3.67	-2.97
77	.72	- .18	- .18
88	2.33	+ .73	+1.76
101	1.09	- .60	- .25
234	1.71	+ .64	+1.63

Water-level measurements

2. William A. Ellson. NW¼SW¼ sec. 5, T. 30 S., R. 26 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	21.26	May 16	21.29	Aug. 7	20.87	Nov. 7	20.48
Mar. 17	21.18	June 11	21.13	Sept.10	20.67	Dec. 3	20.38
Apr. 21	21.30	July 15	20.98	Oct. 9	20.66		

3. H. L. Salmon. NW¼SE¼ sec. 4, T. 30 S., R. 27 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	29.98	May 16	29.90	Aug. 7	29.61	Nov. 7	29.67
Mar. 18	29.98	June 11	29.85	Sept.10	29.69	Dec. 3	29.49
Apr. 22	30.05	July 15	29.71	Oct. 9	29.69		

Meade County--Continued

10. Fred Borchers. SW¼NW¼ sec. 29, T. 33 S., R. 28 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	15.09	May 17	14.77	Aug. 6	14.81	Nov. 6	14.18
Mar. 14	14.84	June 10	14.10	Sept. 9	15.18	Dec. 3	14.65
Apr. 21	14.84	July 16	14.74	Oct. 8	15.09		

11. J. E. Lutz. NW¼SW¼ sec. 4, T. 30 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 21	12.70	May 16	12.82	Aug. 6	12.52	Nov. 7	12.14
Mar. 17	12.68	June 11	12.60	Sept.10	12.39	Dec. 3	11.99
Apr. 21	12.73	July 15	12.55	Oct. 9	12.35		

16. B. A. Cordes. SW¼SW¼ sec. 25, T. 33 S., R. 29 W.

Water level, in feet below measuring point, 1941

Mar. 14	16.57	June 10	13.23	Sept. 9	14.20	Nov. 6	14.58
Apr. 21	16.47	July 16	13.99	Oct. 8	14.64	Dec. 3	14.61
May 17	16.49	Aug. 6	13.42				

23. L. L. Ming. SE¼SE¼ sec. 18, T. 30 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 21	12.32	May 16	11.08	Aug. 6	10.38	Nov. 7	10.63
Mar. 17	11.25	June 11	10.57	Sept.10	10.86	Dec. 3	10.67
Apr. 21	11.17	July 15	10.56	Oct. 9	10.80		

27. Ira C. Rees. SW¼NW¼ sec. 9, T. 30 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 21	20.49	May 16	20.48	Aug. 6	20.40	Oct. 9	20.31
Mar. 17	20.46	June 11	20.51	Sept.10	20.38	Nov. 7	20.27
Apr. 21	20.45	July 15	20.47				

33. H. L. Woodruff. NE¼NW¼ sec. 34, T. 33 S., R. 26 W.

Water level, in feet below measuring point, 1941

Mar. 18	38.31	July 15	38.25	Sept. 9	38.44	Nov. 6	38.39
May 16	38.48	Aug. 6	38.19	Oct. 8	38.41	Dec. 3	38.14
June 10	38.32						

34. District School. SE¼SE¼ sec. 17, T. 33 S., R. 27 W.

Water level, in feet below measuring point, 1941

Jan. 21	147.36	May 16	147.81	Aug. 6	147.65	Nov. 6	147.63
Mar. 18	147.70	June 10	147.62	Sept. 9	147.96	Dec. 3	147.43
Apr. 21	148.01	July 15	147.71	Oct. 8	147.66		

36. Tony Steinke. NW¼NE¼ sec. 24, T. 32 S., R. 27 W.

Water level, in feet below measuring point, 1941

Jan. 21	157.07	Apr. 21	159.12	Oct. 8	160.05	Dec. 3	159.64
Mar. 18	158.27	May 16	160.18	Nov. 6	160.19		

37. J. H. Clay. SE¼SE¼ sec. 11, T. 33 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 21	35.36	Apr. 21	35.13	June 10	34.82	Dec. 6	35.06
Mar. 18	35.10	May 16	34.94	July 15	34.93		

40. J. A. and D. F. Collingwood. SE¼SE¼ sec. 30, T. 31 S., R. 29 W.

Water level, in feet below measuring point, 1941

Jan. 21	130.45	May 17	130.82	Aug. 6	130.70	Nov. 6	130.80
Mar. 18	130.63	June 10	130.82	Sept. 9	131.04	Dec. 3	130.64
Apr. 22	130.77	July 16	130.73	Oct. 8	130.85		

Meade County--Continued

41. D. L. Shranner. NW¼NW¼ sec. 20, T. 30 S., R. 30 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	158.24	May 17	158.18	Sept. 9	158.28	Nov. 6	158.19
Mar. 18	158.22	June 10	158.24	Oct. 8	158.32	Dec. 3	158.25
Apr. 22	158.25	July 16	158.15				

42. H. Jenkinson. SW¼SW¼ sec. 23, T. 30 S., R. 29 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	133.28	May 17	133.48	Aug. 6	133.48	Nov. 6	133.45
Mar. 18	133.38	June 10	133.55	Sept. 9	133.72	Dec. 3	133.53
Apr. 22	133.45	July 16	133.52	Oct. 8	133.52		

45. Joseph Rocke. SE¼NE¼ sec. 31, T. 30 S., R. 27 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	4.54	May 16	4.24	Aug. 7	3.97	Nov. 7	3.87
Mar. 17	4.45	June 11	4.13	Sept.10	3.84	Dec. 3	3.84
Apr. 22	4.34	July 15	3.85	Oct. 9	3.63		

47. C. A. Horner. SE¼SE¼ sec. 18, T. 30 S., R. 27 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	43.10	July 15	44.00	Oct. 9	43.73	Dec. 3	43.66
June 11	43.89	Sept.10	43.80	Nov. 7	43.69		

55. C. W. Farris. SE¼SE¼ sec. 15, T. 30 S., R. 28 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	86.45	May 17	86.50	Aug. 9	86.32	Oct. 6	86.26
Mar. 17	86.46	June 16	86.44	Sept. 8	86.28	Dec. 3	86.27
Apr. 22	86.45	July 6	86.36				

57. Plains State Bank. SW¼SE¼ sec. 18, T. 33 S., R. 30 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	172.60	May 17	172.60	Aug. 6	172.54	Nov. 6	172.69
Mar. 14	172.40	June 10	172.73	Sept. 9	172.97	Dec. 3	172.68
Apr. 21	172.87	July 16	172.69	Oct. 8	172.72		

61. John Meyer. NW¼NW¼ sec. 26, T. 31 S., R. 27 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	61.11	May 16	61.05	Aug. 6	61.02	Nov. 6	61.03
Mar. 17	61.07	June 10	61.02	Sept. 9	60.95	Dec. 3	60.96
Apr. 21	61.08	July 15	61.06	Oct. 8	60.97		

62. H. L. Salmon. NE¼NE¼ sec. 7, T. 31 S., R. 26 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	26.15	May 16	26.27	Aug. 6	26.12	Nov. 6	25.87
Mar. 17	26.17	June 10	26.19	Sept. 9	26.03	Dec. 3	25.66
Apr. 21	26.20	July 15	26.28	Oct. 8	26.19		

73. A. M. and O. M. Eubank. SE¼NE¼ sec. 11, T. 34 S., R. 28 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	33.59	Apr. 21	34.08	July 16	33.89	Nov. 6	33.42
Mar. 14	33.53	June 10	33.94	Oct. 9	33.48	Dec. 3	33.20

76. R. L. L. Barnstable. NE¼NE¼ sec. 3, T. 34 S., R. 28 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 21	38.11	July 16	36.48	Sept. 9	36.95	Nov. 6	37.12
May 17	38.20	Aug. 6	36.25	Oct. 8	37.49	Dec. 3	34.44
June 10	37.11						

Meade County--Continued

77. J. W. Wood. SE¼NE¼ sec. 4, T. 32 S., R. 28 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	65.72	May 16	65.69	Aug. 7	65.87	Nov. 6	65.95
Mar. 18	65.71	June 11	65.71	Sept. 9	65.89	Dec. 3	65.90
Apr. 22	65.82	July 15	65.75	Oct. 9	65.81		

88. H. V. Gulick. SE¼SE¼ sec. 14, T. 31 S., R. 28 W.

Water level, in feet below measuring point, 1941

Jan. 21	43.59	July 15	43.07	Sept.10	43.79	Nov. 7	42.64
Mar. 18	43.14	Aug. 7	43.38	Oct. 9	43.62	Dec. 3	42.68
May 16	42.98						

101. West and Higenbotham. NE¼NE¼ sec. 29, T. 34 S., R. 26 W.

Water level, in feet below measuring point, 1941

Jan. 21	87.57	May 16	88.10	Aug. 6	87.96	Nov. 6	88.12
Mar. 18	87.97	June 10	87.88	Sept. 9	88.26	Dec. 3	88.17
Apr. 21	88.29	July 15	88.03	Oct. 8	88.16		

234. Christopher Sobba. NW¼NE¼ sec. 23, T. 30 S., R. 27 W.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.80	14.82	14.83	14.84	14.83	14.68	14.58	14.69	14.27	14.17	14.01	14.16
2	14.80	14.80	14.80	14.83	14.81	14.67	14.58	14.70	14.24	14.17	14.02	14.15
3	14.78	14.81	14.87	14.85	14.82	14.67	14.58	14.71	14.22	14.18	14.05	14.12
4	14.79	14.81	14.88	14.87	14.81	14.68	14.58	14.71	14.23	14.15	14.05	14.17
5	14.78	14.80	14.87	14.85	14.84	14.68	14.56	14.71	14.23	14.13	14.05	14.21
6	14.79	14.82	14.86	14.84	14.86	14.67	14.53	14.70	14.21	14.17	14.05	14.22
7	14.79	14.82	14.87	14.88	14.87	14.66	14.53	14.70	14.18	14.18	14.05	14.20
8	14.83	14.81	14.87	14.88	14.88	14.63	14.54	.....	14.22	14.17	14.07	14.21
9	14.84	14.82	14.85	14.88	14.91	14.58	14.52	.....	14.22	14.21	14.05	14.17
10	14.82	14.83	14.86	14.87	14.92	14.61	14.51	14.34	14.24	14.22	14.07	14.19
11	14.80	14.83	14.87	14.87	14.91	14.63	14.52	14.33	14.25	14.19	14.08	14.18
12	14.77	14.79	14.90	14.88	14.87	14.63	14.53	14.37	14.24	14.17	14.05	14.15
13	14.77	14.85	14.90	14.88	14.84	14.63	14.53	14.40	14.20	14.16	14.06	14.17
14	14.75	14.85	14.88	14.90	14.84	14.63	14.52	14.47	14.18	14.20	14.06	14.17
15	14.74	14.86	14.82	14.90	14.88	14.63	14.50	14.50	14.19	14.21	14.07	14.15
16	14.77	14.85	14.88	14.90	14.91	14.58	14.49	.....	14.21	14.21	14.07	14.15
17	14.81	14.84	14.88	14.89	14.91	14.59	14.48	.....	14.21	14.18	14.02	14.15
18	14.80	14.84	14.86	14.90	14.88	14.59	14.45	.....	14.20	14.18	14.02	14.16
19	14.79	14.84	14.84	14.92	14.89	14.58	14.47	.....	14.18	14.18	14.09	14.17
20	14.79	14.86	14.86	14.95	14.91	14.59	14.47	.....	14.17	14.17	14.09	14.18
21	14.80	14.86	14.87	14.95	14.89	14.60	14.50	.....	14.18	14.17	14.09	14.14
22	14.81	14.86	14.87	14.94	14.90	14.62	14.49	.....	14.19	14.10	14.09	14.10
23	14.80	14.85	14.87	14.93	14.90	14.62	14.48	.....	14.19	14.13	14.15	14.12
24	14.81	14.84	14.88	14.91	14.89	14.59	14.47	14.60	14.19	14.13	14.15	14.12
25	14.85	14.84	14.88	14.91	14.87	14.57	14.46	14.52	14.22	14.10	14.15	14.14
26	14.85	14.86	14.85	14.90	14.84	14.56	14.60	14.45	14.22	14.08	14.16	14.19
27	14.82	14.86	14.88	14.89	14.77	14.56	14.61	14.43	14.22	14.11	14.16	14.20
28	14.82	14.86	14.89	14.88	14.76	14.55	14.62	14.38	14.28	14.07	14.16	14.20
29	14.82	.....	14.88	14.84	14.70	14.55	14.62	14.34	14.25	14.05	14.16	14.19
30	14.81	.....	14.84	14.84	14.68	14.57	14.70	14.30	14.18	14.06	14.16	14.16
31	14.82	.....	14.86	.....	14.67	.....	14.71	14.28	.....	14.04	.....	14.16

304. A. W. Adams. NW¼SE¼ sec. 27, T. 34 S., R. 30 W. Water levels, in feet below measuring point, 1941: Mar. 14, 219.91; July 16, 220.34; Oct. 8, 220.37.

MORTON COUNTY

By T. G. McLaughlin

Highest and lowest water levels, in feet below measuring point, in 6 wells in Morton County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
22	2.5	74.33	May 12, 1941	76.65	Jan. 6, 1941
54	2.5	73.48	July 18, 1941	76.90	July 25, 1939
65	2.5	53.09	Oct. 28, 1941	54.15	Mar. 13, 1941
93	2.5	159.31	Nov. 18, 1941	160.14	Oct. 27, 1939
					(Dec. 16, 1939
114	2.5	226.62	Aug. 25, 1939	226.89	(Apr. 23, 1940
					(Nov. 13, 1940
117	2.5	166.87	Dec. 16, 1941	167.39	July 26, 1939

Net changes in water level in 1941, and net changes in water level for the period of record in 6 wells in Morton County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
22	2.32	+1.82	-0.18
54	3.42	+1.87	+2.38
65	1.06	+ .87	+ .43
93	.83	+ .30	+ .54
114	.27	+ .05	+ .07
117	.52	+ .10	+ .52

Well descriptions and water-level measurements

22. E. A. Wilcox. SE¼SE¼ sec. 14, T. 31 S., R. 43 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	76.65	Apr. 18	74.64	July 18	74.61	Oct. 28	74.35
Feb. 6	74.52	May 12	74.33	Aug. 14	74.58	Nov. 18	74.67
Mar. 13	74.59	June 17	74.56	Sept.18	74.43	Dec. 16	74.83

54. V. W. Dickinson. SW¼SW¼ sec. 13, T. 33 S., R. 40 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	76.39	Apr. 18	76.36	July 18	73.48	Oct. 28	74.24
Feb. 5	76.33	May 12	76.32	Aug. 14	73.78	Nov. 18	73.89
Mar. 13	76.43	June 17	74.10	Sept.18	73.56	Dec. 16	74.52

65. John Hentschel. SE¼NE¼ sec. 8, T. 33 S., R. 42 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	54.03	Apr. 18	53.16	July 18	53.51	Oct. 28	53.09
Feb. 6	54.07	May 12	54.00	Aug. 14	53.29	Nov. 18	53.10
Mar. 13	54.15	June 17	53.79	Sept.18	53.28	Dec. 16	53.16

93. Ira Webb. NE¼SE¼ sec. 28, T. 34 S., R. 41 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	159.70	Apr. 18	159.55	July 18	159.49	Oct. 28	159.48
Feb. 5	159.38	May 12	159.48	Aug. 14	159.51	Nov. 18	159.31
Mar. 13	159.48	June 17	159.58	Sept.18	159.52	Dec. 16	159.40

Morton County--Continued

114. J. L. Kniffen. SE¼SE¼ sec. 13, T. 35 S., R. 41 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	226.86	Apr. 18	226.86	July 18	226.81	Oct. 28	226.83
Feb. 5	226.72	May 12	226.69	Aug. 14	226.87	Nov. 18	226.87
Mar. 13	226.74	June 17	226.81	Sept.18	226.85	Dec. 16	226.81

117. W. C. Washburn. SW¼SW¼ sec. 4, T. 35 S., R. 42 W.

Water level, in feet below measuring point, 1941

Jan. 6	166.97	Apr. 18	166.95	Sept.18	167.25	Nov. 18	166.90
Feb. 6	166.98	June 17	166.88	Oct. 28	166.88	Dec. 16	166.87

NESS COUNTY

By H. A. Waite

Highest and lowest water levels, in feet below measuring point, in 2 wells in Ness County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
1	1	35.16	June 6, 1941	36.91	Aug. 27, 1940
2	1	24.76	Aug. 2, 1941	25.90	Sept.20, 1940

Net changes in water level in 1941, and net changes in water level for the period of record in 2 wells in Ness County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	1.75	-0.17	+0.69
2	1.14	+ .46	+ .79

Well descriptions and water-level measurements

1. J. E. Ficken. SE¼SW¼ sec. 32, T. 20 S., R. 23 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	36.05	May 10	35.30	Aug. 2	35.91	Nov. 13	36.53
Mar. 17	36 03	June 6	35.16	Sept. 4	36.52	Dec. 4	36.22
Apr. 26	36.02	July 12	35.93	Oct. 2	36.40		

2. C. L. Whitley. SW cor. sec. 20, T. 20 S., R. 22 W.

Water level, in feet below measuring point, 1941

Jan. 20	25.57	May 10	25.25	Aug. 2	24.76	Nov. 13	25.18
Mar. 17	25.27	June 6	25.23	Sept. 4	25.14	Dec. 4	25.11
Apr. 26	25.26	July 12	24.80	Oct. 2	25.23		

PAWNEE COUNTY

By H. A. Waite

Highest and lowest water levels, in feet below measuring point, in 3 wells in Pawnee County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
6	1	23.56	May 10, 1941	25.02	Nov. 28, 1940
7	1	26.13	Dec. 4, 1941	28.00	Nov. 29, 1940
8	1	15.83	(July 12, 1941 (Dec. 4, 1941	19.82	Sept.20, 1940

Net changes in water level in 1941, and net changes in water level for the period of record in 3 wells in Pawnee County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
6	1.46	+0.59	+0.44
7	1.87	+1.81	+1.87
8	3.99	+ .79	+3.46

Well descriptions and water-level measurements

6. Frank Elmore. SW cor. sec. 27, T. 21 S., R. 19 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	24.74	May 10	23.56	Aug. 2	24.00	Nov. 13	24.20
Mar. 17	24.69	June 6	24.47	Sept. 4	24.47	Dec. 4	24.15
Apr. 26	24.68	July 12	23.84	Oct. 2	24.51		

7. Ralph Lupfer. NE¼NE¼ sec. 18, T. 22 S., R. 17 W.

Water level, in feet below measuring point, 1941

Jan. 20	27.94	May 10	27.81	Aug. 2	27.13	Nov. 13	26.43
Mar. 17	27.50	June 6	27.83	Sept. 4	27.58	Dec. 4	26.13
Apr. 26	27.89	July 12	26.83	Oct. 2	27.51		

8. F. B. Reed. NW¼NW¼ sec. 6, T. 22 S., R. 16 W.

Water level, in feet below measuring point, 1941

Jan. 20	16.62	May 10	16.00	Sept. 4	16.51	Nov. 13	16.03
Mar. 17	16.38	June 6	16.36	Oct. 2	16.38	Dec. 4	15.83
Apr. 26	16.20	July 12	15.83				

RUSSELL COUNTY

By J. C. Frye

An investigation of the ground-water resources of western and southern Russell County and northeastern Ellis County, Kans., was started in 1941 as described in the introduction to the chapter on Ellis County.

Well descriptions and water-level measurements

8. F. C. and A. Ptacek. NW¼NW¼ sec. 16, T. 15 S., R. 12 W. Unused drilled stock well, diameter 6 inches, depth 220.1 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top edge of 6-inch galvanized-iron casing, east side, 0.3 foot above land surface. No pump in well. Water levels, in feet below measuring point, 1941: Aug. 8, 97.00; Oct. 3, 94.20; Nov. 7, 118.22; Dec. 1, 117.86.

27. G. M. and A. C. Rogg. NW¼NW¼ sec. 9, T. 15 S., R. 13 W. Drilled stock well, diameter 6 inches, depth 193.8 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top of 6-inch galvanized-iron casing, east side, 0.8 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Aug. 14, 168.10; Oct. 2, 166.95; Nov. 7, 166.15; Dec. 1, 167.20.

45. Jacob Flegler. NW¼NW¼ sec. 11, T. 15 S., R. 14 W. Dug stock well, diameter 32 inches, depth 27.2 feet. Water is obtained from alluvium. Measuring point, top of rock curbing, east side, 0.7 foot above land surface. Equipped with hand-operated lift pump. Water levels, in feet below measuring point, 1941: Aug. 20, 24.98; Oct. 2, 23.35; Nov. 7, 22.25; Dec. 1, 21.77.

49. Benjamin Boxberger. NW¼NW¼ sec. 36, T. 15 S., R. 15 W. Drilled domestic and stock well, diameter 6 inches, depth 175.9 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top of 6-inch galvanized-iron casing, west side, 0.5 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Aug. 21, 137.99; Oct. 2, 138.45; Nov. 7, 137.95; Dec. 1, 137.87.

69. Ferdinand Steinert. Center NE¼ sec. 21, T. 15 S., R. 15 W. Unused drilled domestic and stock well, diameter 6 inches, depth 17.1 feet. Water is obtained from Pleistocene terrace deposits. Measuring point, top of 6-inch galvanized-iron casing, west side, 0.2 foot above land surface. Equipped with hand-operated lift pump. Water levels, in feet below measuring point, 1941: Aug. 27, 13.79; Oct. 2, 13.29; Nov. 7, 13.18; Dec. 1, 13.54.

80. Joseph Furthmyer, Jr. SE¼SE¼ sec. 9, T. 14 S., R. 15 W. Unused dug domestic and stock well, diameter 60 inches, depth 15.1 feet. Water is obtained from Tertiary deposits. Measuring point, top of rock curbing, east side, 0.8 foot above land surface. No pump in well. Water levels, in feet below measuring point, 1941: Aug. 29, 5.51; Oct. 2, 6.84; Nov. 7, 5.15; Dec. 1, 4.86.

81. Joseph Furthmyer, Jr. SE¼SE¼ sec. 9, T. 14 S., R. 15 W. Drilled stock well, diameter 6 inches, depth 224.1 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top of 6-inch galvanized-iron casing, west side, 0.3 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Aug. 29, 102.15; Oct. 2, 128.98; Nov. 7, 131.25; Dec. 1, 127.50.

Russell County--Continued

95. George J. Gobleman. SW¼NE¼ sec. 28, T. 11 S., R. 15 W. Unused dug domestic and stock well, diameter 32 inches, depth 12.1 feet. Water is obtained from Carlile shale. Measuring point, top edge of rock curbing, north side, 0.5 foot above land surface. No pump in well. Water levels, in feet below measuring point, 1941: Aug. 30, 9.78; Oct. 3, 8.98; Nov. 6, 8.53; Dec. 2, 9.02.

116. George P. Bender. NW¼NW¼ sec. 16, T. 13 S., R. 14 W. Unused drilled domestic and stock well, diameter 6 inches, depth 178.9 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top edge of 6-inch galvanized-iron casing, west side, 1.0 foot above land surface. No pump in well. Water levels, in feet below measuring point, 1941: Sept. 6, 156.17; Oct. 3, 153.65; Nov. 7, 152.75; Dec. 2, 150.67.

117. Marie Dutt et al. SE¼NE¼ sec. 18, T. 13 S., R. 14 W. Unused dug well, diameter 26 inches, depth 13.6 feet. Water is obtained from alluvium. Measuring point, top of rock curbing, north side, 0.3 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Sept. 8, 6.88; Oct. 3, 6.96; Nov. 6, 6.30; Dec. 2, 7.22.

121. A. D. Jellison. SE¼NW¼ sec. 30, T. 13 S., R. 14 W. Drilled stock well, diameter 6 inches, depth 183.7 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top of 6-inch galvanized-iron casing, west side, 0.4 foot below land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Sept. 8, 163.42; Oct. 2, 162.92; Nov. 7, 163.55; Dec. 2, 164.20.

126. Bertha Dewald. NW¼SW¼ sec. 19, T. 13 S., R. 13 W. Dug stock well, diameter 30 inches, depth 49.2 feet. Water is obtained from Greenhorn limestone. Measuring point, top edge of rock curbing, south side, 0.2 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Sept. 10, 35.32; Oct. 2, 34.81; Nov. 7, 35.05; Dec. 1, 34.70.

145. Tony Hraik. SE¼SW¼ sec. 14, T. 14 S., R. 11 W. Drilled stock well, diameter 6 inches, depth 44.2 feet. Water is obtained from Pleistocene terrace deposits. Measuring point, top edge of 6-inch galvanized-iron casing, east side, 0.4 foot above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Sept. 20, 41.46; Oct. 2, 41.67; Nov. 7, 41.30; Dec. 1, 41.69.

146. D. P. Steinle. NW¼NE¼ sec. 24, T. 14 S., R. 12 W. Unused dug well, diameter 28 inches, depth 17.3 feet. Water is obtained from Pleistocene terrace deposits. Measuring point, top of rock curbing, north side, 0.6 foot above land surface. Equipped with hand-operated lift pump. Water levels, in feet below measuring point, 1941: Sept. 20, 16.40; Oct. 2, 16.77; Nov. 7, 16.75; Dec. 1, 16.53.

148. John Penix. NE¼SE¼ sec. 13, T. 14 S., R. 13 W. Dug domestic and stock well, diameter 28 inches, depth 11.6 feet. Water is obtained from Pleistocene terrace deposits. Measuring point, top of rock curbing, south side, 1.3 feet above land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Sept. 20, 9.18; Oct. 2, 9.22; Nov. 7, 8.74; Dec. 1, 9.15.

149. George Boxberger, Jr. NE¼NE¼ sec. 22, T. 14 S., R. 14 W. Unused dug well, diameter 32 inches, depth 23.1 feet. Water is obtained from Greenhorn limestone. Measuring point, top edge of rock curbing, west side, 1.3 feet above land surface. Equipped with hand-operated lift pump. Water levels, in feet below measuring point, 1941: Sept. 20, 22.16; Oct. 2, 21.52; Nov. 7, 21.88; Dec. 1, 21.52.

151. D. D. Beisel. SW¼SE¼ sec. 10, T. 14 S., R. 12 W. Unused drilled well, diameter 6 inches, depth 183.9 feet. Water is obtained from a sandstone of the Dakota formation. Measuring point, top of galvanized-iron casing, east side, 0.5 foot below land surface. Equipped with lift pump and windmill. Water levels, in feet below measuring point, 1941: Sept. 22, 170.33; Oct. 2, 170.63; Nov. 7, 170.47; Dec. 1, 171.02.

Russell County--Continued

152. D. D. Beisel. SW¼SE¼ sec. 10, T. 14 S., R. 12 W. Unused dug well, diameter 28 inches, depth 30.8 feet. Water is obtained from Greenhorn limestone. Measuring point, top edge of rock curbing, south side, 0.8 foot above land surface. Equipped with hand-operated lift pump. Water levels, in feet below measuring point, 1941: Sept. 22, 27.25; Oct. 2, 27.12; Nov. 7, 26.94; Dec. 1, 26.92.

154. E. Stielow. SE¼SE¼ sec. 33, T. 11 S., R. 14 W. Unused dug well, diameter 60 inches, depth 8.9 feet. Water is obtained from alluvium. Measuring point, top edge of rock curbing, west side, 2.5 feet above land surface. No pump in well. Water levels, in feet below measuring point, 1941: Oct. 3, 7.60; Nov. 6, 7.13; Dec. 2, 7.95.

SCOTT COUNTY

By H. A. Waite

Highest and lowest water levels, in feet below measuring point, in 32 wells in Scott County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level unaffected by nearby pumping (feet)	Date
1	10	a 14.12	May 14, 16 1934	a 5.66	Sept.13, 1940
1a	1	a 7.06	Aug. 16, 17, 18, 1940	a 5.88	Aug. 24,25,28; Sept.11, 1941
2	8	a 13.85	Apr. 25, 1939	a 9.57	Oct. 2, 3, 4, 1941
3	2	68.94	May 30, 1934	72.16	Oct. 26, 1940
4	2	91.44	May 20; June 24, 1940	92.05	Nov. 16, 1940
5	2	39.79	May 30, 1934	47.93	Dec. 9, 1941
6	2	71.00	Apr. 13, 1936	82.18	Sept.25, 1941
8	2	49.42	Sept. 8, 1939	54.17	Dec. 9, 1941
9	2	48.07	Sept. 8, 1939	52.29	Oct. 27, 1941
13	2	51.56	Sept. 9, 1939	55.14	Nov. 26, 1941
17	2	34.19	Feb. 22, 1940	38.40	Oct. 1, 1941
19	2	46.38	Apr. 18, 1940	49.60	Aug. 26, 1940
23	2	43.35	Apr. 18, 1940	47.15	Oct. 25, 1940
27	2	58.39	Sept.18, 1939	59.53	Nov. 26, 1941
32	2	37.79	Sept.20,21,22, 1939	40.85	Nov. 26, 1941
33	2	73.23	Sept.25,26,27, 1939	76.59	Dec. 9, 1941
34	2	83.84	Nov. 26, 1941	84.03	Mar. 12, 1941
35	2	117.59	Jan. 15, 1940	117.73	May 25, 1941
36	2	126.14	Sept.22, 1939	126.39	Nov. 26, 1941
37	2	97.78	Sept.22, 1939	99.96	Oct. 1, 1941
38	2	72.24	Apr. 18, 1940 (June 24, 1940	72.98	Feb. 22, 1941
39	2	69.22	(Sept.21, 1940	69.36	Nov. 26, 1941
40	2	110.96	Oct. 27, 1941	111.38	Mar. 12, 1941
41	2	131.16	Aug. 27, 1940	131.86	June 25, 1941
42	2	53.02	Sept.23, 1939	62.10	Sept.25, 1941
44	2	68.36	Mar. 19, 1940	69.73	Sept.25, 1941
47	2	32.50	Sept.28, 1939	35.15	Oct. 25, 1940
48	2	32.16	June 25, 1941	32.97	May 25, 1941
49	2	34.91	Oct. 25, 1940	35.36	Oct. 1, 1941
50	2	98.16	July 28, 1941	98.48	(Jan. 16, 1940 (Apr. 18, 1940
54	2	38.35	July 28, 1941	38.59	(May 20, 1940 (June 24, 1940
55	2	17.73	May 20, 1940	20.72	Oct. 1, 1941

a Water level in feet above datum.

Scott County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 32 wells in Scott County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
1	8.46	-0.20	-4.64
1a	1.18	- .33	-1.04
2	4.28	+ .05	-3.38
3	3.22	b + .06	-1.68
4	.61	b - .14	0
5	8.14	-1.97	-8.14
6	11.18	-1.12	-5.21
8	4.75	- .95	-4.75
9	4.22	- .77	-3.28
13	3.58	-1.09	-3.10
17	4.21	-1.12	-3.06
19	3.22	b + .07	+ .41
23	3.80	- .44	-1.57
27	1.14	b - .25	-1.14
32	3.06	-1.54	-3.04
33	3.36	-1.53	-3.36
34	.19	b + .09	+ .06
35	.14	b + .05	- .07
36	.25	b - .06	- .25
37	2.18	b - .96	-1.70
38	.74	b + .31	- .34
39	.14	b - .08	- .13
40	.42	b + .26	+ .12
41	.70	(c)	(c)
42	9.08	- .59	-4.61
44	1.37	- .47	- .45
47	2.65	- .06	-2.33
48	.81	b - .63	- .28
49	.45	(d)	(d)
50	.32	+ .03	
54	.24	b + .03	e + .22
55	2.99	-1.11	-2.17

1. Mrs. Rosine Smith. NW cor. sec. 9, T. 20 S., R. 33 W.

Mean daily water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.25	9.33	9.38	9.51	9.53	9.55	9.46	....	9.04	8.27	8.87	8.95
2	9.25	9.33	9.40	9.51	9.55	9.55	9.46	....	9.06	8.33	8.87	8.96
3	9.26	9.33	9.35	9.50	9.54	9.53	9.46	....	9.07	8.37	8.88	8.98
4	9.27	9.33	9.34	9.48	9.55	9.54	9.47	....	8.65	8.42	8.90	8.99
5	9.27	9.35	9.39	9.52	9.54	9.55	9.48	....	7.76	8.45	8.90	8.96
6	9.27	9.33	9.37	9.49	....	9.55	9.47	....	7.53	8.47	8.91	8.99
7	9.27	9.33	9.37	9.47	....	9.54	9.46	....	7.91	8.49	8.92	9.01
8	9.25	9.33	9.40	9.47	9.54	9.55	9.47	....	8.21	8.53	8.93	9.00
9	9.25	9.34	9.41	9.47	9.51	9.55	9.48	....	8.39	8.54	8.94	9.03
10	9.26	9.34	9.39	9.50	9.52	9.53	9.48	....	8.49	8.57	8.94	9.02
11	9.27	9.35	9.40	9.48	9.53	9.52	9.46	....	8.58	8.60	8.94	9.05
12	9.27	9.38	9.38	9.48	9.55	9.52	9.46	....	8.66	8.62	8.97	9.03
13	9.27	9.28	9.39	9.48	9.56	9.51	9.45	....	8.70	8.63	8.95	9.02
14	9.28	9.32	9.44	9.48	9.55	9.50	9.44	....	8.73	8.63	8.96	9.03
15	9.28	9.31	9.41	9.48	9.54	9.50	9.43	....	8.49	8.65	8.97	9.04
16	9.28	9.35	9.39	9.49	9.53	9.50	9.42	....	7.91	8.68	8.96	9.03
17	9.26	9.34	9.41	9.50	9.56	9.50	9.41	....	7.58	8.69	8.94	9.03
18	9.27	9.35	9.43	9.50	9.58	9.50	9.42	....	7.39	8.69	8.93	9.02
19	9.29	9.35	9.43	9.52	9.57	9.50	9.39	....	7.11	8.71	8.91	9.02
20	9.30	9.34	9.42	9.49	9.55	9.49	9.40	8.77	6.79	8.73	8.90	9.03

b For the period from Feb. 22 to Nov. 26, 1941.
c Accuracy of water-level measurements after June 25, 1941 questionable.
d Measurements discontinued after Oct. 1, 1941.
e For the period from May 20, 1940 to Nov. 26, 1941.

Scott County--Continued

1. Mrs. Rosine Smith--Continued.

Mean daily water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	9.31	9.35	9.42	9.50	9.55	9.47	9.40	8.81	6.93	8.73	8.94	9.04
22	9.30	9.35	9.43	9.51	9.56	9.45	9.40	8.86	7.15	8.74	8.94	9.04
23	9.31	9.37	9.45	9.51	9.54	9.46	9.40	8.89	6.99	8.73	8.93	9.03
24	9.33	9.36	9.44	9.51	9.57	9.46	9.40	8.94	7.27	8.73	8.94	9.04
25	9.34	9.37	9.46	9.53	9.58	9.47	9.40	8.95	7.62	8.77	8.94	9.04
26	9.33	9.36	9.47	9.53	9.58	9.47	....	8.96	7.82	8.78	8.93	9.00
27	9.31	9.35	9.47	9.53	9.57	9.47	....	8.98	7.96	8.77	8.94	9.01
28	9.33	9.36	9.46	9.52	9.51	9.47	....	9.01	8.05	8.81	8.95	9.02
29	9.34	....	9.50	9.54	9.52	9.46	....	9.02	8.16	8.84	8.96	9.05
30	9.34	....	9.50	9.53	9.54	9.47	....	9.03	8.22	8.83	8.94	9.05
31	9.34	....	9.46	....	9.55	....	....	9.03	....	8.86	....	9.05

1A. Division of Water Resources, Kansas State Board of Agriculture. NW¼SW¼ sec. 3, T. 20 S., R. 33 W.

Mean daily water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.35	6.43	6.52	6.61	6.67	6.42	6.07	6.08	5.88	5.95	5.96	5.96
2	6.35	6.43	6.52	6.62	6.67	6.39	6.07	6.07	5.88	5.95	5.96	5.96
3	6.35	6.44	6.52	6.62	6.67	6.36	6.07	6.06	5.88	5.95	5.96	5.97
4	6.36	6.44	6.52	6.62	6.67	6.34	6.08	6.03	5.88	5.96	5.96	5.97
5	6.36	6.45	6.53	6.63	6.67	6.30	6.08	6.02	5.88	5.96	5.96	5.97
6	6.36	6.45	6.53	6.63	6.67	6.29	6.08	6.02	5.88	5.96	5.96	5.97
7	6.36	6.46	6.54	6.63	6.67	6.27	6.08	6.01	5.88	5.96	5.96	5.97
8	6.36	6.46	6.54	6.63	6.68	6.23	6.09	5.99	5.88	5.97	5.96	5.97
9	6.37	6.46	6.54	6.64	6.68	6.21	6.09	5.98	5.88	5.96	5.96	5.97
10	6.37	6.47	6.55	6.64	6.68	6.20	6.09	5.97	5.88	5.96	5.95	5.97
11	6.37	6.47	6.55	6.64	6.68	6.18	6.10	5.96	5.88	5.97	5.95	5.98
12	6.37	6.47	6.55	6.64	6.68	6.16	6.10	5.95	5.90	5.97	5.95	5.98
13	6.38	6.48	6.55	6.65	6.68	6.15	6.11	5.93	5.90	5.97	5.94	5.98
14	6.38	6.48	6.56	6.65	6.69	6.14	6.11	5.92	5.90	5.97	5.94	5.99
15	6.38	6.48	6.56	6.65	6.69	6.13	6.11	5.92	5.91	5.97	5.95	5.99
16	6.38	6.49	6.56	6.65	6.69	6.12	6.11	5.92	5.91	5.97	5.95	5.99
17	6.38	6.49	6.57	6.66	6.69	6.11	6.11	5.92	5.92	5.97	5.95	5.99
18	6.39	6.49	6.57	6.66	6.69	6.10	6.12	5.92	5.92	5.97	5.95	6.00
19	6.39	6.49	6.57	6.66	6.69	6.10	6.12	5.92	5.92	5.97	5.95	6.00
20	6.40	6.50	6.58	6.66	6.68	6.10	6.13	5.91	5.93	5.97	5.96	6.00
21	6.40	6.50	6.58	6.66	6.67	6.09	6.14	5.91	5.94	5.97	5.96	6.00
22	6.40	6.50	6.58	6.66	6.65	6.09	6.14	5.90	5.94	5.97	5.96	6.00
23	6.41	6.51	6.58	6.66	6.63	6.09	6.15	5.89	5.95	5.97	5.95	6.00
24	6.41	6.51	6.58	6.67	6.62	6.09	6.16	5.88	5.95	5.96	5.95	6.01
25	6.41	6.51	6.59	6.67	6.60	6.09	6.17	5.88	5.95	5.96	5.95	6.01
26	6.41	6.51	6.59	6.67	6.59	6.10	6.16	5.89	5.95	5.96	5.95	6.01
27	6.41	6.51	6.60	6.67	6.57	6.10	6.16	5.89	5.96	5.96	5.95	6.01
28	6.42	6.51	6.60	6.67	6.55	6.09	6.14	5.88	5.95	5.95	5.95	6.01
29	6.42	....	6.61	6.67	6.52	6.09	6.13	5.88	5.95	5.95	5.95	6.01
30	6.43	....	6.61	6.67	6.49	6.08	6.11	5.88	5.95	5.95	5.96	6.01
31	6.43	....	6.61	....	6.46	....	6.09	5.88	....	5.96	....	6.02

2. E. E. Coffin. NE¼SE¼ sec. 25, T. 18 S., R. 33 W.

Mean daily water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.92	10.07	10.19	10.34	10.47	10.29	10.10	10.03	9.75	9.58	9.72	9.83
2	9.93	10.07	10.20	10.34	10.47	10.28	10.10	10.02	9.74	9.57	9.72	9.84
3	9.93	10.08	10.20	10.35	10.48	10.26	10.10	10.01	9.73	9.57	9.73	9.84
4	9.93	10.08	10.20	10.35	10.48	10.24	10.10	10.00	9.72	9.57	9.73	9.85
5	9.93	10.08	10.21	10.36	10.49	10.24	10.10	9.99	9.72	9.58	9.74	9.86
6	9.94	10.09	10.21	10.36	10.49	10.22	10.11	9.98	9.71	9.59	9.74	9.86
7	9.94	10.09	10.22	10.36	10.49	10.21	10.10	9.97	9.70	9.60	9.75	9.87
8	9.95	10.10	10.23	10.37	10.50	10.20	10.10	9.97	9.69	9.60	9.75	9.88
9	9.95	10.10	10.23	10.38	10.50	10.19	10.11	9.96	9.69	9.61	9.76	9.88

Scott County--Continued

2. E. E. Coffin--Continued.

Mean daily water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	9.96	10.10	10.24	10.39	10.50	10.18	10.10	9.95	9.68	9.61	9.76	9.88
11	9.96	10.11	10.24	10.39	10.51	10.17	10.10	9.93	9.68	9.61	9.76	9.88
12	9.96	10.12	10.24	10.39	10.51	10.16	10.10	9.91	9.67	9.61	9.77	9.89
13	9.96	10.13	10.25	10.39	10.52	10.16	10.10	9.91	9.66	9.61	9.77	9.89
14	9.96	10.13	10.25	10.40	10.53	10.15	10.10	9.90	9.66	9.62	9.78	9.89
15	9.97	10.13	10.25	10.41	10.53	10.14	10.10	9.89	9.66	9.62	9.78	9.89
16	9.99	10.13	10.25	10.41	10.53	10.14	10.09	9.87	9.66	9.63	9.78	9.89
17	9.99	10.13	10.26	10.41	10.53	10.13	10.09	9.85	9.65	9.63	9.78	9.90
18	9.99	10.14	10.26	10.42	10.53	10.12	10.08	9.85	9.64	9.63	9.79	9.90
19	10.00	10.15	10.26	10.43	10.53	10.12	10.08	9.84	9.63	9.64	9.79	9.90
20	10.00	10.15	10.27	10.43	10.52	10.11	10.07	9.84	9.63	9.64	9.79	9.91
21	10.01	10.15	10.27	10.44	10.51	10.10	10.06	9.83	9.63	9.65	9.79	9.91
22	10.02	10.16	10.28	10.44	10.51	10.09	10.06	9.82	9.62	9.66	9.79	9.92
23	10.03	10.17	10.28	10.44	10.50	10.09	10.06	9.81	9.61	9.66	9.80	9.92
24	10.04	10.17	10.29	10.45	10.48	10.10	10.06	9.80	9.61	9.67	9.80	9.93
25	10.04	10.17	10.30	10.45	10.47	10.10	10.05	9.80	9.61	9.68	9.80	9.93
26	10.04	10.18	10.30	10.45	10.44	10.09	10.05	9.79	9.60	9.69	9.80	9.94
27	10.05	10.18	10.30	10.45	10.42	10.10	10.04	9.78	9.60	9.70	9.80	9.95
28	10.05	10.19	10.31	10.45	10.39	10.10	10.03	9.77	9.59	9.70	9.81	9.96
29	10.06	.....	10.32	10.46	10.36	10.10	10.03	9.76	9.59	9.71	9.81	9.96
30	10.07	.....	10.33	10.46	10.34	10.10	10.03	9.76	9.59	9.72	9.82	9.97
31	10.07	.....	10.33	.....	10.32	.....	10.03	9.75	.....	9.72	....	9.97

3. Claude Hughes. SW¼SW¼ sec. 21, T. 18 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	70.68	May 25	70.43	Aug. 25	71.18	Oct. 27	70.78
Mar. 12	70.58	June 25	70.52	Oct. 1	71.03	Nov. 26	70.62
Apr. 25	70.35	July 28	70.81				

4. W. N. Robinson. SE¼NW¼ sec. 31, T. 18 S., R. 34 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	91.70	May 25	91.59	Aug. 25	91.81	Oct. 27	91.99
Mar. 12	91.74	June 25	91.64	Oct. 1	91.85	Nov. 26	91.84
Apr. 25	91.65	July 28	91.59				

5. Mrs. Rosine Smith. SW¼NW¼ sec. 25, T. 19 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	45.96	May 25	46.28	Aug. 25	46.74	Nov. 26	47.25
Mar. 12	45.93	June 25	46.39	Sept.25	46.89	Dec. 9	47.93
Apr. 25	46.08	July 28	46.51	Oct. 27	47.08		

6. American Life Insurance Co. NW¼SW¼ sec. 29, T. 19 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	79.24	May 25	79.00	Aug. 25	80.78	Nov. 26	80.53
Mar. 12	79.14	June 25	78.79	Sept.25	82.18	Dec. 9	80.41
Apr. 25	79.02	July 28	78.99	Oct. 27	80.96		

8. Mrs. Rosine Smith. NW¼NW¼ sec. 35, T. 19 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 12	53.22	July 28	53.50	Sept.25	53.84	Nov. 26	54.12
Apr. 25	53.34	Aug. 25	53.44	Oct. 27	53.96	Dec. 9	54.17

9. Mrs. Rosine Smith. SW¼SW¼ sec. 35, T. 19 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	50.58	May 25	50.60	Aug. 25	50.82	Nov. 26	51.52
Mar. 12	50.57	June 25	50.67	Sept.25	a 52.90	Dec. 9	51.35
Apr. 25	50.43	July 28	50.75	Oct. 27	52.59		

a Irrigation well 300 yards south pumping.

Scott County--Continued

13. Mrs. Rosine Smith. SW¼SW¼ sec. 2, T. 20 S., R. 33 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	53.57	May 25	53.48	Aug. 25	53.72	Nov. 26	55.14
Mar. 12	53.49	June 25	53.73	Sept.25	a 57.52	Dec. 9	54.66
Apr. 25	53.25	July 28	53.66	Oct. 27	57.39		

17. H. E. Trout. NE¼NW¼ sec. 30, T. 19 S., R. 32 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	36.30	May 25	36.15	Aug. 25	37.85	Nov. 26	38.25
Mar. 12	36.11	June 25	36.83	Oct. 1	38.40	Dec. 9	37.42
Apr. 25	36.30	July 28	36.74	27	38.28		

19. J. Dyer. SE¼NE¼ sec. 12, T. 18 S., R. 33 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	47.75	Apr. 25	48.30	Oct. 1	47.97	Nov. 26	47.68
Mar. 12	47.64	June 25	48.29	27	47.84		

23. SE¼SE¼ sec. 24, T. 18 S., R. 33 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	45.12	May 25	45.44	Aug. 25	46.32	Nov. 26	45.44
Mar. 12	45.05	June 25	45.28	Oct. 1	46.25	Dec. 9	45.56
Apr. 25	44.84	July 28	45.31	27	45.75		

27. Anson Mark. NE¼NW¼ sec. 15, T. 18 S., R. 33 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	59.28	May 25	59.27	Aug. 25	59.34	Oct. 27	59.50
Mar. 12	59.29	June 25	59.31	Oct. 1	59.44	Nov. 26	59.53
Apr. 25	59.29	July 28	59.31				

32. E. J. Roark. NW¼SE¼ sec. 25, T. 19 S., R. 33 W.
Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Oct.	Nov.	Dec.
1	39.29	.....	.....	39.45	39.52	39.75	39.90	40.71	.....	.....
2	39.29	.....	.....	39.46	39.53	39.76	39.90	.....	.....	.....
3	39.29	.....	.....	39.46	39.53	39.75	39.90	.....	.....	.....
4	39.29	.....	.....	39.46	39.54	39.75	39.90	.....	.....	.....
5	39.29	.....	.....	39.46	39.54	39.75	39.90	.....	.....	.....
6	39.30	.....	.....	39.46	39.55	39.76	39.91	.....	.....	.....
7	39.30	.....	.....	39.47	39.55	39.76	39.91	.....	.....	.....
8	39.30	.....	.....	39.47	39.55	39.76	39.91	.....	.....	.....
9	39.30	39.40	30.46	30.47	30.56	.....	39.92	.....	.....	40.83
10	39.30	39.40	39.46	39.47	39.56	.....	39.92	.....	.....	.....
11	39.30	39.40	39.46	39.47	39.56	39.84	39.94	.....	.....	.....
12	39.30	39.40	39.46	39.47	39.56	39.84	39.95	.....	.....	.....
13	39.30	39.40	39.46	39.47	39.57	39.83	39.97	.....	.....	.....
14	39.30	39.40	39.46	39.48	39.57	39.83	b39.98	.....	.....	.....
15	39.30	39.40	39.46	39.48	39.57	39.84	.....	.....	.....	.....
16	39.30	39.40	39.46	39.48	39.58	39.85	.....	.....	.....	.....
17	39.31	39.40	39.46	39.48	39.58	39.85	.....	.....	.....	.....
18	39.31	39.40	39.45	39.48	39.60	39.86	.....	.....	.....	.....
19	39.31	39.40	39.45	39.48	39.63	39.86	.....	.....	.....	.....
20	39.31	39.40	39.45	39.48	39.65	39.87	.....	.....	.....	.....
21	39.31	39.40	39.45	39.48	39.66	39.88	.....	.....	.....	.....
22	39.31	39.40	39.45	39.48	39.67	39.88	.....	.....	.....	.....
23	39.31	39.40	39.45	39.48	39.68	39.88	.....	.....	.....	.....
24	39.31	.....	39.45	39.48	39.69	39.88	.....	.....	.....	.....
25	39.31	.....	39.45	39.49	39.70	39.88	.....	.....	.....	.....
26	.....	.....	39.45	39.50	39.71	39.89	.....	.....	40.85	.....
27	.....	.....	39.45	39.50	39.72	39.89	.....	40.84	.....	.....
28	.....	.....	39.45	39.51	39.73	39.89	.....	.....	.....	.....
29	.....	.....	39.45	39.52	39.74	39.90	.....	.....	.....	.....
30	.....	.....	39.45	39.52	39.74	39.89	.....	.....	.....	.....
31	.....	.....	39.45	.....	39.75	.....	.....	.....	.....	.....

a Irrigation well half a mile north pumping.
b Automatic recorder removed July 14, wetted-tape measurement after this date.

Scott County--Continued

33. American Life Insurance Co. NE¼SW¼ sec. 31, T. 19 S., R. 33 W.
Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	75.06	.....	.....	75.45	75.57	75.68	75.73	.....	.....	.....	.....	.....
2	75.07	.....	.....	75.46	75.58	75.68	75.73	.....	.....	.....	.....	.....
3	75.07	.....	.....	75.47	75.58	75.68	75.73	.....	.....	.....	.....	.....
4	75.08	.....	.....	75.47	75.58	75.69	75.73	.....	.....	.....	.....	.....
5	75.08	.....	.....	75.47	.....	75.69	75.74	.....	.....	.....	.....	.....
6	75.09	.....	.....	75.48	75.61	75.70	75.73	.....	.....	.....	.....	.....
7	75.10	.....	.....	75.48	75.62	75.71	75.74	.....	.....	.....	.....	.....
8	75.10	.....	.....	75.48	75.62	75.70	75.74	.....	.....	.....	.....	.....
9	75.10	75.27	75.39	75.48	75.62	.....	75.74	.....	.....	.....	.....	76.59
10	75.11	75.28	75.40	75.48	75.62	.....	75.74	.....	.....	.....	.....	.....
11	75.11	75.27	75.40	75.49	75.62	.....	75.74	.....	.....	.....	.....	.....
12	75.11	75.29	75.40	75.49	75.62	.....	75.75	.....	.....	.....	.....	.....
13	75.11	75.29	75.40	75.50	75.62	.....	75.75	.....	.....	.....	.....	.....
14	75.12	75.29	75.41	75.50	75.62	.....	a75.76	.....	.....	.....	.....	.....
15	75.13	75.29	75.41	75.51	75.62	75.72	.....	.....	.....	.....	.....	.....
16	75.12	75.29	75.42	75.51	75.62	75.72	.....	.....	.....	.....	.....	.....
17	75.12	75.29	75.41	75.51	75.62	75.72	.....	.....	.....	.....	.....	.....
18	75.13	75.30	75.41	75.52	75.62	75.72	.....	.....	.....	.....	.....	.....
19	75.13	75.30	75.42	75.53	75.64	75.71	.....	.....	.....	.....	.....	.....
20	75.14	75.31	75.42	75.53	75.64	75.71	.....	.....	.....	.....	.....	.....
21	75.14	75.31	75.42	75.53	75.65	75.71	.....	.....	.....	.....	.....	.....
22	75.15	75.32	75.42	75.54	75.66	75.72	.....	.....	.....	.....	.....	.....
23	75.15	75.32	75.42	75.54	75.66	75.72	.....	.....	.....	.....	.....	.....
24	.....	.....	75.43	75.54	75.66	75.72	.....	.....	.....	.....	.....	.....
25	.....	.....	75.44	75.54	75.66	75.72	.....	75.89	76.06	.....	.....	.....
26	.....	.....	75.44	75.55	75.66	75.73	.....	.....	.....	.....	75.94	.....
27	.....	.....	75.45	75.55	75.66	75.73	.....	.....	.....	76.12	.....	.....
28	.....	.....	75.45	75.55	75.67	75.73	75.83	.....	.....	.....	.....	.....
29	.....	.....	75.45	75.56	75.67	75.73	.....	.....	.....	.....	.....	.....
30	.....	.....	75.45	75.57	75.67	75.73	.....	.....	.....	.....	.....	.....
31	.....	.....	75.45	.....	75.68	.....	.....	.....	.....	.....	.....	.....

34. H. M. A. Hess et al. SW¼SW¼ sec. 19, T. 18 S., R. 34 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	83.93	May 25	83.91	Aug. 25	83.85	Oct. 27	83.89
Mar. 12	84.03	June 25	83.94	Oct. 1	84.02	Nov. 26	83.84
Apr. 25	83.95	July 28	83.89				

35. Mrs. Lily Miller. SE¼SE¼ sec. 18, T. 16 S., R. 34 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	117.82	Apr. 25	117.84	June 25	117.81	Oct. 27	117.85
Mar. 12	117.78	May 25	117.73	Oct. 1	117.88	Nov. 26	117.77

36. Henry S. Mix. SE¼NE¼ sec. 11, T. 16 S., R. 34 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	126.33	Apr. 25	126.30	June 25	126.32	Oct. 27	126.18
Mar. 12	126.34	May 25	126.25	Oct. 1	126.38	Nov. 26	126.39

37. Joseph Hickey estate. NE¼SW¼ sec. 16, T. 17 S., R. 33 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	98.52	May 25	98.84	July 28	98.98	Oct. 27	99.67
Mar. 12	98.23	June 25	98.29	Oct. 1	99.96	Nov. 26	99.48
Apr. 25	98.88						

38. Brandt. NE¼SE¼ sec. 24, T. 17 S., R. 33 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	72.98	Apr. 25	72.63	June 25	72.64	Nov. 26	72.67
Mar. 12	72.89	May 25	72.64	Oct. 1	72.61		

a Automatic recorder removed July 14, wetted-tape measurements after this date.

Scott County--Continued

39. Henry F. Poos estate. NE¼NE¼ sec. 26, T. 18 S., R. 31 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	69.28	May 25	69.31	Aug. 25	69.27	Oct. 27	69.29
Mar. 12	69.29	July 28	69.23	Oct. 1	69.33	Nov. 26	69.36
Apr. 24	69.29						

40. Michael McLaughlin. SW¼NW¼ sec. 2, T. 17 S., R. 31 W.

Water level, in feet below measuring point, 1941

Feb. 18	111.29	May 25	111.35	Aug. 25	111.20	Oct. 27	110.96
Mar. 12	111.38	June 25	111.37	Oct. 1	111.25	Nov. 26	111.03
Apr. 24	111.31						

41. Almada King. NW¼NW¼ sec. 12, T. 17 S., R. 32 W.

Water level, in feet below measuring point, 1941

Feb. 18	131.81	May 25	131.79	Aug. 25	a126.91	Oct. 27	a129.07
Mar. 12	131.84	June 25	131.86	Oct. 1	a128.42	Nov. 26	a128.79
Apr. 24	131.82						

42. Mrs. Rosine Smith. SW¼NW¼ sec. 26, T. 19 S., R. 33 W.

Water level, in feet below measuring point, 1941

Feb. 22	57.04	May 25	57.22	Sept.25	62.10	Nov. 26	57.85
Mar. 12	57.70	June 25	57.25	Oct. 27	57.78	Dec. 9	57.63
Apr. 25	57.21	July 28	57.18				

44. Melchior Lang. SW¼NE¼ sec. 2, T. 20 S., R. 34 W.

Water level, in feet below measuring point, 1941

Feb. 19	68.85	May 25	68.79	Aug. 25	69.46	Nov. 26	69.23
Mar. 12	69.50	June 25	69.00	Sept.25	69.73	Dec. 9	69.32
Apr. 25	68.83	July 28	69.08	Oct. 27	69.34		

47. V. M. Harris (Federal Land Bank). SE¼NW¼ sec. 29, T. 18 S., R. 32 W.

Water level, in feet below measuring point, 1941

Feb. 22	34.77	May 25	35.12	Aug. 25	34.80	Nov. 26	34.84
Mar. 12	34.65	June 25	34.59	Oct. 1	35.11	Dec. 8	34.83
Apr. 25	34.70	July 28	b42.70	27	34.89		

48. P. Roark. NE¼NE¼ sec. 25, T. 20 S., R. 33 W.

Water level, in feet below measuring point, 1941

Jan. 29	32.17	Apr. 25	32.87	July 25	32.69	Oct. 27	32.72
Feb. 18	32.79	May 25	32.97	Aug. 25	32.56	Nov. 26	32.80
Mar. 12	32.88	June 25	32.16	Sept.25	32.67		

49. Geo. M. Crofton. SE¼NE¼ sec. 22, T. 20 S., R. 31 W. Measurements discontinued after Oct. 1, 1941, because of an obstacle in casing just above water level. Water level, in feet below measuring point, 1941: Mar. 12, 35.05; Oct. 1, 35.36.

50. F. M. Houstin. SW¼SE¼ sec. 28, T. 19 S., R. 32 W.

Water level, in feet below measuring point, 1941

Feb. 18	98.22	May 25	98.23	Oct. 1	98.17	Nov. 26	98.19
Mar. 12	98.20	July 28	98.16	27	98.24	Dec. 9	98.19
Apr. 25	98.19	Aug. 25	98.21				

54. B. B. Harkness. SE cor. sec. 10, T. 20 S., R. 31 W.

Water level, in feet below measuring point, 1941

Feb. 18	38.40	May 25	38.38	Aug. 25	38.36	Oct. 27	38.38
Mar. 12	38.44	July 28	38.35	Oct. 1	38.42	Nov. 26	38.37
Apr. 25	38.39						

a Accuracy of water level questionable; dirt and surface water had entered the well.

b Irrigation well 30 feet south pumping.

Scott County--Continued

55. J. U. Hushaw. NW cor. sec. 7, T. 19 S., R. 32 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	18.79	Apr. 25	19.02	Oct. 1	20.72	Nov. 26	19.91
Mar. 12	18.46	May 25	19.19	27	20.18	Dec. 9	19.90

SEDGWICK COUNTY

By C. C. Williams and G. H. von Hein

Highest and lowest water levels, in feet below measuring point, in 31 wells in Sedgwick County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
11	4	60.01	Oct. 3, 1939	61.84	July 4, 1938
12	4	18.33	Nov. 12, 15, 16, 1941	21.98	Apr. 1, 2, 8, 9,11,12, 1938
26	4	12.30	June 15, 1941	26.18	Jan. 29, 1940
28	4	15.54	Nov. 10, 1941	20.78	Feb. 1, 1938
307	4	12.59	June 15, 1940	15.68	June 4, 5, 1941
800	3	18.28	Dec. 2, 1941	20.69	Apr. 3, 1940
802	3	4.39	Nov. 10, 1941	7.71	Nov. 2, 1939
804	3	1.87	July 8, 1941	4.78	Dec. 5, 1939
805	3	5.70	July 8, 1941	8.98	Dec. 3, 1940
806	3	16.28	Dec. 2, 1941	18.11	Nov. 5, 1940
807	3	22.02	Nov. 2, 1939	24.04	Jan. 2, 1941
808	3	21.04	Nov. 2, 1938	24.47	Mar. 4, 1941
809	3	14.98	Oct. 29, 1938	18.28	Jan. 2, 1941
810	3	9.01	Oct. 24, 1941	14.68	Aug. 30, 1940
811	3	5.46	July 5, 1941	9.96	Nov. 22, 1940
812	3	9.71	July 5, 1941	13.42	Jan. 10, 1941
813	3	15.57	Nov. 10, 1941	18.40	Mar. 4, 1941
814	3	14.86	Dec. 2, 1941	18.11	Dec. 3, 1940; Jan. 2,Feb. 3, Mar. 4,May 1, 1941
815	3	13.05	Nov. 21, 1941	15.54	Jan. 24, 31, 1941
816	3	10.69	Dec. 26, 1941	13.51	Jan. 24, 31, 1941
825	3	12.64	Dec. 2, 1941	15.53	Nov. 5, 1940
826	3	10.10	Oct. 27, 1941	14.01	Nov. 4, 1940
830	3	26.12	Sept. 9, 1938	30.62	Oct. 3, 1940
834	3	10.27	Nov. 10, 1941	13.20	Oct. 3, 1940
838	3	25.79	Sept. 6, 1939	27.91	Nov. 5, 1940
840	3	2.97	July 5, 1941	13.67	Nov. 22, 1940
842	3	4.45	July 8, 1941	8.57	Nov. 5, 1940
845	3	14.32	July 8, 1941	16.95	Apr. 3, 1940
846	3	15.96	July 8, 1941	18.35	Apr. 3, 1940
847	3	16.41	July 8, 1941	18.59	(Apr. 3, 1940 (May 1, 1941
870	3	7.36	Dec. 2, 1941	10.80	Nov. 5, 1940

Sedgwick County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 31 wells in Sedgwick County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
11	1.83	+0.42	+0.35
12	3.65	+2.49	+2.75
26	13.88	+1.25	+4.62
28	5.24	+3.73	+4.05
307	3.09	+1.19	a -1.05
800	2.41	+2.18	+ .48
802	3.32	+1.12	- .47
804	2.91	+ .87	+ .25
805	3.28	+1.07	+ .26
806	1.83	+1.78	+1.52
807	2.02	+1.93	+1.18
808	3.43	+1.06	+1.09
809	3.30	+3.14	+1.12
810	5.67	+2.34	+ .19
811	4.50	+2.70	+1.45
812	3.71	+3.32	+2.19
813	2.83	+2.58	+2.02
814	3.25	+3.25	+1.97
815	2.49	+2.38	+1.61
816	2.82	+2.74	+1.47
825	2.89	+2.66	+1.56
826	3.91	+2.23	+ .63
830	4.50	+2.26	-1.96
834	2.93	+2.16	+1.32
838	2.12	+1.98	+ .46
840	10.70	+7.68	+6.75
842	4.12	+2.91	+2.56
845	2.63	+ .60	+ .90
846	2.39	+ .78	- .02
847	2.18	+1.07	- .25
870	3.44	+2.78	+1.57

11. J. H. Heim. SE cor. sec. 22, T. 26 S., R. 3 W.
Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	60.81	Apr. 1	60.92	July 8	60.81	Oct. 13	60.55
Feb. 4	60.88	May 1	60.97	Aug. 4	60.67	Nov. 10	60.40
Mar. 4	60.94	June 4	60.96	Sept. 3	60.60	Dec. 2	60.39

12. Dr. A. D. Updegraph. NW¼SE¼ sec. 26, T. 25 S., R. 1 W.
Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.36	21.41	21.37	21.32	21.43	21.33	20.10	19.31	19.58	19.25	18.48	18.55
2	21.37	21.41	21.34	21.31	21.43	21.33	20.09	19.32	19.57	19.25	18.46	18.57
3	21.36	21.41	21.40	21.33	21.43	21.32	20.02	19.33	19.55	19.27	18.43	18.57
4	21.35	21.38	21.41	21.35	21.43	21.32	19.91	19.33	19.48	19.25	18.40	18.54
5	21.35	21.36	21.40	21.36	21.42	21.31	19.78	19.34	19.43	19.29	18.37	18.62
6	21.35	21.34	21.40	21.35	21.42	21.30	19.72	19.35	19.38	19.34	18.36	18.65
7	21.35	21.32	21.40	21.37	21.43	21.31	19.65	19.36	19.33	19.32	18.35	18.66
8	21.36	21.31	21.40	21.38	21.41	21.29	19.60	19.37	19.28	19.27	18.35	18.67
9	21.37	21.31	21.39	21.38	21.42	21.28	19.55	19.39	19.25	19.20	18.35	18.67
10	21.35	21.31	21.40	21.38	21.40	21.18	19.51	19.40	19.22	19.16	18.35	18.70
11	21.36	21.31	21.41	21.38	21.38	21.04	19.47	19.41	19.19	19.11	18.35	18.69
12	21.35	21.28	21.41	21.39	21.37	20.91	19.45	19.42	19.14	19.08	18.33	18.69
13	21.36	21.34	21.40	21.39	21.34	20.76	19.43	19.43	19.12	19.05	18.34	18.73
14	21.35	21.35	21.37	21.40	21.32	20.70	19.40	19.44	19.10	19.06	18.35	18.74

a Drawdown resulting from pumping in nearby well field.

Sedgwick County--Continued

12. Dr. A. D. Updegraph--Continued.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	21.35	21.36	21.32	21.40	21.32	20.62	19.38	19.45	19.10	19.05	18.33	18.74
16	21.37	21.35	.....	21.40	21.33	20.55	19.36	.....	19.13	19.03	18.33	18.75
17	21.39	21.35	21.35	21.38	21.34	20.51	19.34	.....	19.13	19.00	18.34	18.77
18	21.40	21.36	21.33	21.38	21.32	20.49	19.31	.....	19.14	18.99	18.35	18.79
19	21.39	21.37	21.30	21.42	21.31	20.47	19.31	.....	19.13	18.98	18.40	18.80
20	21.38	21.38	21.31	21.43	21.33	20.46	19.30	.....	19.13	18.98	18.43	18.81
21	21.38	21.36	21.33	21.44	21.34	.....	19.29	.....	19.15	18.98	18.41	18.79
22	21.40	21.36	21.31	21.43	21.34	.....	19.27	19.50	19.16	18.98	18.43	18.78
23	21.40	21.35	21.32	21.44	21.35	20.22	19.27	19.50	19.16	18.96	18.45	18.83
24	21.41	21.36	21.33	21.44	21.34	20.21	19.27	19.50	19.16	18.88	18.46	18.83
25	21.41	21.36	21.32	21.44	21.32	20.20	19.27	19.51	19.20	18.83	18.45	18.83
26	21.43	21.37	21.31	21.43	21.31	20.18	19.28	19.54	19.21	18.71	18.47	18.86
27	21.43	21.38	21.33	21.43	21.31	20.17	19.28	19.55	19.26	18.67	18.49	18.88
28	21.43	21.39	21.33	21.43	21.32	20.16	19.28	19.55	19.25	18.63	18.51	18.88
29	21.40	.....	21.33	21.42	21.33	20.14	19.28	19.56	19.25	18.58	18.52	18.87
30	21.41	.....	21.31	21.42	21.33	20.12	19.29	19.56	19.25	18.55	18.53	18.86
31	21.41	.....	21.32	.....	21.32	.....	19.30	19.58	.....	18.50	.....	18.87

26. Wichita Water Co. SW¼ sec. 18, T. 27 S., R. 1 W.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.06	15.87	15.73	15.64	15.66	15.43	12.56	14.83	15.68	15.84	13.58	14.33
2	16.06	15.84	15.75	15.62	15.57	15.25	12.55	14.87	15.70	15.84	13.55	14.34
3	16.02	15.83	15.82	15.65	15.58	15.19	12.36	14.91	15.70	15.86	13.59	14.34
4	16.04	15.80	15.83	15.68	15.56	15.16	12.40	14.97	15.65	15.83	13.62	14.37
5	16.03	15:77	15.78	15.67	15.56	15.13	12.58	15.03	15.71	15.83	13.68	14.43
6	16.06	15.75	15.74	15.65	15.53	15.10	12.91	15.09	15.72	15.86	13.74	14.43
7	16.07	15.71	15.71	15.67	15.48	15.10	13.04	15.14	15.59	15.86	13.81	14.45
8	16.06	15.71	15.71	15.67	15.45	15.08	13.33	15.19	15.42	15.79	13.84	14.46
9	16.07	15.72	15.68	15.67	15.49	15.00	13.50	15.22	15.24	15.68	13.89	14.50
10	16.00	15.72	15.67	15.65	15.51	14.68	13.65	15.26	15.22	15.68	13.95	14.55
11	16.00	15.73	15.66	15.66	15.50	14.03	13.75	15.32	15.31	15.62	13.99	14.58
12	15.99	15.72	15.65	15.68	15.46	13.62	13.87	15.34	15.39	15.58	14.02	14.64
13	16.00	15.80	15.61	15.67	15.33	13.12	13.96	15.35	15.47	15.58	14.07	14.67
14	15.98	15.77	15.55	15.68	15.31	12.59	14.04	15.38	15.55	15.55	14.09	14.69
15	15.97	15.77	.....	15.68	15.33	12.30	14.11	15.41	15.61	15.57	14.11	14.70
16	15.97	15.76	.....	15.62	15.36	12.51	14.19	.....	15.67	15.57	14.14	14.71
17	15.99	15.76	15.53	15.58	15.38	12.76	14.26	.....	15.69	15.60	14.19	14.74
18	16.06	15.76	15.54	15.60	15.38	12.97	14.36	.....	15.72	15.63	14.20	14.77
19	16.08	15.77	15.53	15.65	15.43	13.15	14.44	.....	15.75	15.63	14.23	14.79
20	16.06	15.78	15.56	15.67	15.47	13.33	14.52	.....	15.78	15.64	14.24	14.80
21	15.97	15.76	15.57	15.68	15.48	.....	14.59	.....	15.82	15.62	14.23	14.80
22	15.96	15.77	15.57	15.66	15.48	.....	14.66	15.56	15.83	15.60	14.25	14.80
23	15.91	15.75	15.59	15.68	15.45	13.74	14.70	15.58	15.81	15.52	14.27	14.80
24	15.90	15.72	15.61	15.68	15.46	13.83	14.72	15.58	15.84	14.62	14.29	14.79
25	15.93	15.71	15.60	15.68	15.45	13.91	14.73	15.59	15.88	13.71	14.32	14.81
26	15.97	15.75	15.59	15.68	15.47	13.99	14.75	15.62	15.93	13.08	14.33	14.86
27	16.00	15.75	15.63	15.67	15.45	14.02	14.78	15.62	15.97	13.03	14.33	14.86
28	15.98	15.73	15.64	15.69	15.32	14.02	14.82	15.63	15.95	13.24	14.32	14.85
29	15.96	.....	15.63	15.68	15.30	13.77	14.83	15.63	15.82	13.51	14.31	14.84
30	15.94	.....	15.62	15.67	15.37	13.09	14.81	15.63	15.81	13.70	14.29	14.81
31	15.87	.....	15.65	.....	15.41	.....	14.82	15.66	.....	13.74	.....	14.81

28. Ada M. Davis. NE¼NW¼ sec. 1, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	19.67	Apr. 1	18.67	July 8	16.16	Oct. 13	17.01
Feb. 3	19.26	May 1	18.60	Aug. 4	17.42	Nov. 10	15.54
Mar. 4	19.23	June 4	18.71	Sept. 3	17.76	Dec. 2	15.94

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Sedgwick County--Continued

307. J. R. Clark. NW¼NW¼SW¼ sec. 1, T. 25 S., R. 2 W.

Lowest daily water level, in feet below measuring point, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.31	15.59	15.41	15.20	15.34	15.65	14.94	14.80	15.12	15.40	14.44	14.37
2	15.32	15.57	15.39	15.23	15.38	15.66	14.94	14.84	15.10	15.40	14.43	14.38
3	15.33	15.53	15.39	15.27	15.41	15.66	14.46	14.88	15.12	15.41	14.42	14.37
4	15.36	15.51	15.40	15.31	15.43	15.68	14.28	14.93	15.13	15.40	14.42	14.40
5	15.38	15.50	15.39	15.32	15.43	15.68	14.19	14.97	15.13	15.42	14.44	14.47
6	15.39	15.45	15.37	15.35	15.45	15.66	14.13	15.01	15.13	15.42	14.45	14.47
7	15.42	15.45	15.37	15.38	15.47	15.63	14.13	15.04	15.14	15.34	14.49	14.47
8	15.45	15.44	15.36	15.39	15.51	15.58	14.14	15.06	15.15	15.10	14.49	14.48
9	15.48	15.43	15.34	15.39	15.54	15.37	14.15	15.11	15.16	15.01	14.51	14.49
10	15.49	15.43	15.30	15.39	15.56	15.02	14.16	15.12	15.18	14.90	14.54	14.50
11	15.50	15.42	15.21	15.43	15.57	14.85	14.18	15.16	15.20	14.82	14.54	14.50
12	15.47	15.39	15.17	15.43	15.58	14.75	14.18	15.16	15.22	14.80	14.54	14.56
13	15.47	15.40	15.14	15.43	15.60	14.72	14.18	15.15	15.24	14.80	14.52	14.59
14	15.46	15.40	15.11	15.42	15.59	14.66	14.18	15.14	15.28	14.84	14.52	14.61
15	15.45	15.40	.....	15.42	15.59	14.67	14.18	15.14	15.31	14.85	14.49	14.63
16	15.45	15.38	.....	15.40	15.60	14.71	14.18	.....	15.34	14.86	14.47	14.64
17	15.46	15.37	15.08	15.38	15.60	14.72	14.23	.....	15.37	14.88	14.46	14.64
18	15.47	15.41	15.07	15.37	15.60	14.75	14.29	.....	15.39	14.89	14.46	14.66
19	15.48	15.42	15.05	15.36	15.61	14.81	14.33	.....	15.42	14.86	14.49	14.66
20	15.49	15.43	15.04	15.34	15.61	14.85	14.34	.....	15.44	14.82	14.50	14.66
21	15.49	15.43	15.08	15.34	15.61	.....	14.36	.....	15.48	14.80	14.49	14.65
22	15.49	15.43	15.12	15.33	15.61	.....	14.40	15.09	15.48	14.77	14.47	14.65
23	15.49	15.43	15.16	15.32	15.62	14.94	14.44	15.09	15.44	14.70	14.48	14.57
24	15.50	15.43	15.19	15.32	15.62	14.95	14.47	15.08	15.43	14.65	14.46	14.41
25	15.50	15.43	15.16	15.32	15.61	14.97	14.50	15.09	15.44	14.59	14.42	14.31
26	15.50	15.44	15.13	15.32	15.61	14.98	14.52	15.09	15.44	14.53	14.39	14.26
27	15.53	15.44	15.12	15.31	15.61	14.99	14.54	15.09	15.45	14.48	14.38	14.24
28	15.54	15.43	15.12	15.31	15.61	14.97	14.58	15.08	15.46	14.48	14.37	14.20
29	15.55	.....	15.10	15.31	15.62	14.94	14.65	15.09	15.44	14.48	14.36	14.17
30	15.57	.....	15.14	15.31	15.62	14.94	14.70	15.10	15.40	14.51	14.35	14.12
31	15.59	.....	15.18	.....	15.63	.....	14.73	15.12	.....	14.51	.....	14.12

800. City of Wichita. SW cor. sec. 33, T. 26 S., R. 1 E.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	20.46	May 1	20.31	Aug. 4	18.61	Oct. 13	18.57
Feb. 3	20.36	June 4	20.01	28	18.68	Nov. 10	18.37
Mar. 4	20.34	July 8	18.71	Sept. 3	18.67	Dec. 2	18.28
Apr. 1	20.32						

802. City of Wichita. NW cor. sec. 1, T. 27 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.07	May 1	6.75	Aug. 4	6.48	Oct. 13	6.46
Feb. 7	6.36	June 4	5.04	8	6.47	Nov. 10	4.39
Mar. 4	6.86	July 8	4.61	Sept. 3	7.20	Dec. 2	5.95
Apr. 1	6.75						

804. City of Wichita. SE cor. sec. 16, T. 26 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.31	Apr. 1	3.09	July 8	1.87	Oct. 13	3.00
Feb. 4	2.86	May 1	2.80	Aug. 4	3.38	Nov. 10	2.38
Mar. 4	3.13	June 4	2.65	Sept. 3	3.60	Dec. 2	2.44

805. City of Wichita. NW cor. NE¼ sec. 19, T. 26 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.22	Apr. 1	6.94	July 8	5.70	Oct. 13	6.46
Feb. 4	6.60	May 1	6.92	Aug. 4	7.17	Nov. 10	5.97
Mar. 4	7.03	June 4	6.95	Sept. 3	7.43	Dec. 2	6.15

Sedgwick County--Continued

806. City of Wichita. NW cor. SW¼ sec. 16, T. 26 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	18.06	Apr. 1	17.72	July 8	16.39	Oct. 13	16.94
Feb. 14	17.91	May 1	17.78	Aug. 4	16.67	Nov. 10	16.33
Mar. 4	17.91	June 4	17.47	Sept. 3	16.97	Dec. 2	16.28

807. City of Wichita. NW cor. sec. 10, T. 26 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 2	24.04	Apr. 1	23.71	July 8	22.16	Oct. 13	22.87
Feb. 14	23.92	May 1	23.75	Aug. 4	22.25	Nov. 10	22.34
Mar. 4	23.85	June 4	23.39	Sept. 3	22.64	Dec. 2	22.11

808. City of Wichita. SW cor. NW¼ sec. 18, T. 26 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 2	24.41	Apr. 1	24.41	July 8	23.67	Oct. 13	23.76
Feb. 4	24.44	May 1	24.44	Aug. 4	23.77	Nov. 10	23.46
Mar. 4	24.47	June 4	24.21	Sept. 3	23.82	Dec. 2	23.35

809. City of Wichita. NW cor. sec. 21, T. 26 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	18.28	May 1	17.01	Aug. 4	15.57	Oct. 13	15.83
Feb. 3	18.13	June 4	16.66	28	15.76	Nov. 10	15.27
Mar. 4	17.17	July 8	15.43	Sept. 3	15.84	Dec. 2	15.14
Apr. 1	17.44						

810. City of Wichita. NE cor. SE¼ sec. 35, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 3	14.35	Apr. 4	14.05	July 11	11.00	Oct. 10	10.88
10	14.37	11	14.08	18	11.65	17	11.23
17	14.52	18	14.04	25	12.10	24	9.01
24	14.34	25	14.09	Aug. 1	12.43	31	9.84
31	14.36	May 2	13.90	8	12.68	Nov. 7	10.17
Feb. 7	14.06	9	13.61	22	12.88	14	10.94
14	14.10	16	13.69	29	12.94	21	11.38
21	14.14	23	13.75	Sept. 5	11.34	28	11.67
28	14.16	29	13.77	12	11.30	Dec. 5	11.92
Mar. 7	14.17	June 6	13.56	18	12.03	12	12.09
17	13.91	13	10.46	26	12.53	19	12.28
21	13.93	July 1	12.01	Oct. 3	12.31	26	12.01
28	14.01	5	9.39				

811. City of Wichita. SE cor. sec. 33, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 3	9.72	Apr. 4	9.37	July 5	5.46	Oct. 3	8.22
10	9.75	11	9.37	11	6.25	10	7.43
17	9.69	18	9.31	18	6.72	17	7.54
24	9.67	25	9.34	25	7.17	24	7.21
31	9.64	May 2	8.69	Aug. 1	7.47	Nov. 7	6.70
Feb. 7	9.42	9	8.33	8	7.75	14	6.87
14	9.44	16	8.60	22	7.94	21	6.98
21	9.44	23	8.74	29	8.06	28	7.07
28	9.47	29	8.84	Sept. 5	8.20	Dec. 5	7.17
Mar. 17	9.36	June 6	8.51	12	8.29	12	7.17
21	9.35	13	7.19	18	8.40	19	7.32
28	9.37	July 1	7.23	26	8.51	26	7.02

Sedgwick County--Continued

812. City of Wichita. NW cor. sec. 27, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	13.40	Apr. 4	13.09	July 5	9.71	Oct. 10	10.47
10	13.42	11	13.11	11	10.02	17	10.47
17	13.39	14	13.10	18	10.12	24	10.21
24	13.41	18	13.05	25	10.29	31	9.98
31	13.38	25	13.08	Aug. 1	10.39	Nov. 7	9.80
Feb. 7	13.18	May 2	13.01	8	10.56	14	9.90
14	13.25	9	12.64	22	10.74	21	9.98
21	13.21	16	12.65	29	10.82	28	10.04
28	13.24	23	12.66	Sept. 5	10.86	Dec. 5	10.16
Mar. 7	13.24	29	12.66	12	10.87	12	10.16
17	13.10	June 6	12.44	18	11.00	19	10.31
21	13.10	13	11.18	26	11.13	26	10.08
28	13.11	July 1	12.00	Oct. 3	11.02		

813. City of Wichita. SW¼SW¼ sec. 24, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	18.36	Apr. 1	18.31	July 8	15.80	Oct. 13	15.98
Feb. 3	18.39	May 1	18.35	Aug. 4	16.20	Nov. 10	15.57
Mar. 4	18.40	June 4	18.28	Sept. 3	16.40	Dec. 2	15.78

814. City of Wichita. SE cor. sec. 14, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 2	18.11	Apr. 1	18.07	July 8	15.94	Oct. 13	15.41
Feb. 3	18.11	May 1	18.11	Aug. 4	15.61	Nov. 10	14.91
Mar. 4	18.11	June 4	17.95	Sept. 3	15.67	Dec. 2	14.86

815. City of Wichita. NE cor. sec. 17, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 3	15.48	Apr. 4	15.43	July 5	13.80	Oct. 10	13.67
10	15.51	11	15.44	11	13.56	17	13.53
17	15.52	14	15.43	18	13.46	24	13.48
24	15.54	18	15.40	25	13.41	31	13.33
31	15.54	25	15.44	Aug. 1	13.44	Nov. 7	13.19
Feb. 7	15.53	May 2	15.41	8	13.48	14	13.11
14	15.50	9	15.42	22	13.62	21	13.05
21	15.50	16	15.40	29	13.70	28	13.06
28	15.50	23	15.43	Sept. 5	13.69	Dec. 5	13.10
Mar. 7	15.52	29	15.39	12	13.68	12	13.09
17	15.48	June 6	15.37	18	13.75	19	13.19
21	15.45	13	14.71	26	13.80	26	13.10
28	15.45	July 1	14.36	Oct. 3	13.85		

816. City of Wichita. SW cor. sec. 7, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 3	13.43	Apr. 4	13.31	July 5	11.20	Oct. 10	11.84
10	13.44	11	13.30	11	11.20	17	11.70
17	13.50	14	13.34	18	11.26	24	11.55
24	13.51	18	13.28	25	11.40	31	11.27
31	13.51	25	13.31	Aug. 1	11.50	Nov. 7	10.98
Feb. 7	13.47	May 2	13.27	8	11.62	14	10.98
14	13.47	9	13.26	22	11.81	21	10.98
21	13.45	16	13.25	29	11.85	28	10.99
28	13.48	23	13.26	Sept. 5	11.98	Dec. 5	11.04
Mar. 7	13.49	29	13.03	12	12.00	12	11.01
17	13.42	June 6	13.00	18	12.09	19	11.08
21	13.38	13	11.60	26	12.17	26	10.69
28	13.35	July 1	11.97	Oct. 3	12.12		

Sedgwick County--Continued

825. City of Wichita. NE cor. sec. 3, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	15.30	Apr. 1	14.89	July 8	12.82	Oct. 13	13.49
Feb. 3	15.17	May 1	14.77	Aug. 4	13.05	Nov. 10	12.76
Mar. 4	15.08	June 4	14.59	Sept. 3	13.41	Dec. 2	12.64

826. City of Wichita. NE cor. sec. 5, T. 25 S., R. 1 W.

Water level, in feet below measuring point, 1941

Jan. 13	13.86	Mar. 24	13.55	June 16	11.35	Sept. 8	11.72
20	13.81	31	13.61	July 7	10.71	15	12.20
27	13.86	Apr. 14	13.66	14	11.45	Oct. 6	12.62
Feb. 10	13.59	28	13.70	21	11.82	27	10.10
17	13.67	May 12	13.70	28	12.15	Nov. 11	10.68
24	13.70	19	13.76	Aug. 25	12.70	Dec. 1	11.35
Mar. 3	13.72	26	13.78	Sept. 2	12.76	12	11.63
18	13.47	June 3	13.64				

830. City of Wichita. SW cor. sec. 30, T. 25 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 2	30.34	Apr. 1	29.81	July 8	28.18	Oct. 13	29.20
Feb. 4	30.08	May 1	29.84	Aug. 4	29.11	Nov. 10	28.07
Mar. 4	30.04	June 4	29.74	Sept. 3	29.63	Dec. 2	28.08

834. City of Wichita. SW cor. sec. 9, T. 25 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 2	12.64	Apr. 1	12.17	July 8	10.34	Oct. 13	11.29
Feb. 4	12.39	May 1	12.28	Aug. 4	11.57	Nov. 10	10.27
Mar. 4	12.36	June 4	12.44	Sept. 3	12.20	Dec. 2	10.48

838. City of Wichita. NE cor. NW$\frac{1}{2}$ sec. 33, T. 25 S., R. 3 W.

Water level, in feet below measuring point, 1941

Jan. 2	27.88	Apr. 1	27.80	July 8	26.32	Oct. 13	26.64
Feb. 14	27.87	May 1	27.84	Aug. 4	26.74	Nov. 10	26.00
Mar. 4	27.87	June 4	27.85	Sept. 3	27.06	Dec. 2	25.90

840. Owner of property, C. A. Berger; owner of well, City of Wichita. NE cor. sec. 9, T. 25 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 3	13.35	Apr. 11	7.93	July 5	2.97	Oct. 3	7.87
10	13.36	14	7.93	11	3.97	10	6.86
17	13.31	18	7.87	18	4.97	17	6.67
24	13.29	25	7.85	25	5.67	24	6.29
31	13.27	May 2	7.82	Aug. 1	6.17	Nov. 7	5.33
Feb. 7	13.03	9	7.81	8	6.60	14	5.47
14	12.96	16	7.80	22	7.14	21	5.60
21	8.26	23	7.90	29	7.35	28	5.67
28	8.27	29	7.97	Sept. 5	7.50	Dec. 5	5.75
Mar. 17	8.02	June 6	7.91	12	7.65	12	5.82
21	7.96	13	6.64	18	7.78	19	5.96
28	7.94	July 1	6.68	26	7.94	26	5.67
Apr. 4	7.93						

842. City of Wichita. NW cor. sec. 16, T. 25 S., R. 2 W.

Water level, in feet below measuring point, 1941

Jan. 2	7.90	Apr. 1	6.88	July 8	4.45	Oct. 13	6.18
Feb. 4	7.48	May 1	6.87	Aug. 4	6.40	Nov. 10	4.74
Mar. 4	7.27	June 4	6.61	Sept. 3	7.22	Dec. 2	4.99

Sedgwick County--Continued

845. City of Wichita. SW¼SW¼ sec. 5, T. 27 S., R. 1 E.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	15.47	Apr. 1	15.36	July 8	14.32	Oct. 13	14.74
Feb. 4	15.23	May 1	15.38	Aug. 4	15.06	Nov. 10	14.49
Mar. 4	15.43	June 4	15.17	Sept. 3	14.37	Dec. 2	14.87

846. City of Wichita. SW¼SE¼ sec. 6, T. 27 S., R. 1 E.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	17.88	Apr. 1	17.81	July 8	15.96	Oct. 13	16.82
Feb. 4	17.43	May 1	17.88	Aug. 4	17.42	Nov. 10	16.44
Mar. 4	17.87	June 4	17.58	Sept. 3	16.46	Dec. 2	17.10

847. City of Wichita. SW cor. SE¼ sec. 6, T. 27 S., R. 1 E.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	18.47	Apr. 1	18.47	July 8	16.41	Oct. 13	17.84
Feb. 4	18.39	May 1	18.59	Aug. 4	17.76	Nov. 10	16.86
Mar. 4	18.50	June 4	18.27	Sept. 3	18.18	Dec. 2	17.40

870. W. Williams. NW¼NE¼ sec. 18, T. 25 S., R. 2 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.14	Apr. 1	9.24	July 8	7.40	Oct. 13	8.51
Feb. 4	9.66	May 1	9.11	Aug. 4	8.38	Nov. 10	7.49
Mar. 4	9.59	June 4	9.11	Sept. 3	9.18	Dec. 2	7.36

SEWARD COUNTY

By C. C. Williams

Highest and lowest water levels, in feet below measuring point, in 8 wells in Seward County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
15	1	17.13	Nov. 1, 1941	18.20	July 10, 1940
52	1	207.81	Mar. 14, 1941	209.25	June 18, 1941
66	1	216.88	Nov. 1, 1941	218.99	Dec. 17, 1941
106	1	208.60	May 13, 1941	209.22	July 19, 1941
108	1	108.69	Dec. 17, 1941	111.78	Apr. 21, 1941
122	1	204.08	July 19, 1941	205.63	Aug. 5, 1940
159	1	96.14	Jan. 7, 1941	97.25	Dec. 19, 1940
165	1	147.30	Nov. 28, 1941	168.28	Dec. 18, 1941

Net changes in water level in 1941, and net changes in water level for the period of record in 8 wells in Seward County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
15	1.07	-0.05	+0.51
52	1.44	-1.05	- .99
66	2.11	-1.71	-1.43

Seward County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 8 wells in Seward County--Continued.

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
106	0.62	+0.20	+0.22
108	3.09	+2.83	+2.64
122	1.55	+ .26	+ .64
159	1.11	- .80	+ .14
165	20.98	-17.28	-17.36

Water-level measurements

8. Liberal Deep Well Company. NW¼NE¼ sec. 32, T. 34 S., R. 33 W. Measurements discontinued after May 13, 1941.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 7	122.48	Mar. 14	122.89	May 13	121.83
Feb. 5	122.11	Apr. 21	121.94		

15. R. H. Hitch. SE¼SW¼ sec. 21, T. 32 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.46	Mar. 14	17.34	May 13	17.35	Nov. 19	17.46
Feb. 5	17.27	Apr. 21	17.45	Nov. 1	17.13	Dec. 17	17.51

52. Federal Farm Mortgage Co. NW¼NW¼ sec. 22, T. 34 S., R. 32 W.

Water level, in feet below measuring point, 1941

Jan. 7	208.08	Mar. 14	207.81	May 13	208.15	Nov. 1	208.92
Feb. 5	209.10	Apr. 21	208.22	June 18	209.25	28	209.13

60. Lee Swan. NW¼NE¼ sec. 21, T. 33 S., R. 33 W. Measurements discontinued after June 18, 1941. Water levels, in feet below measuring point, 1941: Mar. 14, 182.36; Apr. 21, 182.64; June 18, 182.75.

66. Federal Land Bank. NW¼SW¼ sec. 35, T. 34 S., R. 31 W.

Water level, in feet below measuring point, 1941

Feb. 5	217.28	Apr. 21	217.98	Nov. 1	216.88	Dec. 17	218.99
Mar. 14	217.48	June 18	216.92	28	217.24		

106. Kansas City Life Insurance Company. SW¼SW¼ sec. 8, T. 32 S., R. 34 W.

Water level, in feet below measuring point, 1941

Jan. 7	209.02	Apr. 21	209.13	July 19	209.22	Nov. 1	208.86
Feb. 5	208.76	May 13	208.60	Aug. 15	209.05	19	208.79
Mar. 14	208.84	June 8	208.89	Sept.19	208.89	Dec. 17	208.82

108. C. D. Day. NE¼SE¼ sec. 6, T. 31 S., R. 34 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 7	111.52	Apr. 21	111.78	Nov. 1	108.76
Mar. 14	111.44	Aug. 15	109.56	Dec. 17	108.69

Seward County--Continued

122. Mrs. Flora Atwell. NE¼SE¼ sec. 9, T. 33 S., R. 31 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	205.25	Apr. 21	205.29	July 19	204.08	Nov. 1	204.90
Feb. 5	204.97	May 13	204.97	Aug. 15	204.90	28	204.89
Mar. 14	204.86	June 18	204.83	Sept.19	204.94	Dec. 17	204.99

155. Fred Collingwood. SE¼SE¼ sec. 11, T. 31 S., R. 31 W. Measurements discontinued after July 19, 1941.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 7	157.53	Mar. 14	157.34	May 13	157.52
Feb. 5	157.39	Apr. 21	157.65	July 19	157.61

159. Liberal Gas Company. NW¼NE¼ sec. 3, T. 35 S., R. 34 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	96.14	Apr. 21	96.94	July 19	96.83	Nov. 1	96.84
Feb. 5	97.03	May 13	96.94	Aug. 15	96.98	28	96.86
Mar. 14	97.05	June 18	96.94	Sept.19	97.02	Dec. 17	96.94

165. Griffith and Baughman. SE¼SW¼ sec. 14, T. 31 S., R. 33 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	168.03	Apr. 21	168.21	July 19	167.94	Nov. 1	166.79
Feb. 5	167.72	May 13	167.78	Aug. 15	167.89	28	147.30
Mar. 14	167.78	June 18	167.96	Sept.19	166.58	Dec. 17	150.75

STANTON COUNTY

By B. F. Latta

Highest and lowest water levels, in feet below measuring point, in 5 wells in Stanton County, 1941

Well	Length of record (years)	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
13	2.5	50.60	Sept.18, 1941	52.83	Apr. 23, 1940
47	2.5	70.88	Apr. 23, 1940	71.38	May 12, 1941
62a/	2.5	139.89	June 17, 1940 July 18, 1940	144.32	Mar. 13, 1941
68	2.5	137.45	Apr. 18, 1941	138.03	Aug. 8, 1939
93	2.5	176.18	Oct. 28, 1941	176.60	Oct. 9, 1939
146b/	2.5	44.79	Dec. 16, 1941	46.80	Apr. 22, 1940 May 14, 1940 June 18, 1940

a Pumped considerably since August 1940.
b Measuring point lowered 0.5 foot Oct. 25, 1940.

Stanton County--Continued

Net changes in water level in 1941, and net changes in water level for the period of record in 5 wells in Stanton County

Well	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1941 (feet)	Net rise (+) or net decline (-) for period of record (feet)
13	2.23	+1.92	+1.64
47	.5	- .34	- .37
62	4.43	-2.30	-2.81
68	.58	+ .03	+ .45
93	.42	+ .1	+ .22
146	1.51	+1.35	+1.44

Water-level measurements

13. L. Y. Carrithers. NE¼SE¼ sec. 21, T. 27 S., R. 40 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	52.61	Apr. 18	52.82	July 18	51.52	Oct. 28	50.72
Feb. 6	52.65	May 12	52.71	Aug. 14	50.94	Nov. 18	50.76
Mar. 13	52.78	June 17	52.20	Sept.18	50.60	Dec. 16	50.69

47. Southwestern College. NW¼NE¼ sec. 35, T. 28 S., R. 39 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	70.94	Apr. 18	70.92	June 17	70.94	Nov. 18	71.32
Feb. 6	70.92	May 12	71.38	Oct. 28	71.32	Dec. 2	71.28
Mar. 13	70.97						

62. H. Bearman. SW¼SW¼ sec. 29, T. 28 S., R. 41 W. Water-level measurements resumed in January 1941. Well pumped considerably during 1941.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	141.04	Apr. 18	144.07	Aug. 14	143.96	Nov. 18	143.28
Feb. 6	141.50	May 12	143.95	Sept.18	143.80	Dec. 16	143.34
Mar. 13	144.32	June 17	143.96	Oct. 28	143.65		

68. C. D. Wartman. SW¼SW¼ sec. 29, T. 28 S., R. 42 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	137.56	Apr. 18	137.45	July 18	137.81	Oct. 28	137.72
Feb. 6	137.54	May 12	137.55	Aug. 14	137.70	Nov. 18	137.48
Mar. 13	137.51	June 17	137.99	Sept.18	137.65	Dec. 16	137.53

93. J. Plummer. Center NE¼ sec. 11, T. 29 S., R. 41 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	176.33	Apr. 18	176.31	July 18	176.32	Oct. 28	176.18
Feb. 6	176.39	May 12	176.42	Aug. 14	176.28	Nov. 18	176.29
Mar. 13	176.34	June 17	176.29	Sept.18	176.27	Dec. 16	176.23

146. C. M. Harrison. SW¼SE¼ sec. 27, T. 30 S., R. 43 W.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	46.14	July 18	45.87	Sept.18	45.44	Nov. 18	44.93
Feb. 6	46.22	Aug. 14	45.78	Oct. 28	45.63	Dec. 16	44.79
Mar. 13	46.25						

MINNESOTA

Clay County

By A. C. Byers

Periodic measurements of the water levels in 4 wells in Minnesota were begun in July 1940 by the Federal Geological Survey in cooperation with the North Dakota State Geological Survey and the city of Fargo, North Dakota, in connection with an investigation of the ground-water resources of the Fargo area. The descriptions of the wells and the records for 1940 have been published in Water-Supply Paper 908. During 1941 three new wells in Minnesota were added to the program. These are in the locality known as Pleasant Ridge, which is described in following paragraphs. By the end of the year, water levels were, therefore, being measured weekly in seven wells in Minnesota. About 380 measurements were made by the wetted-tape method by L. K. Wenzel, Ralph Mader, and Alan C. Byers.

The water levels in three of the four wells in which measurements were made throughout the year showed a net decline and the fourth showed a small rise. The average net decline of water level in the 4 wells was 0.61 foot.

The low swell known as Pleasant Ridge extends northward through sections 29 and 32 of T. 139 N., R. 47 W. The material underlying this swell is glacial outwash, the thickness of which is unknown but is at least 100 feet. Cross-bedded sands containing some boulders grade downward into coarse gravel. The superficial Lake Agassiz clay is here very thin, being only 2 to 4 feet thick in some places. The clay has been stripped off in four places where sand pits have been opened. The Fitzgerald, Connelley, and Benedict pits are being worked for sand and gravel; the Wiedemann pit was intended to supply water for irrigation of sugar beets, but proved impractical for the purpose because of sloughing of the sides. The central part of each pit is occupied by a pond, the surface of which is about 20 feet below the surrounding land surface. The ground-water conditions are of the water-table type.

A gravel-packed well, 16 inches in diameter and 114 feet deep is located near the Fitzgerald and Connelley pits, and is used to irrigate sugar beets. Its capacity is about 4,000 gallons a minute. Some water is also pumped from the Benedict pit for irrigation.

In order to get data in regard to the drawdown of water levels during the heavy seasonal pumping, 3 driven wells were installed--one each in the Fitzgerald, Connelley, and Wiedemann pits on the edges of the ponds. As no measurements of water levels have been made previously in that vicinity, an arbitrary datum was established for each well by assuming the water level on July 9 to be at an altitude of 100 feet.

No measurements were made of the pumpage from the sand and gravel deposits, but it is estimated that between 60,000,000 and 80,000,000 gallons was pumped for irrigation in the period from early July until mid-August. The average maximum drawdown due to this pumpage for the 3 observation wells was 3.80 feet. At the end of 1941 the water levels in the 3 wells averaged 1.14 feet below their levels before pumping began.

3. City of Moorhead. NW¼SW¼ sec. 32, T. 140 N., R. 48 W. Water level, Jan. 5, 1941, 36.95 feet below measuring point. (Described in Water-Supply Paper 908).

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	96.62	Mar. 29	97.17	June 22	93.78	Oct. 4	94.15
11	97.82	Apr. 5	97.40	July 6	95.56	11	96.22
18	98.11	12	97.37	26	94.14	18	95.81
26	97.45	20	95.84	Aug. 3	92.35	25	96.10
Feb. 1	98.07	27	95.71	9	93.90	Nov. 9	94.78
8	97.50	May 3	96.03	16	94.11	15	96.55
16	96.80	10	96.36	23	94.75	22	96.75
22	97.57	17	96.13	30	94.71	30	96.30
Mar. 1	97.82	24	96.44	Sept. 6	94.75	Dec. 6	96.59
9	97.83	31	95.01	13	95.33	13	95.96
15	97.65	June 8	95.95	20	93.95	20	96.50
23	96.68	15	94.94	28	93.85	28	95.75

5. W. M. Bailey, 1203 8th St. So., Moorhead. Water level, Jan. 5, 1941, 34.76 feet below measuring point. (Described in Water-Supply Paper 908).

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	95.22	Apr. 5	95.39	July 6	95.33	Oct. 4	95.11
11	95.30	12	95.41	13	95.31	11	95.10
18	95.32	20	95.43	19	95.30	18	95.11
26	95.30	27	95.43	26	95.35	25	95.20
Feb. 1	95.30	May 3	95.40	Aug. 3	95.21	Nov. 2	95.21
8	95.29	10	95.39	9	95.15	8	95.20
16	95.33	17	95.37	16	95.14	15	95.30
22	95.34	24	95.34	23	95.12	22	95.21
Mar. 1	95.33	31	95.27	30	95.09	30	95.35
9	95.31	June 7	95.26	Sept. 6	95.09	Dec. 6	95.27
15	95.35	15	95.34	13	95.08	13	95.25
23	95.54	22	95.27	20	95.09	20	95.24
29	95.35	29	95.34	28	95.11	28	95.28

Clay County--Continued.

7. Andrew Gunderson. SE¼SE¼ sec. 23, T. 140 N., R. 48 W. Water level, Jan. 5, 1941, 42.41 feet below measuring point. (Described in Water-Supply Paper 908).

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	95.69	May 10	95.86	Aug. 9	95.07	Oct. 25	95.81
11	95.70	17	95.77	16	95.07	Nov. 2	95.33
18	95.47	24	95.70	23	95.05	8	95.23
Feb. 1	95.58	31	95.74	30	95.28	15	95.29
8	95.68	June 15	95.86	Sept. 6	95.21	23	95.19
16	95.74	22	95.57	13	95.38	30	95.23
22	95.15	29	95.86	20	95.47	Dec. 6	95.25
Mar. 1	95.83	July 13	95.45	28	95.31	13	95.28
Apr. 20	95.91	19	95.48	Oct. 11	95.31	20	95.29
27	95.73	26	95.21	18	95.34	28	95.30
May 3	95.88	Aug. 3	95.21				

8. NW¼SW¼ sec. 4, T. 140 N., R. 48 W. Water level, Jan. 5, 1941, 21.02 feet below measuring point. (Described in Water-Supply Paper 908).

Water level, in feet above assumed datum, 1941

Jan. 5	95.86	Apr. 5	95.79	July 6	95.76	Oct. 4	95.51
11	95.81	12	96.01	13	95.53	11	95.51
18	95.80	20	95.84	19	95.59	18	95.49
26	96.64	27	95.81	26	95.55	25	95.50
Feb. 1	95.80	May 3	95.86	Aug. 3	95.48	Nov. 2	95.50
8	95.82	10	95.72	9	95.56	9	95.49
16	95.86	17	95.76	16	95.49	15	95.49
22	95.75	24	95.70	23	95.58	23	95.45
Mar. 1	95.86	31	95.72	30	95.51	30	95.43
9	95.82	June 7	95.90	Sept. 6	95.49	Dec. 6	95.38
15	95.83	15	95.90	13	95.52	13	95.47
23	95.75	22	95.78	20	95.54	20	95.44
29	95.80	29	95.80	28	95.45	28	95.35

24. SE¼SW¼ sec. 29, T. 139 N., R. 47 W. In sand pit, on bank of pool. Unused driven observation well, diameter 1¼ inches, depth 7.7 feet below measuring point. Driven June 14, 1941. Measuring point top of coupling on pipe 0.5 foot above pool bank and 101.98 feet above assumed datum. Water level, July 9, 1941, 1.98 feet below measuring point. Water levels affected by pumping of irrigation well about 3,520 feet south.

Water level, in feet above assumed datum, 1941

July 9	100.00	Aug. 1	98.58	Aug. 20	97.25	Sept. 13	97.88
12	99.97	2	98.37	21	97.14	20	98.01
16	100.00	4	98.03	22	97.04	28	98.10
17	99.95	4	98.01	23	96.86	Oct. 4	98.09
18	99.87	5	97.84	25	97.09	11	98.35
19	99.81	6	97.66	26	96.97	18	98.42
21	99.70	7	97.53	27	96.92	25	98.45
22	99.67	8	97.48	28	96.97	Nov. 2	98.56
23	99.64	9	97.47	29	97.11	8	98.61
24	99.59	11	97.55	30	97.22	15	98.64
25	99.54	13	97.54	Sept. 2	97.44	22	98.72
26	99.46	14	97.51	4	97.51	30	98.74
28	99.34	15	97.44	6	97.62	Dec. 13	98.81
29	99.28	16	97.40	8	97.71	20	98.84
30	99.08	18	97.44	10	97.77	28	98.87
31	98.85	19	97.35				

Clay County--Continued.

25. SW¼NE¼ sec. 32, T. 139 N., R. 47 W. In sand pit at edge of pool Unused driven observation well, diameter 1¼ inches, depth 11.7 feet below measuring point. Driven June 14, 1941. Measuring point top of coupling on top of pipe, 3.50 feet above pool bank and 103.16 feet above assumed datum. Water level July 9, 1941, 3.16 feet below measuring point. Water levels affected by pumping of irrigation well about 1,260 feet southwest.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 9	100.00	Aug. 1	97.30	Aug. 20	96.10	Sept.20	97.95
12	99.96	2	97.02	21	96.18	28	98.08
16	99.87	4	96.77	22	96.29	Oct. 4	98.25
17	99.40	4	96.72	23	96.17	11	98.30
18	99.33	5	96.51	25	96.53	18	98.37
19	99.27	6	96.32	26	96.67	25	98.44
21	99.23	7	96.42	27	96.77	Nov. 2	98.52
22	99.29	8	96.17	28	96.86	8	98.52
23	99.09	9	96.12	29	96.97	15	98.63
24	98.98	11	96.74	30	97.06	22	98.67
25	98.65	13	96.45	Sept. 2	97.29	30	98.74
26	98.61	14	96.36	4	97.42	Dec. 6	98.76
28	98.57	15	96.18	6	97.51	13	98.78
29	98.29	16	96.20	8	97.63	20	98.83
30	97.95	18	96.61	10	97.68	28	98.84
31	97.61	19	96.29	13	97.79		

26a. NW¼SE¼ sec. 32, T. 139 N., R. 47 W. In Fitzgerald sand pit, on pool bank. Unused driven observation well, diameter 1¼ inches, depth 9.3 feet below measuring point. Driven June 26, 1941. Measuring point, top of coupling on top of pipe, 0.5 foot above pool bank and 101.04 feet above assumed datum. Water level, July 9, 1941, 1.04 feet below measuring point Water levels affected by pumping of irrigation well about 330 feet northwest.

Water level, in feet above assumed datum, 1941

July 9	100.00	Aug. 1	96.58	Aug. 20	95.95	Sept.13	97.83
12	99.98	2	96.36	21	95.75	20	98.00
16	99.35	4	96.19	22	96.36	28	98.16
17	99.28	4	96.10	23	95.90	Oct. 4	98.49
18	98.67	5	95.87	25	96.61	11	98.35
19	99.23	6	95.72	26	96.76	18	98.44
21	99.22	7	95.95	27	96.87	25	98.53
22	98.95	8	95.59	28	96.98	Nov. 2	98.59
23	98.59	9	95.76	29	97.06	8	98.62
24	98.47	11	96.79	30	97.14	15	98.67
25	98.05	13	95.97	Sept. 2	97.36	22	98.72
26	98.06	14	95.78	4	97.46	30	98.85
28	98.02	15	95.59	6	97.67	Dec. 13	98.85
29	97.90	16	95.63	8	97.68	20	98.90
30	97.30	18	96.13	10	97.72	28	98.88
31	96.99	19	95.69				

NEBRASKA

By H. A. Waite and L. P. Buck

The State-wide program of water-level measurements in wells, begun in 1934, was continued in 1941 by the Federal Geological Survey in cooperation with the Conservation and Survey Division of the University of Nebraska. Records of water level and some interpretation of the fluctuations of the water level in the wells from 1934 through 1940 are given in previous annual volumes of the Geological Survey (Water-Supply Papers 777, 817, 840, 845, 886, and 908).

Measurements of water levels made in 375 observation wells are given on the following pages. Included in this group are 46 wells in Hall County and 2 wells in Merrick County that are being observed through informal cooperation with the Grand Island Water Department; 8 wells in Garden County that are being observed through informal cooperation with the Fish and Wildlife Service, Department of the Interior; and 7 wells in Dawson County, 1 well in Garden County, 1 well in Gosper County, and 30 wells in Keith County that are being observed through informal cooperation with the Central Nebraska Public Power and Irrigation District. Daily tape measurements, furnished by the Nebraska Department of Roads and Irrigation, are given for well 85 in Morrill County. A total of 1,701 individual measurements of water level, most of them made in 1941, are given on the following pages.

The precipitation in Nebraska in 1941 was 24.45 inches, 1.94 inches above normal and 7.20 inches above 1940. As a result, the water levels in most of the observation wells had net rises for the year. The following tables summarize the water-level fluctuations in key wells throughout the State. The average water levels have been recomputed for 1940 using a total of 138 wells instead of 133. The average water levels for 1940 as shown in Water-Supply Paper 908 differ slightly, therefore, from those given in the following table.

Summary of average water levels, in feet above assumed datum planes, in observation wells in Nebraska, October-December 1934-41

	Number of wells	1934 average level	1935 average level	1936 average level	1937 average level
Northeast	28	99.67	99.36	98.98	99.42
Southeast	40	99.81	100.47	99.61	99.25
North-central	33	99.81	100.01	99.77	99.41
South-central	38	99.84	100.11	99.68	99.66
Northwest	15	99.99	100.45	100.05	99.77
Southwest	13	100.02	100.06	100.03	99.88
Entire State	167	99.84	100.08	99.62	99.50

	1938		1939		1940		1941	
	Number of wells	Average level	Number of wells	Average level	Number of wells	Average level	Number of wells	Average level
Northeast	28	99.74	28	99.24	22	99.57	22	100.31
Southeast	36	99.56	40	99.05	36	98.80	33	99.91
North-central	33	99.44	33	99.59	27	99.15	26	99.70
South-central	36	99.66	38	99.68	29	99.76	32	100.05
Northwest	15	100.13	15	99.79	12	99.68	13	99.77
Southwest	12	100.05	13	99.88	12	99.67	9	100.21
Entire State	160	99.68	167	99.46	138	99.34	135	99.98

Summary of changes in average water levels in feet, in observation wells in Nebraska, 1934-41

	1935	1936	1937	1938	1939	1940	1941	1934-41
Northeast	-0.31	-0.38	+0.44	+0.32	-0.50	+0.33	+0.74	+0.64
Southeast	+ .66	- .86	- .36	+ .31	- .51	- .25	+1.11	+ .10
North-central	+ .10	- .24	- .36	+ .03	+ .15	- .44	+ .55	- .21
South-central	+ .27	- .43	- .02	.00	+ .02	+ .08	+ .29	+ .21
Northwest	+ .46	- .40	- .28	+ .36	- .34	- .11	+ .09	- .22
Southwest	+ .04	- .03	- .15	+ .17	- .17	- .21	+ .54	+ .19
Entire State	+ .24	- .46	- .12	+ .18	- .22	- .12	+ .64	+ .14

The records from 1935 through 1937 and during 1939 are based on 167 wells; those in 1938 on 160 wells; those in 1940 on 138 wells; and those in 1941 on 135 wells. The number of wells included in the averages has diminished during the last 3 years because some of the wells went dry, were destroyed, or were otherwise rendered unfit for observation. The table shows that in 1941 the averages of the water levels in the observation wells rose in all 6 sections of the State. There was an average net rise of 0.64 foot in the 135 wells during the year. At the end of 1941, the averages in all sections of the State except the north-central and northwest sections were higher than at the end of 1934. In north-central Nebraska there was an average decline in water level in the 7-year period of 0.21 foot, and in northwest Nebraska there was an average decline of 0.22 foot. For the entire State there was an average net rise of 0.14 foot during the 7-year period.

The records for only 118 of the 135 key wells are complete from 1934 through 1941. Using only the records on these wells, the change in the average water levels for the State in 1941 is computed to be a rise of 0.55 foot and the cumulative net change for the State for the period 1934 through 1941 is computed to be a decline of 0.08 foot. If it is assumed that the average net rise of 0.55 foot recorded in the 118 key wells in 1941 represents the average net fluctuations of the water table over the State, and that the specific yield of the formations in which the water occurs in Nebraska averages 15 percent--that is, that each cubic foot of material will yield or store 0.15 cubic foot of water--then the records indicate a net increase in ground-water storage in 1941 of about 4,000,000 acre-feet. On the same basis, the decrease in ground-water storage in the 7-year period ending with 1941 may be computed to be about 600,000 acre-feet. The precipitation in Nebraska during the 7-year period was about 22.5 inches below average--a deficiency equivalent to about 92,700,000 acre-feet of water. Since 1934 the decrease in ground-water storage has, therefore, been only about 0.6 percent of the deficiency in the precipitation.

During 1941, the water levels in 11 of the 135 observation wells reached new high stages and those in 14 of the wells reached new low stages.

Water levels in wells in the vicinity of Grand Island rose during 1941 as a result of an increase in precipitation. The precipitation for the year at Grand Island was 25.23 inches, 1.83 inches below normal, but 13.32 inches more than in 1940. Because the water-level measurements of the wells in the vicinity of Grand Island are not complete for the last part of the year, the water levels in 1941 in only 22 of the wells are directly comparable to those of 1940. The 22 wells all showed a rise in water level ranging from 0.27 foot to 1.68 feet.

The observation wells, which are listed alphabetically by counties and numerically within each county, have numbers that correspond to those given in Water-Supply Papers 817, 840, 845, 886, and 908. This report gives complete descriptions for only those wells whose records appear for the first time. For most wells the water levels are expressed in feet above an assumed datum, which is 100 feet below the water level on January 1, 1935. The height of the measuring point above datum for wells that

have been established since January 1, 1935, has been interpolated from the average water level in a group of similar wells on a selected date. The water levels are directly comparable even though the measuring point has been changed, because the record is given as a height above a datum that has been referred to one or more bench marks.

Adams County

193. No measurements made in 1941.
448. No measurements made in 1941.

Antelope County

111. No measurements made in 1941.
202. Water level, in feet above datum, 1941: Oct. 17, 99.48.

Arthur County

250. Water level, in feet above datum, 1941: Oct. 26, 98.54.
251. No measurements made in 1941.

Banner County

238. Water level, in feet above datum, 1941: Oct. 25, 102.79.
354. No measurements made in 1941.

Blaine County

210. Water level, in feet above datum, 1941: Oct. 21, 98.95.
211. Water level, in feet above datum, 1941: Oct. 21, 99.49.
237. Water level, in feet above datum, 1941: Oct. 21, 98.71.
433. Water level, in feet above datum, 1941: Oct. 21, 99.76.
434. Water level, in feet above datum, 1941: Oct. 21, 98.72.

Boone County

200. Water level, in feet above datum, 1941: Oct. 14, 99.85.
201. Water level, in feet above datum, 1941: Oct. 14, 99.82.
207. Water level, in feet above datum, 1941: Oct. 14, 100.27.
425. Water level, in feet above datum, 1941: Oct. 14, dry.
426. Water level, in feet above datum, 1941: Oct. 14, 99.91.

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Box Butte County

129. Water level, in feet above datum, 1941: Oct. 20, a/ 99.46.
338. Water level, in feet above datum, 1941: Oct. 20, a/ 99.09.
378. Water level, in feet above datum, 1941: Oct. 20, 99.32.

Boyd County

74. Water level, in feet above datum, 1941: Oct. 18, 100.28.
75. Water level, in feet above datum, 1941: Oct. 18, 98.40.
209. Water level, in feet above datum, 1941: Oct. 18, 100.09.

Brown County

243. No measurements made in 1941.

Buffalo County

52. No measurements made in 1941.
232. Water level, in feet above datum, 1941: Oct. 16, 101.02.
262. Measurements discontinued.
263. Water level, in feet above datum, 1941: Oct. 15, 98.28.
264. No measurements made in 1941.
265. Water level, in feet above datum, 1941: Oct. 15, 100.08.
267. Water level, in feet above datum, 1941: Oct. 15, a/ 97.42.
268. Water level, in feet above datum, 1941: Oct. 15, 97.84.
269. No measurements made in 1941.
270. Water level, in feet above datum, 1941: Oct. 15, a/ 96.43.
272. Water level, in feet above datum, 1941: Oct. 15, a/ 97.29.
273. No measurements made in 1941.
274. Water level, in feet above datum, 1941: Oct. 15, 101.04.
278. Water level, in feet above datum, 1941: Oct. 15, 102.10.
279. Water level, in feet above datum, 1941: Oct. 15, 97.66.

Burt County

63. Water level, in feet above datum, 1941: Oct. 10, 98.46.
64. Old well destroyed. Altitude of measuring point of new well not yet determined.
402. Water level, in feet above datum, 1941: Oct. 10, 100.24.

Butler County

170. Well filled in.

a Lowest observed stage in period of record.

Cass County

16. Water level, in feet above datum, 1941: Oct. 6, 97.68.

18. Water level, in feet above datum, 1941: Oct. 8, a/ 106.42.

Cedar County

65. Water level, in feet above datum, 1941: Oct. 11, 101.72.

66. No measurements made in 1941.

369. Water level, in feet above datum, 1941: Oct. 11, 100.97.

Chase County

152. No measurements made in 1941.

153. Measuring point disturbed. Altitude of new measuring point not yet determined.

Cherry County

115. Water level, in feet above datum, 1941: Oct. 19, b/ 97.71.

116. Water level, in feet above datum, 1941: Oct. 18, 99.31.

118. Water level, in feet above datum, 1941: Oct. 19, 98.31.

256. Water level, in feet above datum, 1941: Oct. 19, b/ 97.23.

257. Water level, in feet above datum, 1941: Oct. 19, 98.92.

312. Water level, in feet above datum, 1941: Oct. 21, 98.09.

399. Water level, in feet above datum, 1941: Oct. 18, 100.22.

431. Water level, in feet above datum, 1941: Oct. 19, 98.56.

Cheyenne County

86. Measurements discontinued.

87. Water level, in feet above datum, 1941: Oct. 25, 100.47.

90. No measurements made in 1941.

91. Measuring point destroyed. Altitude of new measuring point not yet determined.

92. Water level, in feet above datum, 1941: Oct. 25, 100.14.

444a. Replaces old well 444. University of Nebraska. NW¼NW¼ sec. 26, T. 14 N., R. 47 W. Unused driven observation well, diameter 1 inch, depth 29.0 feet. Measuring point, top of pipe, 1.2 feet above land surface and 116.6 feet above datum of old well 444. Water level May 29, 1940, 20.72 feet below measuring point. Water levels, in feet above datum: July 28, 1940, 95.12; Nov. 9, 1940, 94.58; Oct. 25, 1941, 94.24.

a Highest observed stage in period of record.
b Lowest observed stage in period of record.

Colfax County

37. Water level, in feet above datum, 1941: Oct. 9, 98.30.

38. Well destroyed.

332. Water level, in feet above datum, 1941: Oct. 10, 96.25.

343a. Replaces old well 343. University of Nebraska. SE¼SE¼ sec. 2, T. 20 N., R. 2 E., about 40 feet northeast of old well 343. Unused bored observation well, diameter 1½ inches, depth 25.0 feet. Measuring point, top of pipe, 2.5 feet above land surface, and 115.21 feet above datum of old well 343. Water levels, in feet above datum: July 11, 1940, 105.65; Oct. 23, 1940, 104.13; Oct. 10, 1941, 103.58.

Cuming County

61. Water level, in feet above datum, 1941: Oct. 10, 99.55.

69. Water level, in feet above datum, 1941: Oct. 10, a/ 97.56.

Custer County

53. Water level, in feet above datum, 1941: Oct. 16, 99.57.

195. Water level, in feet above datum, 1941: Oct. 16, 98.66.

196. No measurements made in 1941.

219. Water level, in feet above datum, 1941: Oct. 27, 100.74.

220. No measurements made in 1941.

325. Water level, in feet above datum, 1941: Oct. 16, 98.78.

435. Water level, in feet above datum, 1941: Oct. 27, 99.76.

436. Water level, in feet above datum, 1941: Oct. 27, 99.87.

Dakota County

104. No measurements made in 1941.

453. Water level, in feet above datum, 1941: Oct. 11, 98.61.

Dawes County

123. Water level, in feet above datum, 1941: Oct. 20, 101.20.

315. Water level, in feet above datum, 1941: Oct. 20, 108.20.

396. Water level, in feet above datum, 1941: Oct. 20, 100.36.

Dawson County

99. Water level, in feet above datum, 1941: Oct. 22, 99.23.

280. Water level, in feet above datum, 1941: Oct. 22, 100.86.

283. Water level, in feet above datum, 1941: Oct. 22, 100.67.

284. Water level, in feet above datum, 1941: Oct. 22, 99.66.

285. Water level, in feet above datum, 1941: Oct. 22, 99.15.

a Lowest observed stage in period of record.

Dawson County--Continued.

286. Water level, in feet above datum, 1941: Oct. 22, 98.56.

287. Water level, in feet above datum, 1941: Oct. 22, 97.97.

288. Water level, in feet above datum, 1941: Oct. 22, 97.44.

289. Water level, in feet above datum, 1941: Oct. 22, a/ 97.86.

290. Water level, in feet above datum, 1941: Oct. 22, 98.42.

291. Water level, in feet above datum, 1941: Oct. 22, 98.81.

292. Water level, in feet above datum, 1941: Oct. 22, 99.08.

293. Water level, in feet above datum, 1941: Oct. 22, 99.17.

294. Water level, in feet above datum, 1941: Oct. 22, 99.58.

295. Water level, in feet above datum, 1941: Oct. 22, 99.64.

296. Water level, in feet above datum, 1941: Oct. 22, a/ 98.76.

297. Water level, in feet above datum, 1941: Oct. 22, 101.02.

298. Water level, in feet above datum, 1941: Oct. 22, 99.82.

299. No measurements made in 1941.

300. Water level, in feet above datum, 1941: Oct. 22, 99.32.

301.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	b 99.06	May 1	b 98.63	July 30	b 97.42	Oct. 22	98.06
Mar. 4	b 99.02	June 3	b 98.60	Sept. 2	b 97.67	Nov. 5	b 98.27
31	b 98.47	July 2	b 98.02	Oct. 6	b 98.11	28	b 98.37

302.

Water level, in feet above datum, 1941

Jan. 30	b 99.25	May 1	b 98.45	July 30	b 98.61	Oct. 22	98.17
Mar. 4	b 99.21	June 3	b 98.97	Sept. 2	b 96.82	Nov. 5	b 98.35
30	b 98.88	July 2	b 98.25	Oct. 6	b 98.08	28	b 98.51

303.

Water level, in feet above datum, 1941

Jan. 30	b 99.58	May 1	b 99.71	July 30	b 98.28	Nov. 5	b 98.34
Mar. 4	b 99.60	June 3	b 99.75	Sept. 2	b 97.50	28	b 98.60
30	b 99.64	July 2	b 99.01	Oct. 6	b 97.90		

304.

Water level, in feet above datum, 1941

Jan. 30	b 99.08	May 1	b 99.58	July 30	b 98.53	Oct. 22	101.53
Mar. 4	b 99.32	June 3	b 99.80	Sept. 2	b 97.58	Nov. 5	b 97.85
30	b 99.50	July 2	b 99.25	Oct. 6	b 97.55	28	b 98.05

305.

Water level, in feet above datum, 1941

Jan. 30	b 99.08	May 1	b 99.49	July 30	(c)	Oct. 22	99.18
Mar. 4	b 99.11	June 3	b 99.57	Sept. 2	(c)	Nov. 5	b 98.44
30	b 99.33	July 2	b 99.57	Oct. 6	b 98.22	28	b 98.57

306.

Water level, in feet above datum, 1941

Jan. 30	b 97.61	May 1	b 97.98	July 30	b 96.92	Oct. 22	98.20
Mar. 4	b 97.73	June 3	b 98.12	Sept. 2	b 97.00	Nov. 5	b 97.79
30	b 97.86	July 2	b 98.32	Oct. 6	b 97.58	28	b 97.92

a Lowest observed stage in period of record.
b Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.
c Dry.

Dawson County--Continued.

308. Water level, in feet above datum, 1941: Oct. 22, 100.45.

309. Water level, in feet above datum, 1941: Oct. 22, 102.13.

310. No measurements made in 1941.

311. Water level, in feet above datum, 1941: Oct. 22, 102.48.

314. No measurements made in 1941.

317. Water level, in feet above datum, 1941: Oct. 22, 100.77.

318.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	a 99.73	May 1	a100.35	July 30	a 99.85	Oct. 22	100.35
Feb. 3	a 99.91	June 2	a100.10	Sept. 1	a 99.38	Nov. 5	a 99.66
Mar. 3	a101.70	July 2	a100.21	Oct. 6	a 99.40	28	a 99.82
31	a100.13						

319. Water level, in feet above datum, 1941: Oct. 22, 99.92.

Deuel County

94. No measurements made in 1941.

130. Obstruction 62 feet below measuring point.

Dixon County

107. No measurements made in 1941.

333. Water level, in feet above datum, 1941: Oct. 11, dry.

340. Water level, in feet above datum, 1941: Oct. 11, dry.

Dodge County

29. Measurements discontinued.

31. Water level, in feet above datum, 1941: Oct. 8, 102.30.

34. Water level, in feet above datum, 1941: Oct. 9, 98.76.

401. Water level, in feet above datum, 1941: Oct. 8, 99.57.

420. Water level, in feet above datum, 1941: Oct. 9, 100.50.

Douglas County

24. Water level, in feet above datum, 1941: Oct. 8, 100.55.

Dundy County

177. Water level, in feet above datum, 1941: Oct. 28, 98.93.

361. No measurements made in 1941.

380. Water level, in feet above datum, 1941: Oct. 28, 100.19.

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Dundy County--Continued.

445. Water level, in feet above datum, 1941: Oct. 28, a/101.90.

Fillmore County

174. Well filled in to 64 feet below measuring point.

191. Water level, in feet above datum, 1941: Oct. 31, 99.36.

192. Measurements discontinued.

Franklin County

156. Water level, in feet above datum, 1941: Oct. 29, 99.95.

221. Water levels, in feet above datum, 1941: Jan. 21, 99.02; Oct. 29, 99.87.

224. No measurements made in 1941.

Frontier County

135. Measurements discontinued.

136. Water level, in feet above datum, 1941: Jan. 22, 100.05.

Furnas County

145. Water level, in feet above datum, 1941: Oct. 28, 99.54.

147. Water level, in feet above datum, 1941: Oct. 28, b/99.12.

148. Water level, in feet above datum, 1941: Oct. 28, 101.44.

149. No measurements made in 1941.

180. Water level, in feet above datum, 1941: Oct. 29, 99.14.

387. No measurements made in 1941.

388. Water level, in feet above datum, 1941: Oct. 28, 100.70.

395. Water level, in feet above datum, 1941: Oct. 28, 100.15.

Gage County

199. No measurements made in 1941.

230. Water level, in feet above datum, 1941: Nov. 2, 101.02.

231. No measurements made in 1941.

Garden County

3. Well dry throughout 1941.

4. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

a Highest observed stage in period of record.
b Lowest observed stage in period of record.

Garden County--Continued.

4.--Continued.

Water level, in feet above sea level minus 3,000, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	798.84	Apr. 24	800.24	July 18	798.84	Oct. 28	799.19
21	798.84	May 1	800.24	26	798.59	Nov. 6	799.19
30	798.94	15	799.79	Aug. 11	798.34	13	799.21
Feb. 7	799.16	22	799.69	23	798.34	24	799.24
13	799.09	June 3	799.59	Sept. 5	797.89	28	799.25
Mar. 7	799.16	16	799.94	Oct. 9	798.87	Dec. 4	799.29
15	799.09	27	799.24	15	798.89	10	799.29
21	799.69	July 11	798.89	22	798.89	17	799.44
Apr. 2	799.69						

5. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

Water level, in feet above sea level minus 3,800, 1941

Jan. 9	35.28	Mar. 17	37.53	May 23	37.99	July 25	36.13
22	35.28	31	37.90	June 3	37.08	Aug. 11	35.68
30	35.38	Apr. 11	37.77	16	37.63	23	35.73
Feb. 7	35.38	24	38.38	27	37.13	Sept. 5	35.73
13	35.38	May 1	38.18	July 10	36.38	Dec. 10	36.08
Mar. 7	35.38	16	38.03	18	36.43		

12. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

Water level, in feet above sea level minus 3,800, 1941

Jan. 9	44.62	Apr. 24	45.19	July 18	44.82	Oct. 29	44.47
22	44.89	May 1	45.27	25	44.72	Nov. 6	44.47
30	44.89	16	45.32	Aug. 11	44.62	13	44.49
Feb. 7	44.62	23	45.30	25	44.57	24	44.53
12	44.52	June 3	45.17	Sept. 3	44.32	28	44.52
Mar. 7	44.62	16	45.27	Oct. 9	44.35	Dec. 6	44.47
17	44.77	27	44.62	15	44.35	10	44.42
31	44.72	July 10	44.84	22	44.47	17	44.47
Apr. 12	44.97						

17. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

Water level, in feet above sea level minus 3,800, 1941

Jan. 9	26.83	Mar. 17	26.93	May 23	27.32	July 25	26.67
22	26.83	31	27.08	June 3	27.03	Aug. 11	26.53
30	27.03	Apr. 11	27.08	16	27.18	25	26.52
Feb. 7	26.83	24	27.23	27	27.88	Sept. 3	26.48
13	26.93	May 1	27.25	July 10	26.73	Dec. 10	26.98
Mar. 7	26.93	16	27.29	18	26.77		

19. Measurements supplied through courtesy of Fish snd Wildlife Service, U. S. Dept. of the Interior.

Water level, in feet above sea level minus 3,800, 1941

Jan. 9	8.56	Mar. 17	8.96	May 23	9.36	July 25	8.41
22	8.61	31	9.21	June 3	9.11	Aug. 11	8.26
30	8.77	Apr. 11	9.61	16	9.56	25	8.26
Feb. 7	8.71	27	9.61	27	8.91	Sept. 2	7.11
13	8.61	May 1	9.66	July 10	8.86	Dec. 10	8.76
Mar. 7	8.77	16	9.61	18	8.71		

21. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

Garden County--Continued.

21.--Continued.

Water level, in feet above sea level minus 3,700, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	91.49	Mar. 17	91.52	May 23	92.47	July 25	91.54
22	91.59	31	91.84	June 3	92.29	Aug. 11	91.09
30	91.69	Apr. 11	91.91	16	92.94	25	91.04
Feb. 7	91.72	24	92.54	27	92.24	Sept. 2	a 80.99
13	91.69	May 1	92.54	July 10	91.89	Dec. 10	91.64
Mar. 7	91.72	16	92.61	18	91.84		

25. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

Water level, in feet above sea level minus 3,800, 1941

Jan. 9	23.39	Mar. 17	22.44	May 16	23.01	July 25	23.44
22	23.49	31	22.59	June 3	23.37	Aug. 11	23.18
30	23.61	Apr. 2	22.59	16	23.89	25	23.19
Feb. 7	23.64	11	22.69	27	23.34	Sept. 3	23.04
13	23.96	24	22.89	July 10	23.39	Dec. 10	23.74
Mar. 7	22.64	May 1	22.79	18	23.47		

27. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior.

Water level, in feet above sea level less 3,700, 1941

Jan. 8	90.87	Mar. 17	89.64	May 23	89.74	July 25	89.79
21	90.87	21	89.54	June 3	89.69	Aug. 11	89.79
30	91.04	Apr. 11	89.49	16	89.79	23	89.79
Feb. 6	91.04	24	89.69	27	89.74	25	85.69
12	89.84	May 1	89.79	July 10	89.69	Sept. 2	89.59
Mar. 7	89.64	16	89.69	18	89.94	Dec. 10	89.89

96. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet above datum, 1941

Jan. 3	100.61	Apr. 10	100.67	Aug. 4	99.93	Nov. 4	101.03
Feb. 4	100.60	May 4	100.70	Oct. 1	100.66	Dec. 1	100.83
Mar. 3	100.66	June 10	100.73				

218. Water level, in feet above datum, 1941: Oct. 23, 99.83.

326. Water level, in feet above datum, 1941: Oct. 23, 94.95.

Garfield County

55. Water level, in feet above datum, 1941: Oct. 16, b/ 106.27.

Gosper County

182. Measurements discontinued.

183. Water levels, in feet above datum, 1941: Jan. 22, 100.47; Oct. 29, 100.32.

307.

Water level, in feet above datum, 1941

Jan. 30	c 95.50	May 1	c 95.78	July 30	c 96.21	Oct. 22	96.52
Mar. 4	c 95.60	June 3	c 95.99	Sept. 2	c 96.11	Nov. 5	c 96.64
30	c 95.67	July 2	c 96.21	Oct. 6	c 96.41	28	c 96.81

a Accuracy questionable.
b Highest observed stage in period of record.
c Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Gosper County--Continued.

447. Water level, in feet above datum, 1941: Oct. 29, 100.54.

Grant County

215. Water level, in feet above datum, 1941: Oct. 21, 98.19.

216. Water level, in feet above datum, 1941: Oct. 21, 99.50.

Greeley County

206. Water level, in feet above datum, 1941: Oct. 17, 99.75.

347. Water level, in feet above datum, 1941: Oct. 17, 97.94.

423. Water level, in feet above datum, 1941: Oct. 17, 99.16.

Hall County

244. Water level, in feet above datum, 1941: Oct. 15, 99.52.

245.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level
Feb. 5	a 98.97	June 18	a100.77	Oct. 15	99.51
Apr. 18	a 99.42	Aug. 28	a100.07		

246. Water level, in feet above datum, 1941: Oct. 15, 100.03.

247. No measurements made in 1941.

249. Water level, in feet above datum, 1941: Oct. 15, 96.87.

258. Water level, in feet above datum, 1941: Oct. 15, 96.93.

259. Water level, in feet above datum, 1941: Oct. 15, 99.54.

260. Water level, in feet above datum, 1941: Oct. 15, 99.82.

261. No measurements made in 1941.

GI202. Water level, in feet above datum, 1941: June 18, a/100.40.

GI203. Water levels, in feet above datum, 1941: Mar. 26, a/99.80; June 18, a/99.90; July 19, a/100.20; Nov. 12, a/100.41.

GI204. Water levels, in feet above datum, 1941: Mar. 26, a/99.02; June 18, a/99.12; July 19, a/99.37; Nov. 12, a/99.50.

GI206. Water levels, in feet above datum, 1941: Mar. 26, a/99.40; June 18, a/99.75; Nov. 12, a/99.56.

GI207. Water levels, in feet above datum, 1941: Feb. 5, a/97.15; Apr. 18, a/97.40; June 18, a/97.90; Aug. 28, a/97.25.

GI208. Water levels, in feet above datum, 1941: Feb. 5, a/b/96.65; Apr. 18, a/98.05; June 18, a/98.20; Aug. 28, a/97.65.

GI209. Water level, in feet above datum, 1941: Feb. 5, a/ dry.

GI210. Water levels, in feet above datum, 1941: Feb. 5, a/97.40; Apr. 18, a/97.75; June 18, a/98.05; Aug. 28, a/b/95.50.

GI211. Water levels, in feet above datum, 1941: Feb. 5, a/97.42; Apr. 18, a/97.72; June 18, a/97.97; Aug. 28, a/b/97.37.

a Measurement supplied through courtesy of Grand Island Water Department.

b Lowest observed stage in period of record.

Hall County--Continued.

GI212. Water levels, in feet above datum, 1941: Feb. 5, a/97.80; Apr. 18, a/98.15; June 18, a/ 98.30; Aug. 28, a/96.95.

GI214. Water levels, in feet above datum, 1941: Apr. 18, a/94.30; June 18, a/95.45; Aug. 28, a/94.65.

GI215. Water levels, in feet above datum, 1941: Feb. 5, a/97.20; Apr. 18, a/97.75; June 18, a/97.95; Aug. 28, a/b/97.20.

GI216. Water levels, in feet above datum, 1941: Feb. 5, a/97.62; Apr. 18, a/98.32; June 18, a/98.32; Aug. 28, a/97.37.

GI217. Water levels, in feet above datum, 1941: Mar. 26, a/98.65; June 18, a/98.10; July 19, a/97.60; Nov. 12, a/98.47.

GI218. Water levels, in feet above datum, 1941: Mar. 26, a/98.45; June 18, a/98.80; July 19, a/98.60; Nov. 12, a/98.68.

GI219. Water levels, in feet above datum, 1941: Mar. 26, a/101.32; June 18, a/102.77; July 19, a/102.12; Nov. 12, a/101.31.

GI220. Water levels, in feet above datum, 1941: Mar. 26, a/99.75; June 18, a/100.35; July 19, a/100.55; Nov. 12, a/100.14.

GI221. Water levels, in feet above datum, 1941: Mar. 26, a/99.15; June 18, a/97.95; July 19, a/96.85; Nov. 12, a/99.13.

GI222. Water levels, in feet above datum, 1941: Mar. 26, a/98.50; June 18, a/98.55; July 19, a/97.35; Nov. 12, a/98.63.

GI223. Water levels, in feet above datum, 1941: Feb. 5, a/99.37; Apr. 18, a/99.22.

GI224. No measurements made in 1941.

GI225. Water levels, in feet above datum, 1941: Mar. 26, a/99.30; June 18, a/100.15; July 19, a/100.35; Nov. 12, a/99.91.

GI226. Water levels, in feet above datum, 1941: Feb. 5, a/98.50; Apr. 18, a/98.50; June 18, a/96.60; Aug. 28, a/b/94.40.

GI227. Water levels, in feet above datum, 1941: Feb. 5, a/97.87; Apr. 18, a/98.82; June 18, a/98.87; Aug. 28, a/97.67.

GI228. Water level, in feet above datum, 1941: Apr. 18, a/93.59.

GI229. Water levels, in feet above datum, 1941: Apr. 18, a/99.47; June 18, a/100.92; Aug. 28, a/98.52.

GI230. Water levels, in feet above datum, 1941: Feb. 5, a/98.57; Apr. 18, a/99.27; June 18, a/99.62; Aug. 28; a/99.42.

GI231. Water levels, in feet above datum, 1941: Feb. 5, a/97.90; Apr. 18, a/98.65; June 18, a/98.75; Aug. 28, a/97.70.

GI232. Water levels, in feet above datum, 1941: Feb. 5, a/97.32; Apr. 18, a/97.52; June 18, a/97.67; Aug. 28, a/97.49.

GI233. Water levels, in feet above datum, 1941: Feb. 5, a/97.25; Apr. 18, a/97.90; June 18, a/97.95; Aug. 28, a/98.18.

GI234. Water levels, in feet above datum, 1941: Apr. 18, a/99.60; Aug. 28, a/99.60.

GI236. Water levels, in feet above datum, 1941: Feb. 5, a/b/97.85; Apr. 18, a/98.95; June 18, a/99.35; Aug. 28, a/99.80.

GI237. Water levels, in feet above datum, 1941: Feb. 5, a/b/97.92; Apr. 18, a/98.77; June 18, a/99.12; Aug. 28, a/98.77.

GI238. Water levels, in feet above datum, 1941: Feb. 5, a/b/97.95; Apr. 18, a/98.75; June 18, a/99.20; Aug. 28, a/98.25.

GI239. Water levels, in feet above datum, 1941: June 18, a/99.38; July 19, a/99.78; Nov. 12, a/99.41.

a Measurement supplied through courtesy of Grand Island Water Department.

b Lowest observed stage in period of record.

Hall County--Continued.

GI240. Water levels, in feet above datum, 1941: Mar. 26, a/100.48; June 18, a/101.23; July 19, a/101.58; Nov. 12, a/101.04.

GI241. Water levels, in feet above datum, 1941: June 18, a/99.97; July 19, a/100.42; Nov. 12, a/b/97.21.

GI242. Water levels, in feet above datum, 1941: Mar. 26, a/98.75; June 18, a/99.50; July 19, a/99.90; Nov. 12, a/98.74.

GI243. No measurements made in 1941.

GI244. Water levels, in feet above datum, 1941: Mar. 26, a/100.02; June 18, a/100.77; July 19, a/101.17; Nov. 12, a/100.55.

GI246. Water levels, in feet above datum, 1941: Mar. 26, a/100.32; June 18, a/100.97; July 19, a/101.17; Nov. 12, a/100.73.

GI247. Water levels, in feet above datum, 1941: Mar. 26, a/101.33; June 18, a/102.03; July 19, a/101.68; Nov. 12, a/100.68.

GI248. Water levels, in feet above datum, 1941: Mar. 26, a/101.15; June 18, a/101.75; July 19, a/101.65; Nov. 12, a/100.92.

GI249. Water levels, in feet above datum, 1941: Mar. 26, a/101.30; June 18, a/101.95; July 19, a/101.75; Nov. 12, a/101.01.

GI250. Water levels, in feet above datum, 1941: Mar. 26, a/101.55; June 18, a/101.90; July 19, a/101.50; Nov. 12, a/100.52.

GI251. Water levels, in feet above datum, 1941: Mar. 26, a/98.15; June 18, a/98.40; July 19, a/98.95; Nov. 12, a/99.02.

GI252. Water levels, in feet above datum, 1941: Mar. 26, a/97.60; June 18, a/97.85; July 19, a/98.65; Nov. 12, a/98.67.

GI253. Water levels, in feet above datum, 1941: Mar. 26, a/b/97.40; June 15, a/97.75; July 19, a/98.20; Nov. 12, a/98.32.

GI254. Water levels, in feet above datum, 1941: Mar. 26, a/97.05; June 18, a/97.40; July 19, a/98.00; Nov. 12, a/98.07.

GI255. No measurements made in 1941.

Hamilton County

158. Water levels, in feet above datum, 1941: Jan. 21, b/93.58; Oct. 30, 95.40.

159. Measurements discontinued.

160. Water levels, in feet above datum, 1941: Jan. 21, 97.48; Oct. 30, 98.67.

173. Water level, in feet above datum, 1941: Oct. 30, 100.80.

330. No measurements made in 1941.

Harlan County

155. Water levels, in feet above datum, 1941: Jan. 21, 100.35; Oct. 29, 101.31.

222. No measurements made in 1941.

329. Water level, in feet above datum, 1941: Oct. 29, 99.76.

389. Water level, in feet above datum, 1941: Oct. 29, 99.42.

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a Measurement through courtesy of Grand Island Water Department.
b Lowest observed stage in period of record.

Hayes County

141. Water level, in feet above datum, 1941: Oct. 27, 100.98.

142. Water levels, in feet above datum, 1941: Jan. 22, 100.95; Oct. 27, 100.97.

446. Water level, in feet above datum, 1941: Oct. 27, 100.87.

Hitchcock County

140. Water level, in feet above datum, 1941: Oct. 27, 98.77.

178. Water level, in feet above datum, 1941: Oct. 28, 101.35.

362. Water level, in feet above datum, 1941: Oct. 27, 100.13.

Holt County

112. No measurements made in 1941.

113. No measurements made in 1941.

203. Water level, in feet above datum, 1941: Oct. 17, 99.62.

373. Water level, in feet above datum, 1941: Oct. 18, 100.88.

374. Water level, in feet above datum, 1941: Oct. 18, 98.64.

424. Water level, in feet above datum, 1941: Oct. 17, 99.26.

428. Water level, in feet above datum, 1941: Oct. 17, 98.51.

Hooker County

214. Water level, in feet above datum, 1941: Oct. 21, 93.73.

Howard County

46. Water level, in feet above datum, 1941: Oct. 17, 100.73.

51. Water level, in feet above datum, 1941: Oct. 14, 98.30.

59. Water level, in feet above datum, 1941: Oct. 17, 99.09.

98. Water level, in feet above datum, 1941: Oct. 16, 99.67.

346. Water level, in feet above datum, 1941: Oct. 16, 100.59.

Jefferson County

226. Water level, in feet above datum, 1941: Nov. 1, a/ 97.74.

227. No measurements made in 1941.

228. Water level, in feet above datum, 1941: Nov. 1, 98.82.

229. Water level, in feet above datum, 1941: Nov. 1, 99.17.

Johnson County

2. Water level, in feet above datum, 1941: Oct. 7, 99.84.

3. No measurements made in 1941.

a Lowest observed stage in period of record.

Kearney County

181. Water level, in feet above datum, 1941: Oct. 29, a/102.57.

266. Water level, in feet above datum, 1941: Nov. 1, b/97.74.

Keith County

93.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	c100.96	May 6	c101.21	Aug. 5	c100.90	Oct. 22	100.72
28	c101.04	June 6	c101.06	Sept. 3	c100.70	Nov. 4	c100.81
Apr. 12	c101.52	July 1	c101.06	Oct. 1	c100.55	Dec. 1	c100.98

255. Water level, in feet above datum, 1941: Oct. 26, 98.79.

348. No measurements made in 1941.

350.

Water level, in feet above datum, 1941

Feb. 3	c 99.99	May 7	c100.36	Aug. 4	c101.64	Oct. 22	101.02
28	c100.13	June 6	c100.17	Sept. 2	c101.54	Nov. 4	(cd)
Mar. 31	(cd)	July 1	c100.24	Oct. 1	c100.29	Dec. 1	c100.33

351.

Water level, in feet above datum, 1941

Feb. 3	c 99.15	May 7	c 99.25	Oct. 1	c 99.04	Nov. 4	c 99.01
28	c 93.52	Aug. 4	c 99.11	22	99.23	Dec. 1	c 99.06
Apr. 12	c 99.23	Sept. 2	c 99.11				

358. Water level, in feet above datum, 1941: Oct. 25, 97.72.

360. Water level, in feet above datum, 1941: Oct. 26, 99.72.

N1. Water levels, in feet below measuring point, 1941: Jan. 31, c/11.80; Feb. 26, c/11.00; Apr. 4, c/ well submerged.

N4. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	18.92	May 1	19.05	Aug. 1	19.04	Nov. 6	19.18
Feb. 26	18.97	June 5	18.65	Sept. 4	19.11	Dec. 2	19.34
Apr. 12	18.66	July 2	19.02	Oct. 3	19.12		

N5. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	9.60	May 1	9.60	Aug. 1	9.77	Nov. 6	9.89
Feb. 26	9.62	June 5	9.48	Sept. 4	9.90	Dec. 2	b 10.20
Apr. 12	9.66	July 1	9.55	Oct. 3	9.93		

N6. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	5.29	May 1	5.03	Aug. 1	5.75	Nov. 6	5.89
Feb. 26	5.60	June 5	4.78	Sept. 4	5.90	Dec. 2	b 5.95
Apr. 12	5.60	July 2	5.24	Oct. 3	b 5.95		

N7. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

a Highest observed stage in period of record.
b Lowest observed stage in period of record.
c Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.
d Pump operating in well.

Keith County--Continued.

N7.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	10.15	May 1	10.75	Aug. 1	10.82	Oct. 3	a 10.92
Feb. 26	10.85	June 5	10.70	Sept. 4	10.90	Dec. 2	10.81
Apr. 12	10.77	July 2	10.68				

N9. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	13.98	June 5	13.39	Sept. 4	14.32	Nov. 6	14.02
Feb. 26	13.92	July 2	13.41	Oct. 3	14.20	Dec. 2	13.98
May 1	13.33	Aug. 1	13.92				

N11. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	16.51	May 1	a 16.61	Aug. 1	16.37	Nov. 6	16.53
Feb. 26	16.56	June 5	16.52	Sept. 4	16.42	Dec. 2	16.60
Apr. 12	16.58	July 2	16.43	Oct. 3	16.48		

N18. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	(b)	May 1	34.01	Aug. 2	34.17	Nov. 6	34.09
Feb. 26	34.10	June 6	33.99	Sept. 4	a 35.19	Dec. 2	34.09
Apr. 12	34.00	July 2	34.12	Oct. 3	34.57		

N25. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 2	36.26	Apr. 7	36.34	July 5	36.40	Oct. 1	36.37
Feb. 4	36.31	May 1	36.35	Aug. 4	36.41	Nov. 4	36.50
Mar. 3	36.31	June 10	36.38	Sept. 2	36.43	Dec. 1	a 36.51

N35. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 2	7.64	Apr. 7	7.74	July 5	7.68	Oct. 1	7.84
Feb. 4	7.67	May 2	7.57	Aug. 4	7.78	Nov. 4	7.87
Mar. 3	7.69	June 10	7.61	Sept. 2	7.88	Dec. 1	a 7.90

N37. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District

Water level, in feet below measuring point, 1941

Jan. 2	15.64	Apr 9	10.67	July 5	11.55	Oct. 1	12.82
Feb. 4	14.54	May 2	c 10.44	Aug. 4	12.95	Nov. 4	12.32
Mar. 3	12.08	June 10	10.60	Sept. 2	14.05	Dec. 1	11.56

N41. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	83.24	May 1	83.29	Aug. 1	83.39	Nov. 6	83.36
Feb. 26	83.29	June 5	83.34	Sept. 4	a 83.40	Dec. 2	83.34
Apr. 4	83.33	July 1	83.37	Oct. 3	83.38		

a Lowest observed stage in period of record.
b Well recently submerged.
c Highest observed stage in period of record.

Keith County--Continued.

N42. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	89.38	May 1	91.50	Aug. 2	92.45	Nov. 6	92.03
26	89.52	June 5	92.33	Sept. 4	92.32	Dec. 2	92.02
Apr. 12	91.50	July 2	92.32	Oct. 3	92.00		

S10. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	22.76	May 5	22.59	Aug. 1	22.27	Nov. 5	(a)
Feb. 26	22.91	June 6	21.55	Sept. 4	22.79	Dec. 2	(a)
Apr. 12	22.76	July 2	22.05	Oct. 3	23.05		

S16. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Feb. 5	188.39	May 5	188.58	Aug. 1	188.70	Nov. 5	188.80
26	188.81	June 6	188.60	Sept. 4	188.71	Dec. 1	188.81
Apr. 12	188.70	July 2	188.85	Oct. 3	188.65		

S18. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	162.78	May 1	162.70	Aug. 1	162.82	Nov. 5	162.85
Feb. 26	162.79	June 5	162.69	Sept. 4	163.78	Dec. 1	162.82
Apr. 4	162.82	July 2	162.98	Oct. 3	b163.79		

S19. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	167.92	May 1	167.85	Aug. 1	168.06	Nov. 5	168.05
Feb. 26	167.93	June 5	167.93	Sept. 4	168.04	Dec. 1	168.00
Apr. 4	168.12	July 2	167.95	Oct. 1	168.00		

S20. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 31	183.27	May 2	183.08	Aug. 4	183.34	Nov. 4	183.16
Mar. 3	183.22	June 10	183.09	Sept. 2	183.04	Dec. 1	183.34
Apr. 7	183.37	July 3	183.40	Oct. 1	183.05		

S21. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 2	105.62	Apr. 7	105.70	July 3	105.70	Oct. 1	105.46
Feb. 4	105.61	May 2	c104.36	Aug. 4	105.69	Nov. 4	105.60
Mar. 3	105.69	June 10	105.60	Sept. 2	105.48	Dec. 1	105.67

S22. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 2	107.80	Apr. 10	107.74	July 3	107.97	Oct. 1	107.79
Feb. 4	107.79	May 2	107.79	Aug. 4	107.85	Nov. 4	107.76
Mar. 3	b108.15	June 12	107.88	Sept. 2	107.73	Dec. 1	107.97

a Dry.
b Lowest observed stage in period of record.
c Highest observed stage in period of record.

Keith County--Continued.

S23. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	113.65	Apr. 9	113.42	July 3	113.71	Oct. 1	113.57
Feb. 4	113.58	May 5	113.66	Aug. 4	113.67	Nov. 4	113.49
Mar. 3	a113.79	June 12	113.68	Sept. 2	113.52	Dec. 1	113.39

S24. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 2	60.50	Apr. 10	60.67	July 3	61.05	Oct. 1	61.23
Feb. 4	60.48	May 5	60.75	Aug. 4	61.11	Nov. 4	61.35
Mar. 3	60.78	June 12	60.80	Sept. 2	61.15	Dec. 1	a 61.46

S26. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Feb. 3	16.37	May 6	15.91	Aug. 4	17.20	Nov. 4	16.54
28	16.16	June 6	16.46	Sept. 2	a 17.48	Dec. 1	16.25
Apr. 12	16.14	July 1	16.76	Oct. 1	16.85		

S27. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Feb. 3	13.55	May 6	13.50	Aug. 4	13.67	Nov. 4	13.31
28	13.33	June 6	13.70	Sept. 2	13.82	Dec. 1	13.86
Apr. 12	13.60	July 1	13.55	Oct. 1	13.75		

S31. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
Jan. 2	94.54	Mar. 3	95.50	May 2	95.40
Feb. 4	a 95.53	Apr. 10	95.40		

S32. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	a 59.19	Apr. 7	59.14	July 3	a 59.19	Oct. 1	59.05
Feb. 4	a 59.19	May 2	59.08	Aug. 4	59.12	Nov. 4	59.16
Mar. 3	59.18	June 10	59.15	Sept. 2	59.00	Dec. 1	59.18

S35. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Apr. 12	167.01	Aug. 2	167.10	Oct. 3	167.09	Dec. 1	167.09
May 5	166.89	Sept. 5	167.12	Nov. 4	167.10		

a Lowest observed stage in period of record.

Keyapaha County

375. Water level, in feet above datum, 1941: Oct. 18, 99.30.

Kimball County

88. Water levels, in feet above datum, 1941: Oct. 25, 99.68; Nov. 28, a/99.80; Dec. 23, a/99.82.

89. Water level, in feet above datum, 1941: Oct. 25, 100.10.

327. Water level, in feet above datum, 1941: Oct. 25, b/98.16.

344. Measurements discontinued.

Knox County

67. Water level, in feet above datum, 1941: Oct. 11, 98.46.

71. Water level, in feet above datum, 1941: Oct. 18, 99.87.

335. Water level, in feet above datum, 1941: Oct. 18, 97.29.

336. Water level, in feet above datum, 1941: Oct. 18, 101.51.

370. Water level, in feet above datum, 1941: Oct. 11, 97.42.

429. Oct. 18, 1941: Insufficient water in well to permit measurement.

Lancaster County

1. No measurements made in 1941.

13. Water level, in feet above datum, 1941: Oct. 4, 98.19.

14. Water level, in feet above datum, 1941: Oct. 6, 98.67.

366. Water level, in feet above datum, 1941: Nov. 3, c/104.17.

367. No measurements made in 1941.

Lincoln County

131. Water level, in feet above datum, 1941: Oct. 22, 101.73.

133. No measurements made in 1941.

134. Water levels, in feet above datum, 1941: Jan. 22, 100.55; Oct. 27, 100.61.

143. Water levels, in feet above datum, 1941: Jan. 22, 101.12; Oct. 27, c/101.16.

144. Water levels, in feet above datum, 1941: Jan. 22, b/98.97; Oct. 27, 99.74.

241.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	d 99.46	Apr. 30	d 99.89	July 28	d 98.73	Oct. 22	98.92
Mar. 1	d 99.40	May 30	d 99.32	Aug. 30	db 98.14	Nov. 4	d 98.91
29	d 99.39	June 30	d 98.84	Oct. 7	d 99.01	29	d 98.94

a Measurements supplied by F. C. Foley, U. S. Geological Survey.
b Lowest observed stage in period of record.
c Highest observed stage in period of record.
d Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Lincoln County--Continued.

242.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	a101.93	Apr. 30	a102.67	July 28	ac102.99	Oct. 27	102.42
Mar. 3	a102.23	May 31	a102.38	Aug. 29	a102.12	Nov. 1	a102.54
30	a102.36	June 30	a102.35	Oct. 3	a102.26	Dec. 1	a102.85

252. Water level, in feet above datum, 1941: Oct. 27, b/99.00.

253. Water level, in feet above datum, 1941: Oct. 27, b/99.07.

383. No measurements made in 1941.

384. Water level, in feet above datum, 1941: Oct. 27, 100.59.

385. Water level, in feet above datum, 1941: Oct. 27, 99.48.

405.

Water level, in feet above datum, 1941

Feb. 3	ab 99.03	May 6	a 99.60	Aug. 5	a 99.98	Oct. 22	100.77
28	ac101.84	June 11	a100.42	Sept. 3	a100.31	Nov. 6	a100.00
Apr. 15	a 99.21	July 1	a100.47	Oct. 6	a100.07	Dec. 4	a 99.66

406. Water level, in feet above datum, 1941: Oct. 22, 99.91.

E26. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Feb. 3	b 11.30	May 7	11.03	Aug. 5	10.29	Nov. 5	10.58
28	11.22	June 11	10.75	Sept. 3	10.44	Dec. 4	10.79
Apr. 11	11.28	July 1	10.48	Oct. 6	10.18		

E27. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Feb. 3	10.79	May 7	10.59	Aug. 5	9.91	Nov. 5	9.91
28	10.77	June 11	10.57	Sept. 3	10.18	Dec. 4	10.02
Apr. 11	10.81	July 1	10.26	Oct. 6	c 9.78		

E38. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Feb. 3	13.39	May 7	13.13	Aug. 5	13.57	Nov. 4	13.33
28	13.27	June 6	13.31	Sept. 3	13.71	Dec. 4	13.12
Apr. 11	13.20	July 1	13.38	Oct. 1	13.68		

JS-1. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	35.12	Mar. 30	32.61	July 29	30.81	Nov. 4	30.00
Feb. 3	34.03	May 31	31.37	Aug. 30	30.77	29	29.91
Mar. 3	33.26	July 1	30.91	Oct. 7	30.32	Dec. 31	c 29.88

JS-2. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	23.38	May 1	20.52	July 29	19.93	Nov. 4	19.29
Feb. 3	22.55	31	20.14	Aug. 30	20.32	29	c 19.24
Mar. 3	21.84	July 1	19.97	Oct. 7	19.63	Dec. 31	19.25
30	21.17						

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.
b Lowest observed stage in period of record.
c Highest observed stage in period of record.

Lincoln County--Continued.

JS-3. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	29.91	May 1	27.71	July 29	27.23	Nov. 4	27.02
Feb. 3	29.15	June 2	27.35	Aug. 30	27.45	29	a 27.01
Mar. 3	28.74	July 1	27.06	Oct. 7	27.19	Dec. 31	a 27.01
31	28.30						

JS-4. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	19.69	May 1	17.66	July 29	17.44	Nov. 4	17.25
Feb. 3	18.79	June 2	17.28	Aug. 30	17.88	29	17.26
Mar. 3	18.48	July 1	a 17.09	Oct. 7	17.45	Dec. 31	17.32
31	18.14						

U12. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	15.14	Apr. 30	13.31	July 28	13.59	Nov. 1	13.62
Feb. 3	14.54	May 31	13.70	Aug. 29	15.33	Dec. 1	13.23
Mar. 3	14.05	June 30	13.99	Oct. 3	14.26	31	a 13.05
30	13.68						

U14. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	9.14	Apr. 30	7.52	July 28	7.18	Nov. 1	7.86
Feb. 3	8.65	May 31	7.52	Aug. 29	a 7.13	Dec. 1	7.73
Mar. 3	8.16	June 30	7.60	Oct. 3	8.11	31	7.60
30	8.03						

U21. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	13.52	Apr. 30	11.93	July 30	11.79	Nov. 1	a 11.85
Feb. 3	12.93	May 31	12.12	Aug. 29	12.26	Dec. 1	11.93
Mar. 3	12.54	June 30	12.09	Oct. 3	11.96	31	11.84
30	12.35						

U22. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	8.98	Apr. 30	5.73	July 30	a 5.50	Nov. 1	6.60
Feb. 3	7.93	May 31	5.88	Aug. 29	6.23	Dec. 1	6.91
Mar. 3	6.99	June 30	6.08	Oct. 3	6.03	31	6.97
30	6.35						

U32. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	16.51	May 1	15.69	July 30	15.55	Nov. 1	14.94
Feb. 3	16.28	31	15.73	Aug. 30	15.53	Dec. 1	14.81
Mar. 3	16.12	July 1	15.85	Oct. 7	15.04	31	a 14.63
Mar. 30	15.98						

a Highest observed stage in period of record.

Lincoln County--Continued.

U33. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	37.72	May 1	36.25	July 30	35.40	Nov. 1	34.35
Feb. 3	37.43	31	35.96	Aug. 30	35.19	Dec. 1	34.03
Mar. 3	37.12	July 1	35.66	Oct. 7	34.65	31	a 33.72
30	36.75						

U34. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	18.37	May 1	17.98	July 30	17.95	Nov. 1	17.42
Feb. 3	18.32	31	18.05	Aug. 30	17.84	Dec. 1	17.36
Mar. 3	18.25	July 1	18.00	Oct. 7	17.44	31	a 17.23
30	18.17						

U35. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	10.49	May 1	8.44	July 30	7.71	Nov. 1	7.05
Feb. 3	9.92	31	8.16	Aug. 30	7.78	Dec. 1	6.82
Mar. 3	9.50	July 1	7.80	Oct. 7	7.30	31	a 6.57
30	9.03						

U38. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	11.06	Mar. 31	9.62	July 1	8.85	Nov. 4	a 8.46
Feb. 3	10.37	May 1	9.13	Aug. 30	9.34	29	8.49
Mar. 3	10.00	31	8.92	Oct. 7	8.80	Dec. 31	8.54

U40. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	21.31	Mar. 31	19.74	July 1	18.33	Oct. 7	17.90
Feb. 3	20.56	May 1	19.20	29	17.73	Nov. 4	17.88
Mar. 3	20.06	31	18.61	Sept. 1	a 17.57	29	17.82

U42. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	20.29	Mar. 31	19.25	July 29	a 16.18	Nov. 4	17.58
Feb. 3	19.78	May 1	18.74	Sept. 1	16.75	29	17.67
Mar. 3	19.46	July 1	16.20	Oct. 7	17.30		

U43. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below measuring point, 1941

Jan. 3	41.22	Mar. 31	38.63	July 1	37.80	Oct. 7	37.83
Feb. 3	39.59	May 1	38.22	30	a 37.19	Nov. 4	37.47
Mar. 3	38.95	June 2	38.15	Sept. 1	37.67	29	37.28

U50. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

a Highest observed stage in period of record.

Lincoln County--Continued.

U50.--Continued.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.49	May 1	8.40	July 29	8.85	Nov. 4	7.83
Feb. 3	9.74	31	8.30	Aug. 30	8.79	29	a 7.79
Mar. 3	9.42	July 1	8.26	Oct. 7	8.11	Dec. 31	a 7.79
31	9.02						

Logan County

404. Water level, in feet above datum, 1941: Oct. 27, 99.90.

Loup County

234. No measurements made in 1941.

345. Water level, in feet above datum, 1941: Oct. 16, 99.99.

422. Water level, in feet above datum, 1941: Oct. 16, a/103.72.

McPherson County

254. Water level, in feet above datum, 1941: Oct. 27, b/99.30.

Madison County

108. Water level, in feet above datum, 1941: Oct. 17, 99.71.

109. Water level, in feet above datum, 1941: Oct. 17, 99.84.

110. Water level, in feet above datum, 1941: Oct. 14, 99.76.

334. Water level, in feet above datum, 1941: Oct. 14, 99.74.

Merrick County

42. Water level, in feet above datum, 1941: Oct. 9, 100.78.

48. Water level, in feet above datum, 1941: Oct. 14, 99.56.

49. Water level, in feet above datum, 1941: Oct. 14, 99.67.

50. Water level, in feet above datum, 1941: Oct. 14, 100.30.

GI200. Water levels, in feet above datum, 1941: Mar. 26, c/101.80; June 18, c/103.10; July 19, c/102.25; Nov. 12, c/101.67.

GI201. Water levels, in feet above datum, 1941: Mar. 26, c/101.67; July 19, c/102.27; Nov. 12, c/101.21.

Morrill County

84. Water level, in feet above datum, 1941: Oct. 23, 100.43.

85. Measurements supplied through courtesy of Nebraska Department of Roads and Irrigation.

a Highest observed stage in period of record.
b Lowest observed stage in period of record.
c Measurement supplied through courtesy of Grand Island Water Department.

Morrill County--Continued.

85.--Continued.

Water level, in feet above datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	100.05	99.94	99.98	100.23	100.08	99.54	99.74	99.22	99.43	100.14	100.31	100.13
2	100.06	99.95	99.98	100.17	100.07	99.48	99.75	99.23	99.43	100.14	100.33	100.13
3	100.04	99.95	99.99	100.18	100.06	99.46	99.75	99.24	99.42	100.17	100.31	.....
4	100.02	99.96	100.03	100.16	100.04	99.44	99.76	99.23	99.42	100.16	100.32	.....
5	100.00	99.97	100.04	100.17	100.02	99.43	99.73	99.21	99.41	100.16	100.32	100.13
6	99.97	99.98	100.03	100.18	99.99	99.42	99.70	99.19	99.41	100.19	100.31	.....
7	99.95	99.98	100.04	100.10	99.98	99.42	99.67	99.16	99.39	100.19	100.31	.....
8	99.93	99.97	100.05	100.07	99.97	99.53	99.65	99.13	99.42	100.19	100.29	.....
9	99.92	99.97	100.04	100.06	99.96	99.87	99.63	99.11	99.44	100.19	100.29	.....
10	99.92	99.96	100.04	100.05	99.94	100.17	99.60	99.09	99.46	.....	100.30	.....
11	99.94	99.95	100.01	100.02	99.93	100.30	99.58	99.10	99.50	100.19	100.29	100.11
12	99.94	99.94	99.97	99.99	99.93	100.37	99.68	99.11	99.51	.....	100.29	.....
13	99.94	99.93	99.96	100.03	99.89	100.40	99.71	99.11	99.50	.....	100.25	100.12
14	99.95	99.93	99.93	100.14	99.86	100.42	99.70	99.10	99.53	.....	100.26	.....
15	99.94	99.93	99.91	100.15	99.83	100.44	99.70	99.10	99.56	.....	100.25	.....
16	99.93	99.92	99.89	100.19	99.88	100.38	99.65	99.10	99.57	100.24	100.27	100.10
17	99.93	99.92	99.89	100.18	99.86	100.34	99.63	99.14	99.58	.....	100.23	.....
18	99.94	99.92	99.88	100.33	99.82	100.27	99.60	99.17	99.60	.....	100.21	100.10
19	99.92	99.91	99.87	100.43	99.78	100.21	99.57	99.20	99.60	.....	100.22	.....
20	99.92	99.91	99.87	100.48	99.77	100.13	99.53	99.22	99.61	.....	100.15	.....
21	99.91	99.90	99.86	100.46	99.76	100.09	99.49	99.28	99.60	100.21	100.16	.....
22	99.92	99.90	99.87	100.38	99.74	100.01	99.45	99.32	99.73	100.21	100.15	.....
23	99.92	99.90	99.91	100.34	99.72	99.97	99.39	.....	99.80	.....	100.15	.....
24	99.92	99.89	99.92	100.28	99.70	99.91	99.37	.....	99.89	.....	100.16	.....
25	99.91	99.89	99.96	100.24	99.67	99.93	99.33	99.41	99.95	100.20	100.12	.....
26	99.90	99.88	100.04	100.18	99.64	99.93	99.29	99.43	99.96	100.30	100.13	.....
27	99.89	99.88	100.09	100.15	99.62	99.87	99.27	99.44	99.98	100.29	100.14	.....
28	99.90	99.92	100.18	100.14	99.59	99.85	99.24	99.45	100.00	100.29	100.12	.....
29	99.91	.....	100.23	100.13	99.57	99.81	99.22	99.45	100.10	100.32	100.13	.....
30	99.92	.....	100.26	100.10	99.56	99.77	99.20	99.44	100.11	100.35	100.12	.....
31	99.93	.....	100.23	.....	99.55	.....	99.19	.....	.....	100.33	.....	.....

97. Water level, in feet above datum, 1941: Oct. 23, 99.31.

Nance County

43. Water level, in feet above datum, 1941: Oct. 9, 100.49.

44. Measurements discontinued.

45. Measurements discontinued.

371. Water level, in feet above datum, 1941: Oct. 14, 98.43.

Nemaha County

11. Water level, in feet above datum, 1941: Oct. 7, 104.44.

Nuckolls County

164. Water levels, in feet above datum, 1941: Jan. 21, 99.27; Oct. 31, 100.69.

165. Water level, in feet above datum, 1941: Nov. 1, 95.33.

393. Water level, in feet above datum, 1941: Oct. 31, 99.34.

407. No measurements made in 1941.

Otoe County

8. Water level, in feet above datum, 1941: Oct. 7, 101.77.

9. Water level, in feet above datum, 1941: Oct. 7, 101.50.

10. Water level, in feet above datum, 1941: Oct. 7, 97.71.

Pawnee County

4. No measurements made in 1941.

Perkins County

151. Water levels, in feet above datum, 1941: Jan. 22, 102.09; Oct. 26, 102.03.

Phelps County

157. Water levels, in feet above datum, 1941: Jan. 22, 98.75; Oct. 29, 98.92.

275. Water level, in feet above datum, 1941: Oct. 16, 99.32.

276. Water level, in feet above datum, 1941: Oct. 16, 99.09.

277. No measurements made in 1941.

Pierce County

70. Water level, in feet above datum, 1941: Oct. 18, 99.58.

Platte County

39. Water level, in feet above datum, 1941: Oct. 9, 102.07.

40. Water level, in feet above datum, 1941: Oct. 9, 100.09.

41. Water level, in feet above datum, 1941: Oct. 9, 99.65.

342. Water level, in feet above datum, 1941: Oct. 10, 98.07.

368. Water level, in feet above datum, 1941: Oct. 10, 105.38.

Redwillow County

137. Water level, in feet above datum, 1941: Oct. 28, 101.04.

139. Water level, in feet above datum, 1941: Oct. 28, 99.51.

179. Water level, in feet above datum, 1941: Oct. 28, a/99.26.

Richardson County

No measurements were made on the following wells in Richardson County in 1941: 1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 410, and 417.

a Lowest observed stage in period of record.

Richardson County--Continued.

5. Water level, in feet above datum, 1941: Oct. 6, 100.86.

7. Water level, in feet above datum, 1941: Oct. 7, 103.02.

408. Water level, in feet above datum, 1941: Oct. 7, 98.19.

416. Water level, in feet above datum, 1941: Oct. 7, 109.99.

418. Water level, in feet above datum, 1941: Oct. 7, 101.09.

419. Water level, in feet above datum, 1941: Oct. 7, 99.60.

Rock County

117. Water level, in feet above datum, 1941: Oct. 18, 100.67.

198. No measurements made in 1941.

Saline County

194. Water level, in feet above datum, 1941: Oct. 4, 101.24.

341. Water level, in feet above datum, 1941: Oct. 4, 97.09.

Sarpy County

26a. Replaces old well 26. University of Nebraska. NE¼NW¼ sec. 26, T. 13 N., R. 13 E. Unused driven observation well, diameter 1¼ inches, depth 27 feet. Measuring point, top of pipe, 2.0 feet above land surface and 115.47 feet above datum. Water level May 6, 1940, 17.03 feet below measuring point. Water levels, in feet above datum: July 9, 1940, 103.85; Oct. 18, 1940, 103.02; Oct. 8, 1941, 105.61.

27. No measurements made in 1941.

323. Water level, in feet above datum, 1941: Oct. 8, a/92.15.

Saunders County

19. Water level, in feet above datum, 1941: Oct. 6, 100.18.

21. Water level, in feet above datum, 1941: Oct. 6, 100.19.

22. Water level, in feet above datum, 1941: Oct. 6, 99.74.

331. Water level, in feet above datum, 1941: Oct. 6, 102.04.

Scotts Bluff County

240. Measurements discontinued.

438. Water level, in feet above datum, 1941: Oct. 24, 101.15.

439. Water level, in feet above datum, 1941: Oct. 24, 100.70.

440. Water level, in feet above datum, 1941: Oct. 24, 100.45.

441. No measurements made in 1941.

442. Water level, in feet above datum, 1941: Oct. 24, 100.88.

a Lowest recorded stage in period of record.

Seward County

171. Water level, in feet above datum, 1941: Oct. 4, 99.58.
172. Water level, in feet above datum, 1941: Oct. 4, 100.32.

Sheridan County

120. Water level, in feet above datum, 1941: Oct. 20, 99.53.
217. Water level, in feet above datum, 1941: Oct. 21, a/97.36.
376. Water level, in feet above datum, 1941: Oct. 20, 100.15.
379. Water level, in feet above datum, 1941: Oct. 20, 99.32
432. Water level, in feet above datum, 1941: Oct. 20, 100.57.

Sherman County

58. Water level, in feet above datum, 1941: Oct. 16, 100.64.

Sioux County

81. Water level, in feet above datum, 1941: Oct. 20, 99.69.
125. No measurements made in 1941.
377. Water level, in feet above datum, 1941: Oct. 20, 101.68.

Stanton County

208. Measurements discontinued.
421. No measurements in 1941.

Thayer County

166. Water level, in feet above datum, 1941: Nov. 1, a/99.32.
187. Water level, in feet above datum, 1941: Oct. 31, 99.29.
452. Water level, in feet above datum, 1941: Oct. 31, 99.77.

Thomas County

212. No measurements made in 1941.
213. Water level, in feet above datum, 1941: Oct. 21, 99.77.

Thurston County

60. Water level, in feet above datum, 1941: Oct. 10, 100.64.
102. No measurements made in 1941.
103. Water level, in feet above datum, 1941: Oct. 10, 98.03.

a Lowest observed stage in period of record.

Valley County

54. Water level, in feet above datum, 1941: Oct. 16, 102.01.

56. Water level, in feet above datum, 1941: Oct. 16, 102.86.

57. Water level, in feet above datum, 1941: Oct. 17, 104.16.

Washington County

32. Water level, in feet above datum, 1941: Oct. 8, 102.68.

33. Water level, in feet above datum, 1941: Oct. 8, 98.87.

Wayne County

100. Water level, in feet above datum, 1941: Oct. 11, a/99.10.

Webster County

161. Water level, in feet above datum, 1941: Oct. 29, 99.22.

162. No measurements made in 1941.

163. Water levels, in feet above datum, 1941: Jan. 21, 98.88; Oct. 29, 100.19.

Wheeler County

204. Water level, in feet above datum, 1941: Oct. 17, 99.18.

205. Water level, in feet above datum, 1941: Oct. 17, 99.74.

York County

167. Water levels, in feet above datum, 1941: Jan. 21, a/98.15; Oct. 30, 98.29.

225. Water level, in feet above datum, 1941: Nov. 1, a/97.74.

a Lowest observed stage in period of record.

NORTH DAKOTA

STATE-WIDE PROJECT

By W. C. Rasmussen

The program of water-level measurements in wells in North Dakota[1/] was continued in 1941 by the Federal Geological Survey in cooperation with the North Dakota Geological Survey. Fourteen wells were dropped from the program and 11 wells were added. At the end of the year water levels in 173 wells were under observation.

Water levels in 62 wells were measured weekly by 37 local observers. Water levels in 13 wells were measured weekly and 7 wells were measured occasionally through the courtesy of city, State, and Federal agencies. The remaining 91 wells were measured by the writer once, twice, or several times during the year. About 5,500 individual measurements of water level were made in 1941. Eight automatic water-stage recorders were operated on wells during the year.

The ground-water investigation of the vicinity of Fargo was continued by the Federal Geological Survey in cooperation with the North Dakota Geological Survey and the city of Fargo. A discussion of this project is given under the heading of Cass County. A detailed investigation was made of the ground water in an area south of Oakes, in Dickey County. Copies of a preliminary report based on this investigation are filed in typewritten form in the office of the Geological Survey, United States Department of the Interior, Washington, D. C., and in the office of the State Geological Survey, Grand Forks, N. Dak., where they may be consulted by interested persons. A ground-water investigation of Pembina County was begun in 1941. All of this work was done in cooperation with the North Dakota Geological Survey.

1/ See Geological Survey Water-Supply Papers 840, 845, 886, and 908.

The following table gives average monthly water levels from September 1937 to December 1940 based on records of 10 to 42 wells located in different parts of the State. Records for 22 wells were used to compute average water levels in 1941. In the first 3½ years of the record the average water levels in corresponding months show, in general, decreases in each succeeding year, but in May 1941 the water levels began a recovery which brought them to a new high average by October. The year closed with the average water level above that at the close of any previous year since the observations were begun in 1937. The precipitation in North Dakota in 1941, as reported by the United States Weather Bureau, was 37 percent above normal. Excessive rains fell in April, May, June, August, September, and October, with the September rainfall almost 3 times its 50-year average. In July the rainfall was only 72 percent of normal. These variations in rainfall may explain the fluctuations shown in the water-level table, with the sag in August due to the subnormal July rainfall, and the record high in October due to the thrice normal September rain.

Average monthly water levels, in feet above assumed datum planes, in observation wells in North Dakota, 1937-41

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1937	.....	.....	.....	.....	.....	.....	.....	.....	100.31	100.19	100.13	100.05
1938	99.97	99.93	100.12	100.41	100.68	100.35	99.99	99.61	99.59	99.44	99.51	99.54
1939	99.49	99.38	99.38	99.95	99.98	100.07	99.89	99.62	99.41	99.37	99.34	99.31
1940	99.24	99.14	99.13	99.16	99.43	99.52	99.34	99.24	99.07	98.96	98.95	98.92
1941	98.84	98.74	98.83	99.76	99.97	100.43	100.39	99.89	100.16	100.73	100.64	100.26

Average water levels for the period of record are shown graphically in the accompanying figure. This figure also shows the average water levels from 1933 to 1941 of six water-table wells at Denbigh, N. Dak. A fair correlation of the State average with the Denbigh average is observable, with good agreement of the trends, so that a comparable extrapolation of average water levels is available back to 1933.

Records for 187 observation wells are included in this report. The wells are listed alphabetically by county and numerically within each county. Periodic measurements have been made in wells in every county in the State, and in 1941 measurements were made on wells in every county except Grand Forks, where two wells that were previously measured have gone dry. Complete descriptions are given only for those wells whose descriptions are not included in Water-Supply Papers 840, 845, 886, or 908. In the absence of a description, reference is made to the volume in which it may be found.

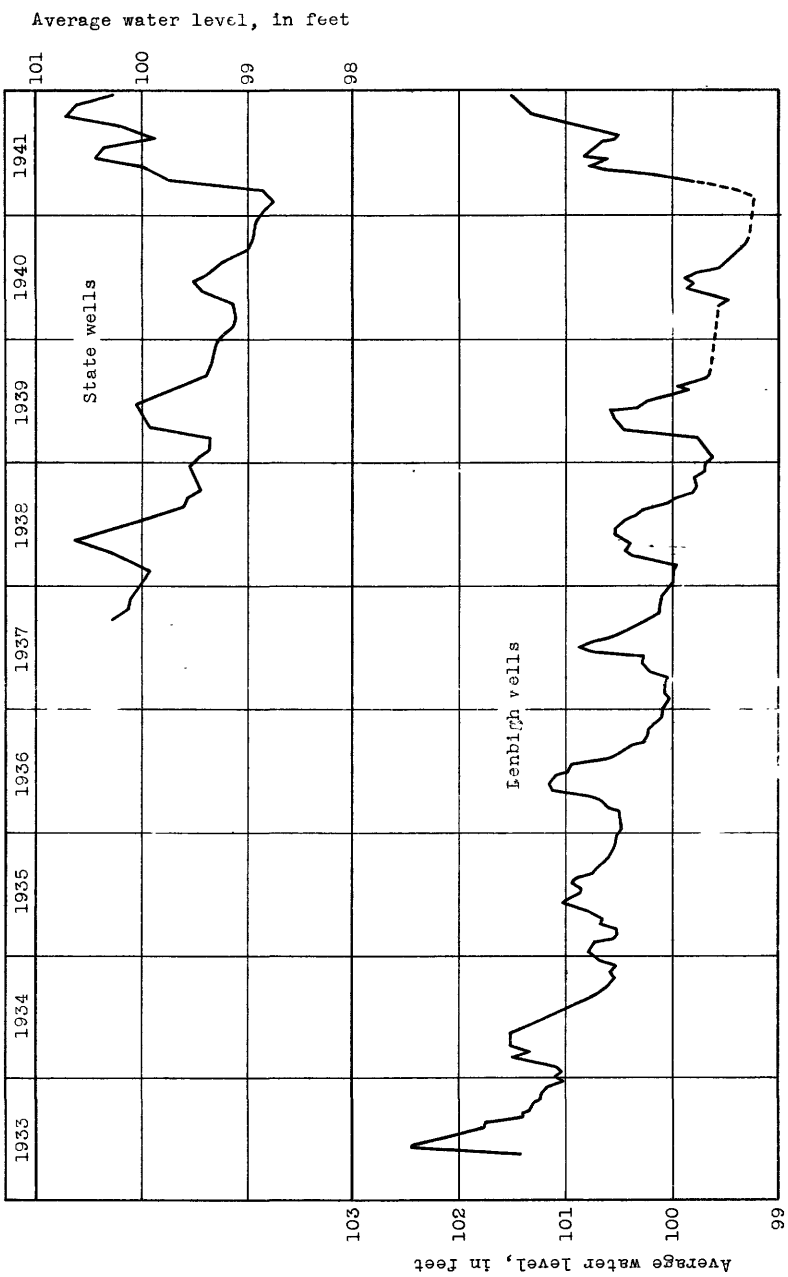

Figure 4.--Graphs showing the average of ter levels, in feet above assumed datum planes, in wells in North Dakota. e upper graph is based on 10 to 42 selected wells throughout the State; the lower graph is based on 6 wells at Denbigh, measured by the U. S. Forest Experiment Station.

Except where otherwise noted, the water level in each well is expressed in feet above an assumed datum plane, which is 100 feet below the water level in that well on January 1, 1938, or on the nearest date of measurement. In each observation well that has been established since January 1, 1938, the water level on the first day of measurement is generally taken to be the same as the average of a group of selected representative wells; that is, if the average is 100.26 feet, the datum plane for that well is 100.26 feet below the water level on that day. The depth of the datum plane below the measuring point is then 100.26 feet plus the depth to the water level below the measuring point. To compute the depth to water level below the measuring point subtract the recorded height of water level above the datum plane from the recorded altitude of the measuring point. Water levels for any one well are directly comparable, even though the measuring point may have been changed, because the record is given in height above a datum plane that has been referred to one or more bench marks near the well.

Adams County

1. Mrs. Halvorsen. SW¼SW¼ sec. 14, T. 130 N., R. 97 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 16, 53.59; Oct. 23, 52.39.

Barnes County

97 4. Wilkins. NW¼SW¼ sec. 5, T. 138 N., R. 57 W. (Described in Water-Supply Paper 886, p. 347). Error in figures for Dec. 14, 21 and 28, 19 , reported in Water-Supply Paper 908. Corrected water level, in feet above datum, 1940: Dec. 14, 98.68; Dec. 21, 98.67; Dec. 28, 98.69.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	98.68	Apr. 5	98.65	July 5	98.41	Oct. 4	98.34
11	98.91	12	98.60	12	98.34	11	98.38
18	98.78	19	98.58	19	98.33	18	98.35
25	98.82	26	98.62	26	98.30	25	98.40
Feb. 1	98.72	May 3	98.57	Aug. 2	98.39	Nov. 1	98.37
8	98.64	10	98.52	9	98.36	8	98.39
15	98.59	17	93.50	16	98.32	15	98.40
22	98.58	24	98.48	23	98.25	22	98.33
Mar. 1	98.65	31	98.47	30	98.21	29	98.35
8	98.73	June 7	98.51	Sept. 6	98.33	Dec. 6	98.40
15	98.75	14	98.40	13	98.39	13	98.41
22	98.61	21	98.37	20	98.29	20	98.42
29	98.62	28	98.43	27	98.37	27	98.40

Barnes County--Continued

98. H. H. Wilkins. NW¼SW¼ sec. 5, T. 138 N., R. 57 W. (Described in Water-Supply Paper 886, p. 531).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	102.78	Apr. 5	102.59	July 5	102.49	Oct. 4	102.79
11	102.81	12	102.94	12	102.52	11	102.71
18	102.80	19	103.21	19	102.51	18	102.62
25	102.77	26	103.27	26	102.52	25	102.72
Feb. 1	102.75	May 3	103.26	Aug. 2	102.56	Nov. 1	102.88
8	102.76	10	102.88	9	102.54	8	102.94
15	102.75	17	102.71	16	102.55	15	103.00
22	102.74	24	102.54	23	102.50	22	102.91
Mar. 1	102.75	31	102.51	30	102.47	29	102.71
8	102.76	June 7	102.66	Sept. 6	102.60	Dec. 6	102.88
15	102.67	14	102.58	13	102.75	13	103.06
22	102.60	21	102.56	20	103.63	20	103.24
29	102.58	28	102.52	27	102.92	27	103.31

Benson County

111. H. Biltingsrud. NE¼SE¼ sec. 36, T. 156 N., R. 69 W. (Described in Water-Supply Paper 908). Correction, Water-Supply Paper 908, measurement was made Nov. 8, not Nov. 3, 20.72. Water levels, in feet below measuring point, 1941: Apr. 24, 20.50; Oct. 29, 18.94.

Billings County

88. Roosevelt National Park. SW¼SE¼ sec. 32, T. 140 N., R. 100 W. (Described in Water-Supply Papers 845, p. 347, and 908).

Water level, in feet above datum, 1941

Jan. 4	99.62	Apr. 13	99.59	July 12	99.92	Oct. 11	99.89
11	99.62	19	99.59	19	99.92	18	99.89
18	99.62	26	99.60	26	99.92	22	99.89
25	99.61	May 3	99.60	Aug. 2	99.92	25	99.92
Feb. 1	99.60	10	99.60	9	99.92	Nov. 1	99.93
8	99.60	17	99.60	16	99.92	8	99.92
15	99.60	24	99.60	23	99.91	15	99.93
22	99.60	31	99.60	30	99.91	22	99.93
Mar. 1	99.60	June 7	99.61	Sept. 6	99.91	29	99.93
8	99.61	14	99.78	13	99.89	Dec. 6	99.91
15	99.61	21	99.86	20	99.89	13	99.91
22	99.59	28	99.90	27	99.87	20	99.92
29	99.60	July 5	99.92	Oct. 4	99.87	27	99.91
Apr. 5	99.60						

Bottineau County

60. Federal Land Bank. SE¼NE¼ sec. 23, T. 160 N., R. 76 W. (Described in Water-Supply Paper 840, p. 320).

Water level, in feet above datum, 1941

Jan. 4	99.59	Feb. 1	99.58	Mar. 1	99.56	Mar. 29	99.32
11	99.59	8	99.57	8	99.55	Apr. 5	99.55
18	99.58	15	99.57	15	99.54	Oct. 29	100.73
25	99.58	22	99.57	22	99.54		

112. Frank Churchill. SE¼SE¼ sec. 25, T. 161 N., R. 78 W. (Described in Water-Supply Paper 908). Correction, Water-Supply Paper 908, measurement was made Nov. 9, not Nov. 11, 24.07. Water levels, in feet below measuring point, 1941: Apr. 23, 23.56; Oct. 28, 21.54.

Bowman County

83. City of Bowman. NE¼NW¼ sec. 11, T. 131 N., R. 102 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 16	101.34	Oct. 23	102.42	Nov. 16	102.41	Dec. 14	101.97
19	101.36	26	102.41	23	102.41	21	101.99
26	a 98.62	Nov. 2	102.42	30	101.93	28	101.97
May 3	101.39	9	102.39	Dec. 7	101.91		

84. City of Bowman. NE¼SW¼ sec. 11, T. 131 N., R. 102 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Apr. 16	101.40	Oct. 23	102.38	Nov. 16	102.35	Dec. 14	102.38
19	101.41	26	102.39	23	102.34	21	102.38
26	b 99.44	Nov. 2	102.39	30	102.35	28	102.36
May 3	101.40	9	102.33	Dec. 7	102.36		

85. City of Bowman. NE¼SW¼ sec. 11, T. 131 N., R. 102 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Apr. 16	101.37	Oct. 23	102.55	Nov. 16	102.45	Dec. 14	102.31
19	101.37	26	102.54	23	102.32	21	102.32
26	101.12	Nov. 2	102.56	30	102.32	28	102.32
May 3	101.14	9	102.49	Dec. 7	102.30		

Burke County

52. Fish and Wildlife Service, U. S. Department of the Interior. SW¼SE¼ sec. 1, T. 163 N., R. 89 W. Unused dug well, diameter 36 inches, depth 19.2 feet. Measuring point, top of wood curb south side, 1.4 feet above land surface.

Water level, in feet below measuring point, 1937-38, 1941

Date	Water level	Date	Water level	Date	Water level
Oct. 31, 1937	16.50	May 6, 1938	14.70	Apr. 24, 1941	16.00
Nov. 7	16.50	15	14.47	Oct. 25	16.04
Apr. 19, 1938	15.29	June 13	14.60		

66. Mrs. P. M. Peterson. SE¼SE¼ sec. 5, T. 162 N., R. 89 W. (Described in Water-Supply Paper 840, p. 66).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	100.19	Apr. 5	100.38	July 5	100.86	Oct. 4	100.52
11	100.19	12	100.38	12	100.75	11	100.52
18	100.19	19	100.38	19	100.69	18	100.53
25	100.20	26	100.37	26	100.58	25	100.51
Feb. 1	100.20	May 3	100.53	Aug. 2	100.53	Nov. 1	100.51
8	100.23	10	100.55	9	100.48	10	100.49
15	100.24	17	100.55	16	100.51	15	100.49
22	100.23	24	100.53	23	100.54	22	100.54
Mar. 1	100.24	31	100.59	30	100.44	29	100.53
8	100.24	June 7	100.77	Sept. 6	100.51	Dec. 6	100.53
15	100.24	14	100.94	13	100.50	13	100.53
22	100.63	21	101.05	20	100.53	20	100.54
29	100.28	28	100.88	27	100.52	27	100.54

a Pumped dry 20 hours before.

b Influenced by No. 83, pumped dry 20 hours before.

Burke County--Continued

115. Fish and Wildlife Service, U. S. Department of the Interior. SE¼SW¼ sec. 21, T. 160 N., R. 91 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 12	99.63	June 14	99.47	Aug. 30	99.49	Nov. 8	99.48
19	99.47	21	99.45	Sept. 6	99.46	15	99.52
May 3	99.70	July 5	99.44	13	99.56	29	99.54
10	99.32	12	99.42	27	99.39	Dec. 6	99.55
17	99.65	19	99.44	Oct. 4	99.40	13	99.57
24	99.70	Aug. 2	99.47	18	99.38	20	99.45
31	99.57	9	99.44	25	99.42	27	99.36
June 7	99.50	16	99.43	Nov. 1	99.44		

116. Fish and Wildlife Service, U. S. Department of the Interior. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Apr. 12	99.57	June 14	99.75	Aug. 30	99.41	Nov. 1	99.53
19	99.53	21	99.73	Sept. 6	99.57	8	99.55
21	99.52	July 5	99.70	13	99.56	15	99.59
May 3	99.74	12	99.68	27	99.58	29	99.56
10	99.64	19	99.63	Oct. 4	99.55	Dec. 6	99.57
17	99.60	Aug. 2	99.49	18	99.55	13	99.58
24	99.54	9	99.31	25	99.54	20	99.57
31	99.74	16	99.39	26	99.55	27	99.51
June 7	99.82						

Burleigh County

1. Celia De Long. SW¼SW¼ sec. 35, T. 141 N., R. 80 W. (Described in Water-Supply Paper 908). Incorrectly located in sec. 25 in Water-Supply Paper 908. Water levels, in feet below measuring point, 1941: Apr. 4, 15.35; Nov. 20, 15.67.

Cass County

Fargo area

By A. C. Byers

The investigation of the ground-water resources of the Fargo area, begun in 1940 in cooperation with the North Dakota State Geological Survey and the city of Fargo [2/], was continued in 1941. Field work on the problem was completed in the fall of 1941, but measurements of the observation wells are being continued. Of the wells reported under Cass County, all except wells 8, 10, and 29 are measured as part of the Fargo area program, and during 1941 about 1,000 individual measurements of water levels in these 17 wells were made by the wetted-tape method. Automatic water-level recorders were maintained on 6 wells, and about 1,800 water levels from the charts are recorded in this report. The measurements were made by L. K. Wenzel, W. C. Rasmussen, Ralph Mader, and Alan C. Byers. Measurements of

2/ See U. S. Geol. Survey Water-Supply Paper 908.

six wells within the limits of Fargo were made by H. G. Palmer, by courtesy of the city of Fargo. Measurements were discontinued on 2 wells, so that at the end of 1941 a total of 18 wells were being measured in Cass County, 15 of these being part of the Fargo area program.

In order to provide information concerning the effect of pumping the well used by the city of Fargo to supplement its surface water supply, the well was pumped more strenuously in 1941 than in previous years. Pumping was begun on June 2 for 8 hours each day; early in August the duration of pumping was increased to 10 hours each day. The pump was shut down at the end of pumping on September 30, after pumping about 50,000,000 gallons during the season. The water levels in wells 28, 12, 3, 5, and 127 showed effects of the pumping, and the water level in well 67 gave a small indication. At the end of 1941 the water levels in these 6 wells averaged 8.83 feet below their average level at the end of 1940.

The water level in well 58 was affected by the pumping of well 57, and at the end of 1941 it was 3.91 feet below the level at the end of 1940. The average water level in wells 8, 10, 29, 43, and 122, which are shallow water-table wells in the Lake Agassiz silt, was 0.83 foot above the average level at the end of 1940.

1. H. Benson, 201 16th St.So., Fargo. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 27.18 feet below measuring point.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	95.34	Apr. 5	94.23	July 13	89.79	Oct. 4	86.79
11	95.41	12	93.94	19	89.28	11	87.08
18	95.40	19	94.62	26	88.87	18	87.33
26	95.48	26	93.54	Aug. 2	90.46	25	87.68
Feb. 1	95.44	May 3	93.58	9	88.13	Nov. 1	87.79
8	95.47	10	93.94	16	87.93	8	87.80
16	95.54	17	93.95	23	87.71	15	88.13
22	95.63	24	93.75	30	87.45	22	88.15
Mar. 1	95.47	31	93.80	Sept. 6	87.19	30	88.35
9	95.43	June 7	93.81	13	87.09	Dec. 6	88.46
15	94.60	14	91.50	20	86.92	13	88.57
23	95.05	28	91.28	28	86.69	20	88.76
29	94.86	July 6	90.38				

3. The Pierce Co., 1019 1st Ave. No., Fargo. (Described in Water-Supply Paper 908). Water level, Jan. 1, 1941, 24.57 feet below measuring point.

Lowest daily water level, in feet above assumed datum, 1941 (from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	94.22	94.56	94.72	94.87	95.07	95.09	89.36	85.73	83.14	81.41	86.09	88.66
2	94.22	94.55	94.75	94.87	95.08	a95.09	89.17	85.68	83.07	81.40	86.26	88.73
3	94.26	94.55	94.77	94.87	95.09	95.07	89.00	85.60	82.99	81.40	86.38	88.82

a Pumping of well 14 began.

Cass County--Continued

3. The Pierce Co.--Continued.

Lowest daily water level, in feet above assumed datum, 1941
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	94.29	94.55	94.75	94.87	95.09	95.03	88.84	85.51	82.94	81.47	86.49	88.92
5	94.27	94.56	94.74	94.87	95.10	94.94	88.72	85.45	82.87	81.58	86.58	88.98
6	94.27	94.60	94.72	94.90	95.12	94.88	88.60	85.40	82.76	81.72	86.66	89.00
7	94.27	94.60	94.73	94.92	95.14	94.74	88.46	85.34	82.68	81.92	86.77	89.05
8	94.29	94.60	94.73	94.93	95.12	94.52	88.34	85.26	82.61	82.13	86.87	89.12
9	94.28	94.61	94.78	94.94	95.07	94.30	88.23	85.18	82.54	82.33	86.96	.....
10	94.29	94.62	94.80	94.95	95.06	94.08	88.08	85.14	82.44	82.51	87.06	.....
11	94.32	94.63	94.79	94.95	95.04	93.87	87.91	85.09	82.38	82.70	87.13	.....
12	94.34	94.64	94.76	94.97	95.04	93.63	87.77	84.99	82.35	82.88	87.23	.....
13	94.34	94.67	94.73	94.90	95.05	93.38	87.64	84.92	82.32	83.09	87.37a	89.39
14	94.35	94.67	94.73	94.93	95.10	93.11	87.53	84.85	82.27	83.30	87.44	89.42
15	94.38	94.67	94.76	94.96	95.11	92.84	87.43	84.75	82.20	83.47	87.55	89.48
16	94.40	94.67	94.82	94.96	95.08	92.58	87.33	84.63	82.13	83.63	87.62	89.55
17	94.42	94.69	94.79	94.96	95.06	92.35	87.24	84.56	82.05	83.83	87.71	89.59
18	94.40	94.66	94.79	94.97	95.06	92.11	87.12	84.47	82.01	84.03	87.80	89.67
19	94.40	94.63	94.80	95.09	95.09	91.87	86.98	84.36	81.97	84.20	87.89	89.71
20	94.41	94.62	94.81	95.09	95.06	91.61	86.88	84.28	81.92	84.37	87.97	89.73
21	94.43	94.62	94.79	95.06	95.05	91.35	86.78	84.19	81.86	84.53	88.02	89.77
22	94.44	94.63	94.79	95.06	95.03	91.11	86.68	84.08	81.77	84.71	88.10	89.84
23	94.44	94.64	94.80	95.04	95.00	90.90	86.57	84.00	81.73	84.87	88.15	89.87
24	94.44	94.67	94.80	95.03	94.99	90.70	86.45	83.92	81.71	85.00	88.22	89.92
25	94.47	94.69	94.80	95.03	95.01	90.50	86.36	83.81	81.67	85.15	88.30	89.95
26	94.47	94.69	94.81	95.03	95.05	90.30	86.32	83.69	81.65	85.32	88.39	89.98
27	94.48	94.71	94.83	95.03	95.07	90.10	.....	83.57	81.59	85.48	88.45	90.01
28	94.48	94.71	94.83	95.05	95.08	39.90	.....	83.50	81.52	85.60	88.49	90.01
29	94.50	.....	94.83	95.06	95.07	89.72	.....	83.43	81.48	85.71	88.56	90.04
30	94.53	.....	94.86	95.06	95.07	89.54	85.87	83.33b	81.46	85.85	38.59	90.11
31	94.55	.....	94.87	.....	95.07	.....	85.80	83.23	.....	85.95	.....	90.14

4. City of Fargo, Island Park. (Described in Water-Supply Paper 908). Water level, Jan. 1, 1941, 40.18 feet below measuring point.

Lowest daily water level, in feet above assumed datum, 1941
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	95.42	95.42	95.53	95.57	95.60	95.46	95.18	94.34	94.06	94.19	94.37	94.42
2	95.47	95.46	95.55	95.56	95.60	95.46	95.13	94.30	94.06	94.19	94.38	94.42
3	95.47	95.46	95.50	95.56	95.61	95.46	95.11	94.26	94.05	94.24	94.38	94.47
4	95.45	95.49	95.49	95.55	95.62	95.45	95.09	94.25	94.07	94.26	94.34	94.48
5	95.43	95.51	95.49	95.56	95.62	95.46	95.08	94.24	94.08	94.24	94.34	94.40
6	95.43	95.50	95.49	95.57	95.64	95.49	95.02	94.22	94.04	94.24	94.36	94.40
7	95.44	95.50	95.47	95.57	95.62	95.66	95.02	94.16	94.04	94.28	94.36	94.46
8	95.40	95.50	95.49	95.59	95.56	95.62	95.02	94.13	94.08	94.28	94.36	94.43
9	95.40	95.52	95.51	95.58	95.53	95.61	95.05	94.10	94.09	94.25	94.36	94.38
10	95.44	95.52	95.50	95.57	95.53	95.63	95.01	94.11	94.06	94.24	94.35	94.37
11	95.44	95.52	95.47	95.58	95.52	95.68	94.95	94.15	94.06	94.27	94.34	94.38
12	95.43	95.56	95.43	95.60	95.54	95.76	94.94	94.12	94.12	94.27	94.39	94.45
13	95.43	95.53	95.42	95.63	95.58	95.73	94.94	94.12	94.21	94.29	94.37	94.45
14	95.44	95.53	95.46	95.65	95.60	95.69	94.96	94.13	94.20	94.27	94.37	94.45
15	95.48	95.41	95.54	95.61	95.56	95.67	94.98	94.11	94.18	94.23	94.41	94.49
16	95.49	95.53	95.49	95.62	95.54	95.65	94.98	94.10	94.16	94.24	94.41	94.50
17	95.44	95.49	95.46	95.63	95.54	95.66	94.98	94.11	94.14	94.30	94.44	94.51
18	95.43	95.46	95.48	95.64	95.56	95.65	94.93	94.12	94.16	94.27	94.45	94.51
19	95.46	95.44	95.51	95.62	95.53	95.63	94.89	94.10	94.18	94.27	94.45	94.48
20	95.46	95.44	95.46	95.62	95.49	95.56	94.88	94.09	94.19	94.31	94.42	94.48
21	95.46	95.45	95.45	95.60	95.48	95.48	94.86	94.09	94.12	94.31	94.42	94.50
22	95.44	95.46	95.46	95.59	95.43	95.44	94.84	94.07	94.10	94.30	94.40	94.50
23	95.44	95.47	95.46	95.59	95.42	95.43	94.80	94.13	94.10	94.31	94.40	94.50
24	95.44	95.48	95.46	95.57	95.43	95.43	94.75	94.14	94.18	94.31	94.40	94.50
25	95.44	95.48	95.47	95.56	95.46	95.42	94.71	94.11	94.18	94.31	94.44	94.49

a Tape measurement. b Pumping of well 14 stopped.

Cass County--Continued

4. City of Fargo, Island Park--Continued.

Lowest daily water level, in feet above assumed datum, 1941 (from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	95.45	95.48	95.50	95.57	95.50	95.38	94.66	94.04	94.18	94.33	94.43	94.45
27	95.43	95.48	95.48	95.59	95.50	95.35	94.60	94.02	94.18	94.31	94.41	94.44
28	95.45	95.48	95.47	95.59	95.49	95.36	94.51	94.02	94.15	94.30	94.41	94.44
29	95.47	.....	95.50	95.59	95.45	95.36	94.46	94.06	94.15	94.30	94.39	94.44
30	95.50	.....	95.57	95.60	95.46	95.29	94.39	94.07	94.20	94.30	94.39	94.45
31	95.50	.....	95.55	.....	95.48	.....	94.37	94.07	.....	94.30	.....	94.45

5. Gardner Hotel, First St. No. and Roberts St., Fargo. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 22.99 feet below measuring point.

Lowest daily water level, in feet above assumed datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	.....	94.37	94.60	94.77	94.98	100.85
2	.....	94.40	94.62	94.78	94.99	c100.68
3	.....	94.40	94.63	94.79	94.99	100.44
4	a94.02	94.41	94.64	94.79	94.98	100.20
5	.....	94.41	94.65	94.80	b95.06	100.01
6	94.04	94.42	94.66	94.81	95.48	100.01
7	94.05	94.42	94.66	94.81	96.01	100.88
8	94.06	94.43	94.67	94.82	96.40	.....
9	94.07	94.44	94.68	94.83	96.35	.....
10	94.08	94.45	94.68	94.84	96.28	.....
11	94.10	94.45	94.69	94.85	96.20	.....
12	94.12	94.46	94.69	94.86	96.13	.....
13	94.13	94.48	94.70	94.86	96.07	.....
14	94.14	94.49	94.70	94.87	96.07	.....
15	94.16	94.49	94.71	94.90	96.33	.....
16	94.18	94.49	94.72	94.91	96.62	.....
17	94.19	94.50	94.72	94.91	96.54	.....
18	94.21	94.51	94.72	94.92	96.92	.....
19	94.21	94.51	94.73	94.93	97.58	.....
20	94.22	94.52	94.73	94.94	97.97	.....
21	94.24	94.53	94.73	94.95	97.95	.....
22	94.25	94.54	94.74	94.95	97.86	.....
23	94.27	94.55	94.74	94.95	97.70	.....
24	94.28	94.56	94.74	94.95	97.53	.....
25	94.29	94.57	94.75	94.96	97.51	.....
26	94.30	94.58	94.75	94.96	97.21	.....
27	94.31	94.59	94.75	94.96	98.35	.....
28	94.32	94.59	94.76	94.97	98.51	103.56
29	94.33	.....	94.76	94.97	99.45	102.37
30	94.35	.....	94.76	94.98	99.81	101.45
31	94.36	.....	94.77	.....	100.34	.....

Lowest daily water level, in feet above assumed datum, 1941

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	100.61	88.64	85.49	83.57	85.33	88.11
2	99.78	88.48	85.41	83.50	85.45	88.18
3	99.32	88.34	85.33	83.45	85.56	88.25
4	98.53	88.20	85.25	83.42	85.66	88.33
5	97.76	88.08	85.17	83.39	85.78	88.40
6	97.07	87.95	85.09	83.38	85.89	88.46
7	96.41	87.84	85.01	83.37	85.99	88.54
8	95.80	87.72	84.93	83.37	86.10	88.60
9	95.24	87.60	84.86	83.38	86.20	88.66
10	94.71	87.49	84.78	83.39	86.30	88.72
11	94.23	87.39	84.69	83.40	86.40	88.77
12	93.79	87.29	84.65	83.43	86.50	88.83

a Tape measurement.

b Water from rising water table flooding well.

c Pumping of well 14 began.

Cass County--Continued

5. Gardner Hotel--Continued.

Lowest daily water level, in feet above assumed datum, 1941 (from recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	.....	87.19	84.73	83.49	86.60	88.89
14	92.95	87.10	85.00	83.54	86.70	88.95
15	92.58	87.01	84.89	83.61	86.80	89.01
16	92.23	86.92	84.79	83.68	86.89	89.06
17	91.91	86.82	84.68	83.76	86.98	89.12
18	91.60	86.73	84.58	83.85	87.08	89.18
19	91.31	86.64	84.49	83.94	87.17	89.23
20	91.04	86.55	84.40	84.03	87.26	89.28
21	90.78	86.46	84.31	84.13	87.35	89.33
22	90.54	86.37	84.22	84.23	87.43	89.39
23	90.30	86.28	84.13	84.35	87.51	89.43
24	90.08	86.20	84.06	84.45	87.59	89.48
25	89.86	86.11	83.98	84.55	87.66	89.53
26	89.67	86.01	83.91	84.65	87.74	89.57
27	89.48	85.92	83.84	84.77	87.82	89.62
28	89.30	85.83	83.77	84.88	87.90	89.66
29	89.12	85.74	83.70	84.99	87.97	89.69
30	88.95	85.66	a 83.64	85.11	88.05	89.73
31	88.79	85.58	.....	85.22	.....	89.77

6. Merchants National Bank & Trust Co., Eighth Ave. So., and 17th St., Fargo. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 38.15 feet below measuring point.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	95.79	Apr. 12	97.09	July 19	93.71	Oct. 11	96.68
11	86.78	20	97.05	26	98.59	18	97.71
18	100.18	May 3	100.63	Aug. 2	93.08	25	96.92
26	90.27	10	99.73	9	95.51	Nov. 1	95.27
Feb. 1	99.32	17	99.93	16	97.92	8	97.18
8	96.66	24	96.66	23	97.89	15	96.56
16	97.38	31	100.60	30	97.61	22	97.47
22	95.98	June 7	100.70	Sept. 6	97.60	30	95.33
Mar. 9	97.34	14	100.35	13	97.46	Dec. 6	95.75
15	95.70	21	95.09	20	95.93	13	98.38
23	97.21	28	99.25	28	96.52	20	95.78
29	96.61	July 6	97.53	Oct. 4	97.26	28	97.49
Apr. 5	98.14	13	98.89				

8. Mrs. Arthur D. South. SE¼SE¼ sec. 14, T. 140 N., R. 52 W. (Described in Water-Supply Paper 840, p. 321).

Water level, in feet above datum, 1941

Jan. 1	99.52	Jan. 25	99.51	Feb. 22	99.53	Mar. 22	99.36
4	99.52	Feb. 1	99.52	Mar. 1	99.38	29	99.36
11	99.53	8	99.52	8	99.38	Apr. 5	99.37
18	99.53	15	99.52	15	99.37	Oct. 14	99.57

10. Mrs. Arthur D. South. SE¼SE¼ sec. 14, T. 140 N., R. 52 W. (Described in Water-Supply Paper 840, p. 321).

Water level, in feet above datum, 1941

Jan. 1	98.58	Jan. 25	98.67	Feb. 22	98.67	Mar. 22	98.90
4	98.58	Feb. 1	99.65	Mar. 1	98.67	29	98.89
11	98.58	8	98.72	8	98.96	Apr. 5	98.90
18	98.58	15	98.67	15	98.93	Oct. 14	98.16

a Pumping of well 14 stopped.

Cass County--Continued

12. City of Fargo. SW¼SW¼ sec. 1, T. 139 N., R. 49 W. (Described in Water-Supply Paper 840, p. 321). Measuring point changed May 31, 1941, to top of coupling on casting flush with land surface and 2.14 feet below old measuring point. Automatic water-stage recorder installed May 31, 1941. Water level, Jan. 4, 1941, 35.54 feet below old measuring point.

Lowest daily water level, with reference to assumed datum, 1941
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	a91.02	a91.60	.....	.....	.....	21.42	11.12	-0.13	9.42	67.07	76.02
2	.....	.....	.....	.....	.....	b69.47	20.97	10.82	- .33	21.22	67.62	76.18
3	.....	.....	.....	.....	a92.40	62.42	20.62	11.07	- .38	27.62	68.02	76.42
4	a90.22	.....	.....	.....	.....	57.40	20.37	11.27	- .38	32.52	68.42	76.64
5	.....	.....	.....	a91.99	.....	53.42	19.92	11.07	- .58	36.27	68.77	76.76
6	.....	.....	.....	.....	.....	a70.51	19.72	10.72	- .73	39.37	69.22	76.85
7	.....	.....	.....	.....	.....	a67.59	19.12	10.42	- .63	42.17	69.57	77.12
8	.....	a91.19	a91.67	.....	.....	45.12	18.82	9.22	- .63	44.42	69.92	77.25
9	.....	.....	.....	.....	.....	42.87	18.42	8.72	- .63	46.47	70.27	77.40
10	.....	.....	.....	.....	a92.36	40.87	18.12	8.67	- .78	48.27	70.62	77.49
11	a90.48	.....	.....	.....	.....	39.42	17.62	8.22	- .83	49.97	70.92	77.65
12	.....	.....	.....	a92.13	.....	37.62	17.32	6.82	- .88	51.42	71.32	77.90
13	.....	.....	.....	.....	.....	36.12	17.22	6.07	-1.08	52.77	71.62	78.04
14	.....	.....	.....	.....	.....	34.67	16.92	5.42	-1.08	53.97	71.87	78.22
15	.....	a91.28	a91.79	.....	.....	33.42	16.62	4.77	-1.13	55.12	72.22	78.42
16	.....	.....	.....	.....	.....	32.17	16.32	4.97	-1.18	56.17	72.47	78.57
17	.....	.....	.....	.....	a92.42	31.12	15.92	5.12	-1.28	57.22	72.77	78.72
18	a90.64	.....	.....	.....	.....	30.12	15.52	4.17	-1.28	58.12	73.02	78.84
19	.....	.....	.....	a92.27	.....	29.02	15.02	3.42	-1.38	59.02	73.27	78.94
20	.....	.....	.....	.....	.....	28.02	14.97	2.57	-1.38	59.87	73.52	79.08
21	.....	.....	.....	.....	.....	27.22	14.77	2.17	-1.38	60.62	73.77	79.26
22	.....	a91.36	a91.81	.....	.....	26.52	13.82	1.77	-1.48	61.42	74.02	79.40
23	.....	.....	.....	.....	.....	25.57	13.77	1.37	-1.53	62.02	74.26	79.50
24	.....	.....	.....	.....	a92.38	24.77	13.62	1.22	-1.53	62.72	74.52	79.63
25	a90.79	.....	.....	.....	.....	23.92	12.42	1.02	.....	63.32	74.80	79.74
26	.....	.....	.....	a92.28	.....	23.67	12.32	.72	-1.48	64.02	74.96	79.86
27	.....	.....	.....	.....	.....	22.92	12.67	.52	-1.48	64.52	75.16	79.92
28	.....	.....	.....	.....	.....	22.37	11.92	.42	-1.53	65.02	75.35	80.04
29	.....	.....	a91.92	.....	.....	22.07	11.72	.32	-1.48	65.57	75.57	80.17
30	.....	.....	.....	.....	.....	21.72	11.87	.17	c-1.48	66.07	75.75	80.32
31	.....	.....	.....	.....	a92.56	.....	11.37	.02	.....	66.52	.....	80.38

17. David Bossart, 1014 27th St. No., Fargo. (Described in Water-Supply Paper 908). Measurements discontinued after May 1, 1941. Water level, Jan. 4, 1941, 29.88 feet below measuring point.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	96.02	Feb. 16	90.78	Mar. 29	91.75	May 3	92.62
11	90.31	22	93.26	Apr. 5	93.24	10	91.66
18	92.19	Mar. 1	92.78	12	93.70	17	93.87
26	88.50	9	93.06	19	93.48	24	93.72
Feb. 1	91.30	15	91.99	26	93.73	31	92.58
8	93.19	23	92.89				

28. City of Fargo. NW¼ SW¼ sec. 1, T. 139 N., R. 49 W. (Described in Water-Supply Papers 840, p. 321, and 845, p. 350). Water level, Jan. 4, 1941, 34.30 feet below measuring point.

Water level, in feet above assumed datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	91.01	91.59	.....	.....	.....	39.87	30.05	18.36	15.43	67.35	.....
2	.....	.....	.....	.....	.....	b91.80	39.55	29.53	18.10	.....	.....	.....
3	.....	.....	.....	.....	92.43	84.49	39.23	.....	17.94	.....	.....	.....

a Tape measurement.
b Pumping of well 14 began.
c Pumping of well 14 stopped.

Cass County--Continued

28. City of Fargo--Continued.

Water level, in feet above assumed datum, 1941

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	90.21	.....	.....	.....	.....	78.57	.....	29.19	17.82	34.23	.....	.....
5	.....	.....	.....	92.01	.....	74.14	38.43	29.24	17.66	.....	.....	.....
6	.....	.....	.....	.....	.....	70.61	.....	29.09	17.48	.....	.....	76.95
7	.....	.....	.....	.....	.....	67.56	37.50	29.10	.....	.....	.....	.....
8	.....	91.18	91.68	.....	.....	64.79	37.31	28.63	17.26	.....	70.07	.....
9	.....	.....	.....	.....	.....	62.64	36.81	27.86	17.19	.....	.....	.....
10	.....	.....	.....	.....	92.36	60.61	36.67	.....	16.90	.....	.....	.....
11	90.48	.....	.....	.....	.....	58.82	36.19	27.10	16.92	50.57	.....	.....
12	.....	.....	.....	92.16	.....	57.16	35.80	.....	16.90	.....	.....	.....
13	.....	.....	.....	.....	.....	55.59	.....	25.64	16.63	.....	.....	78.11
14	.....	.....	.....	.....	.....	54.39	35.31	24.88	.....	.....	.....	.....
15	.....	91.28	91.81	.....	.....	52.65	35.06	24.81	16.50	.....	72.31	.....
16	.....	.....	.....	.....	.....	51.57	.....	23.67	16.40	.....	.....	.....
17	.....	.....	.....	.....	92.45	50.22	34.35	.....	16.26	.....	.....	.....
18	90.63	.....	.....	.....	.....	49.91	33.99	23.66	16.25	58.52	.....	.....
19	.....	.....	.....	92.31	.....	48.17	33.71	.....	16.23	.....	.....	.....
20	.....	.....	.....	.....	.....	47.29	.....	22.35	16.10	.....	.....	79.11
21	.....	.....	.....	.....	.....	46.39	33.30	21.42	.....	.....	.....	.....
22	.....	91.37	91.82	.....	.....	45.38	32.51	21.11	.....	.....	74.09	.....
23	.....	.....	.....	.....	.....	44.75	32.46	20.65	15.86	.....	.....	.....
24	.....	.....	.....	.....	92.40	44.00	32.26	.....	.....	.....	.....	.....
25	90.81	.....	.....	.....	.....	43.29	32.10	20.01	15.76	63.64	.....	.....
26	.....	.....	.....	92.29	.....	42.75	31.64	19.63	15.73	.....	.....	.....
27	.....	.....	.....	.....	.....	41.95	.....	19.43	15.65	.....	.....	79.92
28	.....	.....	.....	.....	.....	41.51	30.90	19.11	.....	.....	.....	.....
29	.....	.....	91.94	.....	.....	.....	30.57	18.99	15.48	.....	75.61	.....
30	.....	.....	.....	.....	.....	40.42	30.40	18.68	a15.50	.....	.....	.....
31	.....	.....	.....	.....	92.56	.....	29.85	.....	.....	.....	.....	.....

29. Mrs. Arthur D. South. SE¼SE¼ sec. 14, T. 140 N., R. 52 W. (Described in Water-Supply Paper 840, p. 321). Used daily for stock and house.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	99.74	Jan. 25	99.78	Feb. 22	100.75	Mar. 22	100.52
4	99.47	Feb. 1	99.00	Mar. 1	100.61	29	100.43
11	99.79	8	100.84	8	95.67	Apr. 5	100.59
18	99.46	15	100.78	15	100.05	Oct. 14	100.42

43. North Dakota State College. NE¼SW¼ sec. 35, T. 140 N., R. 49 W. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 7.53 feet below measuring point.

Water level, in feet above assumed datum, 1941

Date											
Jan.	4	100.34	May	3	101.88	July	26	99.21	Oct.	18	99.59
	11	99.84		10	101.62	Aug.	2	99.61		25	99.00
Feb.	1	99.40		17	101.51		9	99.42	Nov.	1	99.85
	8	99.49		24	101.28		16	99.56		8	99.33
	16	99.60		31	101.21		23	99.41		15	99.85
Mar.	1	99.85	June	7	102.23		30	99.31		22	99.86
	9	99.82		14	103.06	Sept.	6	99.11		29	99.84
	29	99.81		21	102.03		13	99.16	Dec.	6	99.82
Apr.	5	100.00		28	101.40		20	98.98		13	99.95
	12	101.18	July	6	100.65		28	99.25		20	99.94
	19	101.88		12	100.40	Oct.	4	99.33		27	100.00
	26	101.80		19	99.23		11	99.50			

a Pumping of well 14 stopped.

Cass County--Continued

57. Union Stockyards. NW¼NE¼ sec. 6, T. 139 N., R. 49 W. (Described in Water-Supply Paper 845, p. 351). Water level, Jan. 4, 1941, 21.15 feet below measuring point.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	85.48	Apr. 12	86.35	July 19	83.55	Oct. 4	83.33
11	76.81	19	87.14	26	75.84	11	75.47
18	85.28	26	85.91	30	74.57	18	82.61
25	85.60	May 3	87.32	31	75.10	25	74.51
Feb. 1	77.20	10	87.98	Aug. 1	82.43	Nov. 1	74.12
8	77.13	17	87.32	9	74.80	8	74.11
15	85.13	24	79.24	16	75.77	15	74.14
22	84.92	31	87.80	23	82.69	22	81.94
Mar. 1	84.93	June 7	87.85	30	83.62	29	81.79
8	77.43	14	86.51	Sept. 6	84.66	Dec. 6	80.86
15	85.34	21	84.81	13	77.04	13	81.34
23	85.73	28	84.77	20	83.35	20	80.84
29	85.28	July 5	85.77	27	75.43	27	82.22
Apr. 5	85.19	12	84.84				

58. Union Stockyards. SE¼NE¼ sec. 6, T. 139 N., R. 49 W. (Described in Water-Supply Paper 845, p. 351). Water level, Jan. 4, 1941, 40.65 feet below measuring point.

Lowest daily water level, in feet above assumed datum, 1941
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	84.54	84.41	84.16	86.73	87.39	83.92	81.39	83.59	.....	81.21	80.79
2	.....	84.76	.....	84.21	86.30	86.88	83.64	81.61	83.02	.....	82.17	80.72
3	.....	84.48	.....	84.18	86.45	86.47	84.12	82.31	83.14	.....	81.52	82.76
4	a85.52	84.42	.....	84.19	86.92	86.36	84.96	81.93	83.19	a83.16	81.07	80.33
5	.....	84.27	.....	84.74	86.40	86.16	85.32	81.49	83.21	83.81	81.07	80.31
6	.....	84.30	.....	85.30	86.24	86.68	85.27	81.43	83.54	83.12	81.19	80.83
7	.....	84.24	.....	.....	86.23	87.29	84.69	81.87	84.14	83.16	81.14	81.83
8	.....	84.91	a85.71	85.57	86.38	87.71	84.32	81.67	83.62	83.19	80.96	80.63
9	.....	84.93	85.31	.....	86.27	87.09	83.99	82.17	83.56	82.84	81.77	80.43
10	.....	84.57	84.88	85.42	86.39	86.97	83.83	83.18	83.11	82.25	81.16	.....
11	a85.15	84.31	84.78	.....	.....	87.56	83.97	82.59	82.93	82.63	81.16	.....
12	85.03	84.26	84.55	a86.58	86.71	87.37	83.96	82.17	83.27	83.14	81.17	.....
13	84.37	84.07	84.35	86.45	86.46	87.07	84.57	82.47	83.53	82.77	81.07	a81.19
14	84.43	84.03	84.44	86.49	86.42	87.01	83.77	82.74	84.18	82.41	81.05	81.58
15	84.27	84.32	84.59	86.09	86.34	87.70	83.41	82.63	83.41	82.15	81.52	80.87
16	84.28	84.89	84.88	86.16	86.36	86.28	83.73	82.72	83.26	82.11	82.25	80.11
17	94.06	84.34	84.49	86.30	86.66	85.65	83.71	83.62	83.09	81.95	81.40	80.16
18	84.76	84.27	84.67	86.35	87.27	85.45	83.45	83.28	82.81	82.10	81.16	79.96
19	84.78	84.09	84.83	86.32	86.71	85.22	83.89	83.18	82.72	82.95	81.45	79.83
20	84.39	83.95	84.49	86.94	86.59	84.85	84.57	83.20	83.13	82.04	82.27	80.56
21	84.17	83.86	84.34	86.42	86.30	85.29	83.77	83.20	83.77	81.89	81.73	81.43
22	83.98	84.21	84.83	86.37	86.22	85.78	83.04	83.33	83.08	81.64	82.04	.....
23	84.24	84.86	85.09	86.35	86.13	84.47	83.13	83.72	83.07	81.40	82.93	.....
24	84.19	84.53	84.61	86.30	86.37	83.76	82.86	84.25	83.24	81.44	81.64	.....
25	84.34	84.26	84.34	86.30	87.08	83.47	82.48	83.65	83.10	.....	81.17	.....
26	84.93	84.27	84.49	86.45	86.67	83.71	82.44	83.38	82.82	82.89	80.94	.....
27	84.61	84.16	84.05	87.05	86.65	83.64	83.27	83.42	a83.06	81.85	80.84	a82.38
28	84.46	84.38	84.00	86.99	86.58	84.04	82.22	83.32	.....	81.44	80.81	82.30
29	84.36	.....	84.19	86.83	86.54	84.27	81.48	83.37	.....	81.37	80.98	81.41
30	84.40	.....	85.15	86.81	87.24	83.80	81.55	83.54	.....	81.29	81.70	80.94
31	84.20	.....	84.37	.....	87.40	.....	81.48	83.80	.....	81.01	.....	81.11

67. City of Fargo. NW¼NE¼ sec. 18, T. 139 N., R. 48 W. (Described in Water-Supply Paper 845, p. 352). Water level, Jan. 1, 1941, 32.76 feet below measuring point.

a Tape measurement.

Cass County--Continued.

67. City of Fargo--Continued.

Lowest daily water level, in feet above assumed datum, 1941
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	97.45	97.65	97.76	.....	97.85	97.69	97.06	96.13	95.52	95.16	95.91	96.27
2	97.51	97.63	97.76	.....	97.85	b97.67	97.02	96.08	95.51	95.16	95.93	96.27
3	97.52	97.63	97.70	.....	97.85	97.64	96.98	96.03	95.49	95.22	95.93	96.34
4	97.50	97.67	97.70	.....	97.85	97.63	96.97	96.02	95.50	95.25	95.92	96.36
5	97.49	97.71	97.72a	97.90	97.85	97.64	96.98	95.99	95.51	95.24	95.92	96.28
6	97.49	97.68	97.71	.....	97.88	97.69	96.95	95.96	95.45	95.24	95.97	96.28
7	97.53	97.69	97.71	.....	97.87	97.84	96.92	95.94	95.45	95.33	95.99	96.36
8	97.49	97.70	97.76	97.88	97.80	97.80	96.91	95.92	95.45	95.33	96.01	96.34
9	97.49	97.70	97.76	97.87	97.76	97.79	96.88	95.89	95.43	95.33	96.01	96.29
10	97.55	97.70	97.75	97.87	97.76	97.81	96.81	95.89	95.38	95.33	95.97	96.28
11	97.57	97.70	97.71	97.88	97.75	.....	96.77	95.93	95.38	95.41	95.97	96.31
12	97.55	97.75	97.68	97.91	97.77	.....	.....	95.91	95.43	95.41	96.06	96.40
13	97.55	97.71	97.68	97.91	97.79	.....	.....	95.92	95.43	95.46	96.05	96.41
14	97.56	97.71	97.70	97.94	97.83a	97.86	.....	95.93	95.40	95.46	96.06	96.42
15	97.62	97.71	97.82	97.91	97.80	97.77	.....	95.88	95.38	95.44	96.08	96.47
16	97.62	97.75	97.75	97.92	97.87	97.73	.....	95.84	95.34	95.47	96.09	96.48
17	97.58	97.70	97.73	97.94	97.86	97.72	.....	95.86	95.33	95.56	96.14	96.51
18	97.58	97.67	97.76	97.96	97.87	97.69	.....	95.83	95.33	95.55	96.16	96.51
19	97.61	97.66	97.79	97.95	97.83	97.63	96.58	95.81	95.34	95.56	96.17	96.49
20	97.61	97.66	97.73	97.89	97.70	97.52	96.56	95.80	95.31	95.61	96.15	96.50
21	97.61	97.68	97.73	97.87	97.70	97.43	96.53	95.75	95.26	95.63	96.15	96.51
22	97.60	97.66	97.75	97.88	97.63	97.39	96.50	95.73	95.23	95.65	96.14	96.51
23	97.60	97.67	97.74	97.84	97.60	97.38	96.44	95.73	95.24	95.65	96.15	96.52
24	97.61	97.68	97.74	97.85	97.62	97.36	96.39	95.73	95.29	95.66	96.18	96.53
25	97.60	97.68	97.76	97.84	97.66	97.31	96.34	95.67	95.28	.....	96.23	96.53
26	97.62	97.69	97.80	97.84	97.69	97.27	96.29	95.62	95.28	95.81	96.23	96.50
27	97.59	97.69	a97.87	97.84	97.69	97.21	96.26	95.60	95.22	95.75	96.22	96.50
28	97.63	97.70	.....	97.84	97.70	97.19	96.24	95.60	95.18	95.75	96.23	96.51
29	97.65	.....	.....	97.83	97.65	97.17	96.19	95.60	95.18	95.79	96.23	96.53
30	97.68	.....	.....	97.84	97.66	97.13	96.17	95.61	c95.21	95.80	96.23	96.52
31	97.69	.....	.....	.....	97.69	.....	96.16	95.54	.....	95.82	.....	96.52

73. Sam Chesley. NE¼SE¼ sec. 24, T. 139 N., R. 49 W. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 33.34 feet below measuring point.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	95.18	Apr. 5	95.73	July 6	95.30	Oct. 4	93.50
11	95.23	12	95.76	13	95.04	11	93.37
18	95.25	20	95.71	19	95.28	18	93.34
26	95.48	26	96.40	26	94.39	25	93.33
Feb. 1	95.45	May 3	95.70	Aug. 2	95.21	Nov. 1	93.30
8	95.57	10	95.46	9	94.10	8	93.69
16	95.57	17	95.54	16	94.19	15	92.75
22	95.49	24	95.56	23	94.04	22	93.71
Mar. 1	95.29	31	95.79	30	93.93	30	93.88
9	95.45	June 7	95.83	Sept. 6	94.00	Dec. 6	93.85
15	95.68	14	95.93	13	93.73	13	93.92
23	95.69	21	95.69	20	93.61	20	94.04
29	95.74	28	95.35	28	93.30	28	93.98

109. NE¼NW¼ sec. 8, T. 139 N., R. 49 W. (Described in Water-Supply Paper 908) In use as domestic well after Nov. 22, 1941. Water level, Jan. 4, 1941, 33.02 feet below measuring point.

Water level, in feet above assumed datum, 1941

Jan. 4	97.13	Jan. 26	96.15	Feb. 15	95.05	Mar. 8	97.21
11	97.18	Feb. 1	95.58	22	94.66	15	94.33
18	96.69	8	95.53	Mar. 1	94.55	23	94.25

a Tape measurement. b Pumping of well 14 began.
c Pumping of well 14 stopped.

Cass County--Continued

109.--Continued.

Water level, in feet above assumed datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 29	94.27	June 7	97.39	Aug. 16	94.04	Oct. 25	94.87
Apr. 5	94.20	14	96.55	23	93.94	Nov. 1	94.29
12	94.31	21	97.24	30	93.81	8	93.67
19	94.60	28	96.72	Sept. 6	93.73	15	93.68
26	94.72	July 5	96.23	13	93.74	22	90.56
May 3	94.82	12	95.77	20	93.64	29	89.99
10	94.79	19	95.24	28	93.62	Dec. 6	89.64
17	95.11	26	94.92	Oct. 4	93.39	13	89.43
24	95.10	Aug. 2	94.06	11	92.30	20	89.38
31	92.76	9	94.22	18	92.48	27	89.39

122. Leonard Hobbs. NE¼NE¼ sec. 2, T. 139 N., R. 49 W. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 17.37 feet below measuring point.

Water level, in feet above assumed datum, 1941

Jan. 4	99.33	Apr. 5	99.37	July 6	104.97	Oct. 4	104.03
11	99.30	12	99.84	12	104.90	11	104.17
18	99.22	19	100.38	19	104.80	18	104.16
26	99.18	26	100.81	26	104.56	25	104.15
Feb. 1	99.14	May 3	101.21	Aug. 2	104.27	Nov. 1	104.20
8	99.10	10	101.11	9	104.05	8	104.00
16	99.06	17	101.24	16	104.08	15	103.96
22	98.98	24	101.11	23	104.01	22	103.84
Mar. 1	99.00	31	101.25	30	104.06	29	103.85
9	98.92	June 7	101.72	Sept. 6	103.81	Dec. 6	103.68
15	98.97	14	103.66	13	103.81	13	103.62
23	99.10	21	104.55	20	103.80	20	103.58
29	99.30	28	104.96	28	103.81	27	103.37

124. H. R. Kollman. SE¼NE¼ sec. 2, T. 139 N., R. 49 W. (Described in Water-Supply Paper 908). Equipped with pump and placed in use for domestic supply Mar. 23, 1941. Measurements discontinued. Water level, Jan. 4, 1941, 32.84 feet below measuring point.

Water level, in feet above assumed datum, 1941

Jan. 4	87.58	Jan. 26	88.21	Feb. 16	88.66	Mar. 9	89.00
11	87.79	Feb. 1	88.32	22	88.70	15	89.08
18	87.96	8	88.49	Mar. 1	88.89		

127. City of Fargo. NW¼SE¼ sec. 2, T. 139 N., R. 49 W. (Described in Water-Supply Paper 908). Water level, Jan. 4, 1941, 19.06 feet below measuring point.

Water level, in feet above assumed datum, 1941

Jan. 4	91.20	May 10	91.42	July 2	59.12	Sept. 13	44.11
11	91.13	17	91.44	6	57.92	20	43.41
18	91.09	24	91.43	9	58.14	28	43.15
26	91.16	31	91.59	12	56.72	30	42.43
Feb. 1	91.13	June 2	91.67	17	55.25	Oct. 4	47.19
8	91.20	4	90.24	19	54.78	11	54.67
16	91.16	7	88.56	23	53.96	18	59.92
22	91.07	13	85.23	26	53.33	25	63.01
Mar. 1	91.10	14	84.02	28	52.84	Nov. 1	65.18
9	91.06	18	79.16	Aug. 2	52.00	8	66.75
15	91.04	19	76.64	6	51.37	15	67.55
23	91.16	20	68.43	7	51.22	22	69.82
29	91.19	21	65.09	8	51.04	29	71.42
Apr. 5	91.00	23	63.61	9	50.84	Dec. 6	71.30
12	91.25	24	62.79	16	48.93	13	72.17
19	91.23	27	61.12	23	47.30	20	73.90
26	91.37	28	60.64	30	45.85	27	73.58
May 3	91.44	30	59.84	Sept. 6	44.94		

Cavalier County

43. City of Langdon. SE¼SW¼ sec. 14, T. 161 N., R. 60 W. Affected by impounded water. (Described in Water-Supply Papers 840, p. 322, and 845, p. 352).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	107.14	Apr. 5	107.48	July 5	111.02	Oct. 4	114.58
11	107.19	12	107.91	12	111.23	11	115.12
18	107.17	19	108.85	19	110.77	18	115.73
25	107.23	26	109.27	26	111.10	25	116.23
Feb. 1	107.25	May 3	109.73	Aug. 2	111.27	Nov. 1	116.69
8	107.27	10	109.98	9	111.44	8	117.02
17	107.23	17	110.31	16	111.39	15	117.35
22	107.27	24	110.54	23	111.48	22	117.52
Mar. 1	107.35	31	110.77	30	111.06	29	117.73
8	107.39	June 7	110.96	Sept. 6	111.10	Dec. 6	117.98
15	107.42	14	111.02	13	111.31	13	118.10
22	107.39	21	111.23	20	113.08	20	118.23
29	107.36	28	111.14	27	113.77	27	118.23

44. City of Langdon. SW¼SE¼ sec. 14, T. 161 N., R. 60 W. Affected by impounded water. (Described in Water-Supply Papers 840, p. 322, and 845, p. 353).

Water level, in feet above datum, 1941

Jan. 4	128.16	Apr. 5	128.25	July 5	129.58	Oct. 4	131.91
11	128.33	12	121.81	12	132.75	11	131.75
18	128.18	19	129.29	19	131.20	18	131.08
25	128.20	26	132.58	26	133.12	25	131.25
Feb. 1	128.22	May 3	133.79	Aug. 2	130.83	Nov. 1	131.12
8	128.22	10	132.77	9	124.77	8	131.25
17	128.22	17	133.12	16	131.33	15	131.33
22	128.10	24	132.10	23	131.29	22	131.45
Mar. 1	128.18	31	132.91	30	131.25	29	131.56
8	128.14	June 7	133.16	Sept. 6	131.29	Dec. 6	131.41
15	128.16	14	132.25	13	130.91	13	131.50
22	128.14	21	133.25	20	131.25	20	131.33
29	128.18	28	131.08	27	131.29	27	130.75

45. City of Langdon. SW¼NW¼ sec. 23, T. 161 N., R. 60 W. Affected by impounded water. (Described in Water-Supply Papers 840, p. 322, and 845, p. 353).

Water level, in feet above datum, 1941

Jan. 4	130.79	Apr. 5	129.38	July 5	136.25	Oct. 4	136.40
11	130.67	12	135.98	12	136.21	11	136.52
18	130.57	19	135.88	19	136.13	18	136.40
25	130.42	26	136.88	26	135.96	25	136.09
Feb. 1	130.25	May 3	137.00	Aug. 2	136.09	Nov. 1	136.00
8	130.11	10	136.88	9	135.90	8	135.84
15	130.02	17	136.75	16	135.75	15	135.75
22	129.90	24	136.67	23	135.59	22	135.52
Mar. 1	129.87	31	136.38	30	135.42	29	135.71
8	129.63	June 7	136.50	Sept. 6	136.59	Dec. 6	135.46
15	129.46	14	136.25	13	136.36	13	135.04
22	129.40	21	136.09	20	136.38	20	134.29
29	129.29	28	135.67	27	136.73	27	134.09

46. City of Langdon. NE¼SE¼ sec. 14, T. 161 N., R. 60 W. (Described in Water-Supply Papers 840, p. 322, and 845, p. 354).

Water level, in feet above datum, 1941

Jan. 4	98.00	Feb. 1	97.56	Mar. 1	97.25	Mar. 29	96.92
11	97.92	8	97.47	8	97.21	Apr. 5	96.92
18	97.75	15	97.35	15	97.10	12	98.54
25	97.60	22	97.25	22	97.00	19	99.75

Cavalier County--Continued

46. City of Langdon.--Continued.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 26	101.67	June 28	103.75	Aug. 30	101.67	Nov. 1	106.54
May 3	102.42	July 5	102.50	Sept. 6	103.54	8	106.17
10	102.65	12	102.21	13	104.63	15	106.25
17	102.94	19	102.96	20	104.04	22	105.95
24	102.83	26	102.94	27	106.65	29	105.33
31	102.77	Aug. 2	102.58	Oct. 4	106.44	Dec. 6	105.19
June 7	102.98	9	102.33	11	107.10	13	104.71
14	103.83	16	102.00	18	106.54	20	104.25
21	104.08	23	101.81	25	106.58	27	103.81

Dickey County

72A. State of North Dakota. NE¼ sec. 36, T. 131 N., R. 64 W. (Described in Water-Supply Paper 886, p. 535).

Water level, in feet above datum, 1941

Jan. 4	99.73	Apr. 5	99.78	July 5	99.98	Oct. 4	99.86
11	99.78	12	99.76	12	99.90	11	99.90
18	99.75	19	99.94	19	99.88	18	99.88
25	99.80	26	99.90	26	99.78	25	99.88
Feb. 1	99.78	May 3	99.94	Aug. 2	99.73	Nov. 1	99.92
8	99.78	10	99.92	9	99.69	8	99.94
15	99.78	17	99.85	16	99.66	15	99.94
22	99.75	24	99.86	23	99.67	22	99.94
Mar. 1	99.75	31	99.86	30	99.67	29	99.94
8	99.84	June 7	99.90	Sept. 6	99.69	Dec. 6	99.94
15	99.84	14	100.15	13	99.70	13	99.96
22	99.78	21	100.02	20	99.84	20	99.96
29	99.79	28	100.02	27	99.86	27	99.92

92. S. A. Reko. NE¼NW¼ sec. 27, T. 131 N., R. 60 W. (Described in Water-Supply Paper 845, p. 354).

Water level, in feet above datum, 1941

Jan. 5	99.26	Apr. 5	99.39	July 5	99.93	Oct. 4	99.97
11	99.34	12	99.51	12	99.95	11	99.82
18	99.29	19	99.59	19	99.89	18	99.75
25	99.27	26	99.62	26	99.83	25	99.74
Feb. 1	99.31	May 3	99.58	Aug. 2	99.78	Nov. 1	99.81
8	99.29	10	99.64	9	99.76	8	99.76
15	99.26	17	99.68	16	99.69	15	99.82
22	99.27	24	99.68	23	99.70	22	99.77
Mar. 1	99.28	31	99.67	30	99.69	29	99.76
8	99.31	June 7	99.85	Sept. 6	100.41	Dec. 6	99.81
15	99.33	14	99.99	13	99.74	13	99.81
22	99.31	21	99.91	20	99.83	20	99.82
29	99.31	28	99.96	27	99.68	27	99.77

93. Measurements discontinued.

95. Standard Oil Co. NE¼NE¼ sec. 29, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Measurements discontinued after July 1941 when pipe was pulled. Water levels, in feet below measuring point, 1941: May 8, 19.25; July 25, 19.15.

97. Molly Bishop. NE¼NE¼ sec. 32, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Used driven stock well, diameter 1¼ inches, depth 21 feet. Measuring point, joint in pitcher pump, 1.1 feet above land surface, 1,314.3 feet above mean sea level. Water levels, in feet below measuring point: Aug. 8, 1940, 15.11; May 8, 1941, 14.12; July 25, 1941, 13.67; Oct. 15, 1941, 13.95.

98. Albert M. Schmit. NE¼NE¼ sec. 20, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Now unused. Influenced by domestic well 5 feet away. Water levels, in feet below measuring point, 1941: May 8, 21.67; Oct. 15, 21.32.

Dickey County--Continued

99. No measurements made in 1941.

100. Paul Roney. SE¼NE¼ sec. 21, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Measuring point, 1,326.05 feet above mean sea level.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
May 8	22.25	July 25	22.24	Oct. 15	22.21
21	22.24	Sept. 3	22.21		

101. D. C. Botts. NE¼NW¼ sec. 7, T. 129 N., R. 59 W. (Described in Water-Supply Paper 908). Old well pipe pulled Oct, 1941. New pipe driven on site of old well Oct. 16, 1941. Unused observation well, diameter 1¼ inches, depth 18 feet. New measuring point, top of casing, 0.34 foot above old one, and 113.72 feet above datum. Observer, Art Hendrickson, Ludden.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	99.62	Apr. 5	99.95	June 28	101.15	Sept.27	100.54
11	99.61	12	100.09	July 5	101.19	Oct. 18	100.50
18	99.61	19	100.20	12	101.20	25	100.50
25	99.62	26	100.21	19	101.14	Nov. 1	100.50
Feb. 1	99.63	May 3	100.58	28	101.03	8	100.49
8	99.61	10	100.59	Aug. 2	100.84	15	100.51
15	99.60	13	100.73	9	100.78	22	100.48
22	99.61	17	100.78	16	100.74	29	100.48
Mar. 1	99.59	24	100.83	23	100.72	Dec. 6	100.48
8	99.60	31	100.89	30	101.05	13	100.48
15	99.59	June 7	100.92	Sept. 6	100.99	20	100.48
22	99.58	14	100.97	13	100.91	27	100.47
30	99.64	21	101.08	20	100.89		

102. State of North Dakota. SE¼SE¼ sec. 16, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: May 8, 24.45; July 25, a/27.79; Aug. 30, 24.06; Oct. 15, 25.76.

103. Floyd Ferguson. W½SW¼ sec. 27, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908).

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level
May 8	11.75	July 25	11.60	Oct. 15	11.85
July 12	11.46	Sept. 3	11.92		

104. Lynus Sitts, Jr. SW¼SW¼ sec. 33, T. 131 N., R. 59 W. Used driven stock well, diameter 1¼ inches, depth 14.9 feet. Measuring point, joint of pitcher pump, 2.3 feet above land surface. Water level Sept. 7, 1940, 12.58 feet below measuring point.

Water level, in feet below measuring point, 1940-41

Sept. 7, 1940	12.58	July 25, 1941	11.02	Oct. 15, 1941	11.31
May 8, 1941	11.19	Sept. 3	11.56		

105. H. G. Martin, administrator. SW¼NW¼ sec. 9, T. 130 N., R. 59 W (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: May 8, 13.58; July 21, 12.92; Oct. 15, 13.22.

106. Frank Elliott. NE¼NW¼ sec. 28, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: May 8, 14.05; July 25, 13.92; Sept. 3, 14.22; Oct. 16, 13.97.

a Probably local drawdown.

Dickey County--Continued.

111. Johnny Hoffsomer. SW¼SW¼ sec. 20, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Previous measuring point, top of pitcher pump, 1,304.46 feet above mean sea level. Alternate measuring point, top of casing, 1,303.6 feet above mean sea level. Water levels, in feet above sea level, 1941: May 8, 1,292.6; July 25, 1,292.9; Oct. 15, 1,292.24.

113. Union Central Life Insurance Co. NW¼NW¼ sec. 30, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: May 8, 12.75; Oct. 15, 13.58.

115. Heine Holling. SW¼SW¼ sec. 21, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: May 8, 10.48; July 25, 9.79; Oct. 15, 10.35.

117. E. P. Wilson. NW¼NE¼ sec. 22, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: May 8, 11.27; July 25, 10.59; Oct. 16, 11.21.

120. Esterby Estate. SW¼SE¼ sec. 3, T. 129 N., R. 59 W. Used driven garden well, diameter 1¼ inches, depth 13.2 feet. Measuring point, top of casing, 1,308.3 feet above sea level, and 2.6 feet above land surface. Water levels, in feet below measuring point, 1941: May 15, 6.33; July 21, 7.63; Oct. 15, 8.38.

121. M. J. Reinhart. SW¼NW¼ sec. 3, T. 130 N., R. 59 W. Used driven domestic well, diameter 1¼ inches, depth 14 feet. Measuring point, top of pitcher pump, 1,314.0 feet above sea level, and 3.3 feet above land surface Water levels, in feet below measuring point, 1941: May 19, 12.23; July 25, 11.81; Sept. 3, 12.24; Oct. 15, 12.28.

127. City of Oakes. NE¼NW¼ sec. 28, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	100.28	Apr. 5	100.18	July 5	100.97	Oct. 4	100.39
11	100.27	12	100.21	12	100.81	11	100.39
18	100.27	19	100.33	19	100.71	18	100.37
25	100.27	26	100.33	26	100.56	25	100.35
Feb. 1	100.29	May 3	100.31	Aug. 2	100.46	Nov. 1	100.35
8	100.29	8	100.39	9	100.39	8	100.35
15	100.29	17	100.35	16	100.23	15	100.36
22	100.29	24	100.65	23	100.18	22	100.36
Mar. 1	100.29	31	100.65	30	100.10	29	100.39
8	100.29	June 7	100.51	Sept. 6	100.10	Dec. 6	100.41
15	100.30	14	100.65	13	100.10	13	100.41
22	100.41	21	100.89	20	100.21	20	100.40
29	101.05	28	100.93	27	100.27	27	100.40

128. City of Oakes. NE¼NW¼ sec. 28, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Jan. 4	99.45	Apr. 5	100.14	July 5	100.64	Oct. 4	100.26
11	99.46	12	100.15	12	100.58	11	100.26
18	99.45	19	100.20	19	100.51	18	100.28
25	99.46	26	100.23	26	100.41	25	100.28
Feb. 1	99.47	May 3	100.20	Aug. 2	100.28	Nov. 1	100.28
8	99.47	8	100.28	9	100.21	8	100.28
15	99.47	17	100.31	16	100.18	15	100.28
22	99.47	24	100.26	23	100.13	22	100.28
Mar. 1	99.47	31	100.24	30	100.12	29	99.99
8	99.44	June 7	100.35	Sept. 6	100.15	Dec. 6	100.28
15	99.48	14	100.47	13	100.15	13	100.28
22	99.65	21	100.65	20	100.16	20	100.27
29	99.73	28	100.64	27	100.20	27	100.27

Dickey County--Continued

129. A. M. Dahlbeck. SW¼NW¼ sec. 21, T. 131 N., R. 59 W. (Described in Water-Supply Paper 908). Now unused. Influenced by domestic well 8 feet south. Water levels, in feet below measuring point, 1941: May 7, 14.16; Oct. 16, 13.96.

130. Anton Kliment. SW¼SW¼ sec. 20, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Measurements discontinued.

131. Corrigan. NW¼SE¼ sec. 17, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Measurements discontinued.

132. H. J. Johnson. NW¼NW¼ sec. 26, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Measurements discontinued.

133. J. C. Peterson. NE¼NE¼ sec. 32, T. 130 N., R. 59 W. (Described in Water-Supply Paper 908). Measurements discontinued.

134. A. F. Hankel. NW¼NE¼ sec. 9, T. 129 N., R. 59 W. (Described in Water-Supply Paper 908). Used for stock. Measuring point, 1,306.4 feet above sea level. Water levels, in feet below measuring point, 1941: May 8, 6.55; July 21, 6.96; Oct. 16, 8.75.

135 V. S. Doyen. SW¼SW¼ sec. 24, T. 129 N., R. 60 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	99.35	Mar. 15	99.35	Aug. 21	99.23	Nov. 1	99.37
11	99.53	22	99.35	30	99.43	8	99.38
Feb. 1	99.35	29	99.36	Sept. 6	99.36	15	99.38
16	98.35	Apr. 5	99.37	13	99.35	Dec. 6	99.37
22	99.52	12	98.89	20	99.36	13	99.37
Mar. 1	99.36	26	99.37	Oct. 4	99.37	20	99.37
8	99.34	May 10	99.39	11	99.37	27	99.37

170. Axel Daniels. SW¼SE¼ sec. 34, T. 129 N., R. 60 W. (Described in Water-Supply Paper 908). No measurements made in 1941.

171. Stoldenben. NE¼SE¼ sec. 27, T. 129 N., R. 60 W. (Described in Water-Supply Paper 908). No measurements made in 1941.

Divide County

68. J. M. Johnson. SE¼SW¼ sec. 22, T. 163 N., R. 97 W. (Described in Water-Supply Paper 845, p. 354). Measurements discontinued because well went dry Nov. 1940. It was still dry on Oct. 25, 1941.

69. J. M. Johnson. SE¼SW¼ sec. 22, T. 163 N., R. 99 W. (Described in Water-Supply Paper 845, p. 355). Well found plugged at 15.9 feet on Oct. 25, 1941.

Water level, in feet below measuring point, 1941

Jan. 5	98.75	Feb. 2	98.62	Mar. 2	98.56	Mar. 23	98.64
12	98.73	9	98.61	9	98.59	30	98.63
19	98.71	16	98.59	16	98.61	Apr. 6	98.58
25	98.65	23	98.57				

70. J. M. Johnson. SE¼SW¼ sec. 22, T. 163 N., R. 67 W. (Described in Water-Supply Paper 845, p. 355).

Water level, in feet below measuring point, 1941

Jan. 5	97.75	Feb. 2	97.63	Mar. 2	97.49	Mar. 30	115.49
12	97.72	9	97.56	9	a115.49	Apr. 6	106.29
19	97.69	16	97.54	16	115.49	Oct. 25	97.85
25	97.66	23	97.52	23	115.49		

117. A. U. Anderson, Overseer. NE¼NE¼ sec. 34, T. 163 N., R. 100 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 20, 18.04; Oct. 25, 18.08.

a Flooded by thaw water from slough.

Dunn County

89. Knute Haugen. NW¼NW¼ sec. 18, T. 145 N., R. 91 W. (Described in Water-Supply Paper 845, p. 355).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	98.95	Apr. 12	99.70	July 14	98.88	Oct. 11	99.00
11	99.17	19	99.57	19	98.91	18	98.99
18	99.01	26	99.61	26	98.97	21	99.35
25	98.97	May 3	99.78	Aug. 2	98.99	25	98.97
Feb. 1	99.25	10	99.18	9	98.99	Nov. 1	99.08
8	99.13	17	98.91	16	98.95	8	99.05
15	99.05	24	98.98	23	99.08	15	99.19
22	99.09	31	99.08	30	99.00	22	98.89
Mar. 1	99.35	June 7	98.99	Sept. 8	99.08	29	99.21
8	99.18	14	98.89	13	99.09	Dec. 6	98.97
15	99.12	21	98.94	20	99.11	13	99.00
22	98.99	28	99.17	27	99.01	20	99.00
29	99.68	July 5	99.02	Oct. 4	99.08	27	99.92
Apr. 5	99.69						

Eddy County

17. L. S. Rude. SE¼NW¼ sec. 9, T. 150 N., R. 66 W. (Described in Water-Supply Paper 845, p. 355). Water levels, in feet below measuring point, 1941: Apr. 4, 10.39; Oct. 18, 9.14.

18. Stockyards. NW¼SW¼ sec. 9, T. 150 N., R. 66 W. (Described in Water-Supply Paper 840, p. 323).

Water level, in feet above datum, 1941

Jan. 4	100.31	Apr. 5	101.09	July 5	102.53	Oct. 4	102.30
11	100.24	12	101.73	12	102.52	11	102.12
20	100.12	19	101.62	19	102.47	18	102.41
25	100.19	26	101.67	26	102.39	25	102.27
Feb. 1	100.16	May 3	101.76	Aug. 2	102.38	Nov. 1	102.25
8	100.13	10	101.74	9	102.31	8	102.26
18	100.11	17	102.12	16	102.25	15	102.32
22	100.08	24	101.92	23	102.24	22	102.28
Mar. 1	100.08	31	101.92	30	102.21	29	102.04
8	100.04	June 7	102.01	Sept. 6	102.14	Dec. 6	102.21
15	100.10	14	102.16	13	102.15	13	101.83
22	100.16	21	102.26	20	102.13	20	101.99
29	100.35	28	102.03	27	102.36	27	101.96

19. Gilbert Olson. SE¼NW¼ sec. 9, T. 150 N., R. 66 W. (Described in Water-Supply Paper 845, p. 356). Water levels, in feet below measuring point, 1941: Apr. 4, 14.57; Oct. 18, 14.57.

20. Knute Egger. SE¼NW¼ sec. 9, T. 150 N., R. 66 W. (Described in Water-Supply Paper 845, p. 356). Water levels, in feet below measuring point, 1941: Apr. 4, 20.51; Oct. 18, 18.95.

21. Elmer Moe. NE¼NW¼ sec. 9, T. 150 N., R. 66 W. (Described in Water-Supply Paper 845, p. 356). Water levels, in feet below measuring point, 1941: Apr. 4, 22.13; Oct. 18, 20.62.

22. John R. Warsing. SE¼NW¼ sec. 9, T. 150 N., R. 66 W. (Described in Water-Supply Paper 845, p. 356). Water levels, in feet below measuring point, 1941: Apr. 4, a/ below 16.6; Oct. 18, 14.91.

154. Pfau Estate. NE¼SE¼ sec. 28, T. 148 N., R. 67 W. (Described in Water-Supply Paper 908). Unreduced flow, in gallons a minute, 1941: Apr. 4, 5.9; Oct. 18, 7.8.

a Well partly plugged.

Emmons County

123. State of North Dakota. NE¼NE¼ sec. 8, T. 132 N., R. 74 W. Abandoned dug farm well, diameter 36 inches, depth 20 feet. Measuring point, painted arrow on wood platform, 1.3 feet above land surface. Water levels, in feet below measuring point: July 1, 1940, 14.44; Nov. 23, 15.69; Apr. 11, 1941, 15.58; Oct. 17, 1941, 14.36.

Foster County

125. J. W. Wampler. NW¼NE¼ sec. 22, T. 145 N., R. 66 W. (Described in Water-Supply Paper 908). On Oct. 19, 1941, well found with platform destroyed, curbing stove in, measuring point destroyed. Water levels, in feet below measuring point, 1941: Apr. 4, 15.71; Oct. 19, about 15.3.

Golden Valley County

1. Mrs. Tangen. SE¼SE¼ sec. 2, T. 139 N., R. 106 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 17, 81.37; Oct. 23, between 71 and 72 feet.

Grant County

121. R. O. Ozbun. NE¼NE¼ sec. 10, T. 134 N., R. 85 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 16, 23.57; Oct. 22, 23.40.

Griggs County

1. Griffith Loan and Investment Company. SW¼NW¼ sec. 20, T. 144 N., R. 59 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 6, 27.95; Oct. 14, 26.23.

Hettinger County

82. L. F. Everhart. SE¼NW¼ sec. 5, T. 133 N., R. 93 W. (Described in Water-Supply Paper 845, p. 357).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	99.73	Jan. 25	99.74	Feb. 15	99.70	Mar. 8	99.72
11	99.73	Feb. 1	99.73	22	99.70	Apr. 16	99.97
18	99.73	8	99.72	Mar. 1	99.71	Oct. 22	100.22

Kidder County

50. Herman Petersen. SW¼SW¼ sec. 9, T. 138 N., R. 73 W. (Described in Water-Supply Paper 840, p. 323).

Water level, in feet above datum, 1941

Apr. 10	99.96	June 14	100.71	Aug. 23	100.55	Oct. 25	100.51
12	99.96	21	100.70	30	100.55	Nov. 1	100.59
19	99.95	28	100.68	Sept. 8	100.49	10	100.87
26	100.06	July 5	100.69	13	100.49	19	100.01
May 3	99.92	12	100.69	20	100.68	22	99.88
10	99.98	19	100.58	27	100.66	29	100.01
17	99.99	26	100.42	Oct. 4	100.66	Dec. 8	100.01
24	99.98	Aug. 2	100.44	11	100.91	13	100.02
31	100.21	9	100.53	18	100.93	20	100.08
June 7	100.29	16	100.42	19	100.94	27	100.06

Kidder County--Continued

147. Phillip Mitteleider. Center of S½ sec. 27, T. 139 N., R. 71 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 9.33; Oct. 18, 5.35.

148. Chas. Woessner. NE¼SW¼ sec. 10, T. 139 N., R. 72 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 18.19; Oct. 19, 16.22.

149. Village of Tappen. SW¼NW¼ sec. 10, T. 139 N., R. 71 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	99.18	Apr. 5	99.46	July 5	100.59	Oct. 4	100.77
25	99.21	12	99.53	12	100.84	18	100.75
Feb. 1	99.11	19	99.59	19	100.75	25	100.75
8	99.12	26	99.66	26	100.59	Nov. 1	100.75
15	99.18	May 3	99.71	Aug. 2	100.67	8	100.84
22	99.18	10	99.77	9	100.59	22	100.67
Mar. 1	99.18	17	99.83	16	100.55	29	100.60
8	99.14	24	99.77	23	100.59	Dec. 6	100.68
15	99.30	31	99.81	30	100.42	13	100.67
22	99.35	June 7	100.11	Sept. 6	100.59	20	100.58
29	99.47	14	100.19	27	100.77	27	100.62

150. Ramon Grimm. SW¼NW¼ sec. 14, T. 142 N., R. 70 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 9, 39.31; Oct. 19, 38.62.

151. Mrs. Fagereng. NW¼NE¼ sec. 23, T. 142 N., R. 70 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 9, 20.62; Oct. 19, 20.84.

152. Northern Pacific Railway. SW¼NE¼ sec. 12, T. 142 N., R. 70 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 9, 37.35; Oct. 19, 37.23.

166. Jake Schaurer (formerly Chris Werre). SW¼SW¼ sec. 3, T. 139 N., R. 71 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 9, 17.80; Oct. 19, 16.75.

La Moure County

1. Town of Edgeley. SW¼NW¼ sec. 3, T. 133 N., R. 64 W. (Described in Water-Supply Paper 908).

Water level, in feet above datum, 1941

Jan. 4	99.83	Apr. 5	99.39	June 21	99.17	Sept. 27	101.95
11	99.99	19	100.12	July 5	100.52	Oct. 4	101.96
Feb. 1	100.21	26	99.79	19	100.60	11	102.00
8	100.12	May 3	100.15	26	98.19	18	102.00
15	100.19	10	100.46	Aug. 2	98.76	Nov. 1	99.63
22	98.51	17	99.23	9	98.74	15	99.75
Mar. 8	99.03	24	98.48	16	98.93	29	99.59
22	100.12	June 7	99.53	30	98.91	Dec. 6	100.91
29	99.10	14	99.01	Sept. 20	100.85		

2A. Mrs. Fidela Davis. SW¼SE¼ sec. 24, T. 134 N., R. 64 W. (Described in Water-Supply Paper 886, p. 538).

Water level, in feet above datum, 1941

Jan. 13	101.61	Apr. 15	102.57	May 31	102.66	July 20	102.88
22	101.92	23	102.42	June 8	102.99	27	102.56
29	101.45	May 1	102.50	17	102.95	Aug. 3	102.31
Feb. 7	101.93	8	102.51	26	103.20	11	102.17
Mar. 18	101.91	15	102.73	July 4	103.25	19	102.14
28	102.40	24	102.06	13	102.61	27	102.06
Apr. 5	101.50						

Logan County

142. H. A. McNutt. NW¼SE¼ sec. 18, T. 135 N., R. 72 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 6.56; Oct. 17, 6.70.

143. Oscar France. W½SW¼ sec. 17, T. 135 N., R. 72 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 13.75; Oct. 17, 13.77.

144. Pete Draeger. SW¼NW¼ sec. 21, T. 135 N., R. 72 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 11.18; Oct. 17, 11.33.

145. I. Hildenbrand. SW¼SW¼ sec. 22, T. 133 N., R. 71 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 9.17; Oct. 17, 9.77.

146. George Dummland. NW¼NW¼ sec. 27, T. 135 N., R. 72 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 10, 32.63; Oct. 17, 32.33.

McHenry County

1. Joe Keller. SE¼NW¼ sec. 32, T. 154 N., R. 78 W., (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 22, 27.43; Oct. 28, 27.17.

101. Denbigh Forest Experiment Station well 1. United States Forest Service. SW cor. SW¼NW¼ sec. 36, T. 156 N., R. 78 W. (Described in Water-Supply Paper 886, p. 539). Measurements furnished by Lake Statee Forest Experiment Station, United States Forest Service, University Farm, St. Paul, Minn.

Water level, in feet above datum, 1940-41

Date	Water level	Date	Water level	Date	Water level
June 30, 1940	99.91	Oct. 31, 1940	99.32	July 15, 1941	100.87
July 15	99.80	Nov. 15	99.27	31	100.80
Aug. 1	99.55	Apr. 15, 1941	99.95	Aug. 22	100.61
15	99.55	30	100.07	Sept. 3	100.55
30	99.46	May 17	100.70	Oct. 3	101.00
Sept.16	99.43	June 2	100.89	28	101.38
30	99.36	19	100.70	Dec. 9	101.47
Oct. 16	99.34	July 1	100.93		

102. Denbigh Forest Experiment Station well 2. United States Forest Service. NW cor. SW¼NW¼ sec. 36, T. 156 N., R. 78 W. (Described in Water-Supply Paper 886, p. 540). Measurements furnished by Lake States Forest Experiment Station, United States Forest Service, University Farm, St. Paul, Minn.

Water level, in feet above datum, 1940-41

June 30, 1940	100.07	Oct. 31, 1940	99.37	July 15, 1941	101.06
July 15	99.94	Nov. 15	99.30	22	100.95
Aug. 1	99.66	Apr. 15, 1941	99.84	Aug. 22	100.77
15	99.61	30	99.98	Sept. 3	100.72
30	99.56	May 17	100.92	Oct. 3	101.28
Sept.16	99.53	June 2	101.13	28	101.63
30	99.43	19	100.96	Dec. 9	101.74
Oct. 16	99.41	July 1	101.13		

103. Denbigh Forest Experiment Station well 3. United States Forest Service. NE cor. SW¼NW¼ sec. 36, T. 156 N., R. 78 W. (Described in Water-Supply Paper 886, p. 541). Measurements furnished by Lake States Forest Experiment Station, United States Forest Service, University Farm, St. Paul, Minn.

Water level, in feet above datum, 1940-41

June 30, 1940	99.98	Aug. 15, 1940	99.54	Sept.30, 1940	99.35
July 15	99.87	30	99.49	Oct. 16	99.34
Aug. 1	99.58	Sept.16	99.46	31	99.32

McHenry County--Continued

103. Denbigh Forest Experiment Station well 3.--Continued.

Water level, in feet above datum, 1940-41

Date	Water level	Date	Water level	Date	Water level
Nov. 15, 1940	99.28	June 19, 1941	100.83	Sept. 3, 1941	100.62
Apr. 15, 1941	99.79	July 1	101.06	Oct. 3	101.12
30	100.06	15	101.00	28	101.49
May 17	100.78	31	100.88	Dec. 9	101.57
June 2	101.00	Aug. 22	100.69		

104. Denbigh Forest Experiment Station well 4. United States Forest Service. SE cor. SW¼NW¼ sec. 36, T. 156 N., R. 78 W. (Described in Water-Supply Paper 886, p. 542). Measurements furnished by Lake States Forest Experiment Station, United States Forest Service, University Farm, St. Paul, Minn.

Water level, in feet above datum, 1940-41

June 30, 1940	99.86	Oct. 31, 1940	99.24	July 15, 1941	100.71
July 15	99.76	Nov. 15	99.19	31	100.59
Aug. 1	(a)	Apr. 15, 1941	99.64	Aug. 22	100.47
15	(a)	30	99.90	Sept. 3	100.48
30	b 99.42	May 17	100.57	Oct. 3	100.83
Sept. 16	99.37	June 2	100.75	28	101.25
30	99.27	19	100.57	Dec. 7	101.30
Oct. 16	99.25	July 1	100.81		

105. Denbigh Forest Experiment Station well 5. United States Forest Service. SE cor. SE¼SE¼ sec. 36, T. 156 N., R. 78 W. (Described in Water-Supply Paper 886, p. 543). Measurements furnished by Lake States Forest Experiment Station, United States Forest Service, University Farm, St. Paul, Minn.

Water level, in feet above datum, 1940-41

June 30, 1940	99.66	Oct. 31, 1940	99.06	July 15, 1941	100.27
July 15	99.56	Nov. 15	99.01	31	100.22
Aug. 1	99.34	Apr. 15, 1941	99.65	Aug. 22	100.14
15	99.36	30	99.78	Sept. 3	100.15
30	99.33	May 17	100.19	Oct. 3	100.66
Sept. 16	99.30	June 2	100.33	28	101.07
30	99.19	19	100.07	Dec. 9	101.40
Oct. 16	99.08	July 1	100.31		

106. Denbigh Forest Experiment Station well point 1. United States Forest Service. SW cor. NW¼SW¼ sec. 36, T. 156 N., R. 78 W. (Described in Water-Supply Paper 886, p. 544).

Water level, in feet above datum, 1940-41

June 30, 1940	99.87	Oct. 31, 1940	99.35	July 15, 1941	100.80
July 15	99.74	Nov. 15	99.29	31	100.72
Aug. 1	99.60	Apr. 15, 1941	99.81	Aug. 22	100.52
15	99.54	30	100.03	Sept. 3	100.54
30	99.49	May 17	100.65	Oct. 3	100.80
Sept. 16	99.35	June 2	100.75	28	101.24
30	99.30	19	100.70	Dec. 6	101.45
Oct. 16	99.32	July 1	100.90		

113. Mrs. M. Notbohm. SW¼SE¼ sec. 1, T. 151 N., R. 77 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 22, 15.72; Oct. 28, 14.62.

156. Minneapolis, St. Paul, and Sault Sainte Marie Railway. SW¼NW¼ sec. 6, T. 152 N., R. 79 W. (Described in Water-Supply Paper 908). Erroneously located in SW¼ sec. 6 in Water-Supply Paper 908. Water levels, in feet below measuring point, 1941: Apr. 22, 21.27; May 10, 20.3; Oct. 28, 22.42.

a Dry. b Well deepened.

McHenry County--Continued.

157. Federal Land Bank. SE¼SE¼ sec. 9, T. 153 N., R. 78 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 22, 25.40; Oct. 28, 25.39.

158. Cities Service. NE¼NE¼ sec. 8, T. 155 N., R. 79 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 23, 4.54; Oct. 28, 3.29.

159. Harold H. Sullwold. NW¼SE¼ sec. 33, T. 156 N., R. 79 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 23, 13.83; Oct. 28, 11.79.

160. United States Forest Service. SE¼SW¼ sec. 31, T. 157 N., R. 75 W. (Described in Water-Supply Paper 908).

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	7.62	Mar. 21	7.61	Apr. 23	7.26	Dec. 11	6.46
21	7.62	28	7.56	Oct. 29	6.68	23	6.42
Mar. 3	7.59	Apr. 11	7.29	Dec. 2	6.46	30	6.50

161. Village of Towner. SE¼NW¼ sec. 11, T. 156 N., R. 76 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 23, 12.99; Oct. 28, 12.17.

162. Walter Arneson. SW¼SE¼ sec. 3, T. 158 N., R. 78 W. (Described in Water-Supply Paper 908). Water level, in feet below measuring point, 1941: Oct. 28, 28.76.

McIntosh County

93. Freida Forrest. SE¼SW¼ sec. 7, T. 130 N., R. 69 W. (Described in Water-Supply Paper 845, p. 357). Water levels to December not reliable because of changes in well platform causing unstable measuring point.

Water level, in feet above datum, 1941

Jan. 4	96.16	Apr. 5	94.05	July 5	98.63	Oct. 17	96.72
11	96.01	12	94.09	12	95.09	18	97.19
18	96.03	19	104.59	19	92.76	25	97.38
25	95.53	26	104.61	26	91.57	Nov. 1	97.59
Feb. 1	96.76	May 3	102.63	Aug. 2	91.55	8	97.72
8	97.49	10	101.16	9	91.63	15	97.69
15	96.47	17	95.58	16	91.91	22	97.89
22	96.48	24	93.49	23	91.67	29	97.91
Mar. 1	94.05	31	88.21	30	91.99	Dec. 6	97.72
8	93.52	June 7	92.69	Sept. 6	93.76	13	97.72
15	93.53	14	102.58	13	92.63	20	97.72
22	92.34	21	102.58	20	93.61	27	97.67
29	94.01	28	98.53				

94. Freida Forrest. SE¼SW¼ sec. 7, T. 130 N., R. 69 W. (Described in Water-Supply Paper 845, p. 358).

Water level, in feet above datum, 1941

Jan. 4	96.88	Apr. 5	96.86	July 5	93.09	Oct. 17	96.34
11	96.53	12	96.92	12	95.61	18	95.42
18	96.49	19	96.72	19	95.65	25	96.50
25	96.38	26	96.93	26	96.80	Nov. 1	95.05
Feb. 1	96.77	May 3	98.82	Aug. 2	96.78	8	95.64
8	96.90	10	97.53	9	94.80	15	95.65
15	96.99	17	93.74	16	93.45	22	94.55
22	96.91	24	90.68	23	91.45	29	91.75
Mar. 1	97.02	31	94.87	30	88.70	Dec. 6	91.20
8	96.85	June 1	88.74	Sept. 6	88.61	13	90.86
15	96.84	14	93.13	13	91.78	20	90.31
22	96.20	21	94.13	20	94.85	27	90.09
29	96.80	28	95.07				

McIntosh County--Continued

136. State of North Dakota. SE¼NW¼ sec. 36, T. 132 N., R. 71 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 11, 5.11; Oct. 17, 6.35.

137. Federal Land Bank. SE¼NE¼ sec. 24, T. 132 N., R. 71 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 11, 11.48; Oct. 17, 11.42.

138. C. Hiller. NE¼NE¼ sec. 32, T. 132 N., R. 70 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 11, 19.02; Oct. 11, a/20.59.

139. Dan Nigisch. NE¼SE¼ sec. 28, T. 132 N., R. 71 W. (Described in Water-Supply Paper 908) Water levels, in feet below measuring point, 1941: Apr. 11, 18.33; Oct. 17, 18.46.

140. Jacob Groshanz. NW¼NW¼ sec. 29, T. 131 N., R. 70 W. (Described in Water-Supply Paper 908). Well caved in, summer 1941. Water level, in feet below measuring point, 1941: Apr. 11, 26.79.

141. Town of Wishek. NE¼NE¼ sec. 15, T. 132 N., R. 71 W. (Described in Water-Supply Paper 908). Datum revised. Elevation of measuring point 121.54 feet above datum. All levels appearing in Water-Supply Paper 908 should be reduced by 0.95 foot. Previous datum was computed on basis of first measurement, which proved to be abnormally low, probably as an effect of local drawdown.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	99.33	Apr. 5	99.48	June 28	99.63	Oct. 18	99.60
11	99.15	12	99.51	July 5	99.65	25	99.57
18	99.15	19	99.48	12	99.71	Nov. 1	99.68
25	99.15	26	99.51	19	99.71	8	99.57
Feb. 1	99.15	May 3	99.52	26	99.54	15	99.58
7	99.24	10	99.48	Aug. 2	99.62	22	99.58
22	99.25	17	99.52	8	99.58	29	99.65
Mar. 1	99.25	24	99.53	23	99.60	Dec. 6	99.42
8	99.25	31	99.53	30	99.59	13	99.56
15	99.24	June 7	99.38	Sept. 13	99.62	20	99.58
22	99.33	14	99.54	20	99.66	27	99.57
29	99.46	21	99.55	27	99.60		

McKenzie County

81. Chas.E. Fleck. SW¼SW¼ sec. 12, T. 150 N., R. 100 W. (Described in Water-Supply Paper 845, p. 358).

Water level, in feet above datum, 1941

Jan. 4	99.95	Apr. 5	100.15	July 5	99.96	Oct. 4	99.86
11	100.06	12	99.84	12	99.97	11	99.84
18	100.20	19	99.89	19	100.01	18	99.82
25	100.09	26	99.97	26	99.92	25	100.26
Feb. 1	99.97	May 3	100.00	Aug. 2	99.89	Nov. 1	100.07
8	100.04	10	99.81	9	100.02	8	99.93
15	100.05	17	100.10	16	100.04	15	99.85
22	100.03	24	100.19	23	100.06	22	99.85
Mar. 1	100.14	31	99.99	30	99.93	29	99.76
8	100.21	June 7	99.93	Sept. 6	99.88	Dec. 6	99.98
15	100.21	14	99.95	13	99.96	13	99.90
22	99.91	21	99.78	20	99.91	20	100.00
29	100.24	28	100.00	27	99.76	27	99.85

119. Federal Land Bank. NE¼NW¼ sec. 8, T. 145 N., R. 98 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 17, 97.46; Oct. 23, 97.62.

a After 40 minutes recovery from pumping, level still rising.

McLean County

27. State of North Dakota. SW¼NW¼ sec. 15, T. 149 N., R. 84 W. Described in Water-Supply Paper 840, p. 523).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	99.85	Apr. 12	99.77	July 19	100.02	Oct. 11	100.14
18	99.82	19	99.75	26	100.02	18	100.12
25	99.81	26	99.73	Aug. 2	100.00	25	100.23
Feb. 1	99.75	May 3	99.94	9	100.02	Nov. 1	99.98
8	99.81	10	99.73	16	100.02	8	100.14
15	99.77	17	99.85	23	100.06	15	100.23
22	99.79	24	99.89	30	100.10	22	100.23
Mar. 1	99.81	31	99.89	Sept. 6	100.06	29	100.39
8	99.85	June 7	99.89	13	100.10	Dec. 6	100.29
15	99.85	July 1	99.89	20	100.10	13	100.23
22	99.73	5	100.02	27	100.06	19	100.29
29	99.81	12	99.94	Oct. 4	100.14	27	100.27
Apr. 5	99.81						

Mercer County

118. Maichel Bros. SE¼NE¼ sec. 22, T. 144 N., R. 85 W. (Described in Water-Supply Paper 908). Water level, in feet below measuring point, 1941: Apr. 13, 27.62; Oct. 18, 27.30.

Morton County

1. Fred Lehde. SW¼SW¼ sec. 15, T. 139 N., R. 85 W. Bored garden well, diameter 24 to 16 inches, depth 72.3 feet. Measuring point, north point of wood curbing, 0.4 feet above land surface, and 137.46 feet above datum. Bench mark no. 1, nail and washer in the northwest corner of barn 1.4 feet above land surface and 143.95 feet above datum, 130 feet east-northeast of well. Bench mark no. 2, nail and washer in the southwest side of light pole, 160 feet northeast of well, 1.2 feet above land surface, and 143.94 feet above datum. Water level, Apr. 14, 1941, 37.36 feet below measuring point. Observer, Herbert Lehde.

Water level, in feet above datum, 1941

Apr. 14	100.10	June 21	106.17	Aug. 30	105.65	Nov. 1	105.27
19	100.05	28	106.42	Sept. 6	105.58	8	105.19
26	99.89	July 5	106.42	13	105.50	15	105.17
May 3	100.02	12	106.08	20	105.63	22	105.09
10	99.97	19	106.15	29	105.67	Dec. 1	105.05
17	99.94	26	106.02	Oct. 4	105.58	6	105.01
24	99.79	Aug. 2	105.93	11	105.53	13	104.96
31	99.77	9	106.38	19	105.51	20	104.89
June 7	101.42	16	105.75	21	105.52	27	104.80
14	100.50	23	105.72	25	105.54		

2. Henry Polenberg. NW¼NE¼ sec. 32, T. 139 N., R. 88 W. Drilled domestic and stock well, diameter 6 inches, depth 59.5 feet. Measuring point, top of casing in pit, 6.2 feet below land surface. Water levels, in feet below measuring point, 1941: Apr. 14, 3.18; Oct. 21, 2.98.

3. Joe Lanz, Jr. SW¼SE¼ sec. 6, T. 161 N., R. 81 W. Bored domestic well, diameter 24 inches, depth 66.5 feet. Measuring point, top of wood curb, south side, 0.5 foot above land surface. Water levels, in feet below measuring point, 1941: Apr. 15, 25.73; Oct. 22, 25.13.

4. Albrecht and Johnson. NW¼SW¼ sec. 36, T. 134 N., R. 82 W. Bored domestic well, diameter 16 inches, depth 20.5 feet. Measuring point, top of curb, east side, 0.7 foot above land surface. Water levels, in feet below measuring point, 1941: Apr. 15, 18.04; Oct. 22, 17.57.

Morton County--Continued

49. U. S. Department of Agriculture, Soil Conservation Service. NW¼NW¼ sec. 4, T. 138 N., R. 81 W. (Described in Water-Supply Papers 840, p. 324, and 845, p. 359).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	97.61	Apr. 13	101.55	July 12	105.02	Sept. 29	102.88
18	97.50	19	101.96	19	105.02	Oct. 4	102.73
Feb. 1	97.44	27	102.38	27	104.86	12	102.56
8	97.33	May 4	102.65	Aug. 2	104.65	18	102.38
15	97.58	11	102.63	11	104.61	27	102.17
22	98.00	16	102.67	16	104.19	Nov. 1	102.11
Mar. 1	98.50	26	102.42	23	103.98	9	101.96
8	98.67	31	102.33	30	103.75	15	101.77
17	99.13	June 17	104.21	Sept. 6	103.46	22	101.61
22	99.58	28	105.42	13	103.34	30	101.44
30	100.54	July 7	104.96	22	102.96	Dec. 6	101.29
Apr. 5	101.02						

Mountrail County

90. Emil Molter. NE¼NE¼ sec. 6, T. 152 N., R. 89 W. (Described in Water-Supply Paper 845, p. 359).

Water level, in feet above datum, 1941

Jan. 4	99.67	Feb. 8	99.65	Mar. 15	99.62	July 13	99.70
11	99.67	15	99.65	22	99.61	Sept. 9	99.98
19	99.66	22	99.62	29	99.61	Oct. 26	100.11
25	99.66	Mar. 1	99.62	Apr. 5	99.60	Dec. 20	100.24
Feb. 1	99.65	8	99.63	May 24	99.59		

Nelson County

47. Tom Miller (formerly State of North Dakota.) (Described in Water-Supply Paper 886, p. 546). NE¼NE¼ sec. 5, T. 152 N., R. 59 W. Erroneously located in NW¼NW¼ sec. 4, in Water-Supply Papers 886 and 908. Water levels, in feet below measuring point, 1941: Apr. 4, 19.63; Oct. 30, 12.33.

Oliver County

1. Otis Tye. NE¼NW¼ sec. 10, T. 141 N., R. 82 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 13, 19.24; Oct. 21, 18.73.

Pembina County

1. E. J. Landers and Company. NW¼NW¼ sec.22, T. 161 N., R. 56 W. Dug domestic and stock well, diameter 60 inches, depth 14.1 feet. Measuring point, edge of small hole in shed floor, 0.5 foot above land surface, and 112.31 feet above datum. Bench mark iron nail in southeast side of tree trunk, 107 feet northwest of well, 5 feet above land surface and 115.81 feet above datum. Bench mark iron nail in southwest side of tree trunk, 130 feet north-northwest of well, 3.4 feet above land surface, and 112.88 feet above datum. Water level, Apr. 26, 1941, 12.26 feet below measuring point. Observer, Earl Veum.

Water level, in feet above datum, 1941

Apr. 26	100.05	May 31	100.93	July 5	101.39	Aug. 9	100.75
May 3	100.30	June 7	101.00	12	101.40	16	100.65
10	100.51	14	101.04	19	101.41	23	100.63
17	100.69	21	101.10	26	101.09	30	100.58
24	100.90	28	101.21	Aug. 2	100.96	Sept. 6	100.80

Pembina County--Continued

1. E. J. Landers and Company.--Continued.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept.13	101.07	Oct. 13	102.36	Nov. 8	103.03	Dec. 6	102.98
20	101.22	18	102.79	15	102.98	13	102.98
27	101.35	29	102.91	22	102.97	20	102.98
Oct. 4	102.07	Nov. 1	102.95	29	102.88	27	102.98

5. Garnett A. Snell. SW¼SW¼ sec. 31, T. 162 N., R. 53 W. Dug domestic and stock well, 48 inches square, depth 17.4 feet. Measuring point, edge of northeast curb support, a vertical 2 by 4-inch plank, 1.5 feet above land surface and 115.97 feet above datum. Water level, Sept. 12, 1941, 16.46 feet below measuring point. Observer, Garnett A. Snell.

Water level, in feet below measuring point, 1941

Sept.12	99.51	Oct. 11	101.26	Nov. 8	101.97	Dec. 6	103.38
13	100.12	18	101.74	15	102.14	13	103.61
Oct. 3	101.24	25	102.14	22	102.84	20	103.30
4	101.24	Nov. 1	101.86	29	103.55	27	103.47

41. George Harris. NW¼NW¼ sec. 27, T. 163 N., R. 51 W. (Described in Water-Supply Paper 840, p. 324.)

Water level, in feet above datum, 1941

Jan. 6	94.52	Apr. 9	(a)	July 12	99.65	Oct. 11	101.58
13	(a)	12	94.77	19	99.56	18	101.56
20	(a)	19	97.36	26	99.35	25	101.56
27	(a)	26	97.15	Aug. 2	99.04	Nov. 1	101.56
Feb. 4	(a)	May 3	97.85	9	98.83	8	101.56
8	(a)	10	95.73	16	98.72	15	101.65
15	(a)	17	97.29	23	98.50	22	101.65
22	(a)	24	95.31	29	98.35	29	101.61
Mar. 1	(a)	31	97.52	Sept. 6	98.47	Dec. 6	101.58
8	(a)	June 14	98.61	13	98.61	13	101.65
15	(a)	21	99.01	20	98.71	20	101.61
22	(a)	28	99.52	27	98.80	27	101.58
29	(a)	July 5	99.61	Oct. 6	101.11		

42. C. A. Thompson. SE¼SW¼ sec. 3, T. 163 N., R. 56 W. (Described in Water-Supply Paper 840, p. 324). Well caved in. Measurements discontinued. Pembina 72, a half mile west, set up for further measurement.

Water level, in feet above datum, 1941

Jan. 4	99.05	Feb. 15	99.05	Mar. 29	99.05	May 10	b 98.90
11	99.05	22	99.05	Apr. 5	99.05	17	b 98.90
18	99.05	Mar. 1	99.05	12	99.05	24	b 98.90
25	99.05	8	99.05	19	99.05	31	99.15
Feb. 1	99.05	15	99.05	26	b 98.90	Sept.26	102.89
8	99.05	22	99.05	May 3	b 98.90		

50. Albert C. McCurdy. SE¼SE¼ sec. 3, T. 162 N., R. 55 W. Unused dug well, diameter 54 inches, depth 17 feet. Measuring point, hole in recorder platform, 2.8 feet above land surface, and 112.04 feet above datum. Water level, Oct. 4, 1941, 11.38 feet below measuring point. Automatic recorder put on well Oct. 11, 1941. Observer, Albert C. McCurdy.

Water level, in feet above datum, 1941

Sept.18	99.74	Oct. 26	101.35	Nov. 22	101.39	Dec. 13	101.29
Oct. 4	100.66	Nov. 1	101.39	29	101.33	20	101.14
11	100.95	8	101.40	Dec. 6	101.22	27	100.87
18	101.22	15	101.42				

a Dry below 94.40.
b Measurements may be accurate only to nearest foot.

Pembina County--Continued

72. Herman Tesmer. NE¼NE¼ sec. 9, T. 163 N., R. 56 W. Unused dug and bored well, diameter 36 inches, depth 16.8 feet. Measuring point, bored hole in well platform, north side of pump, 0.9 foot above land surface and 110.33 feet above datum. Water level, Sept. 26, 1941, 10.33 feet below measuring point. Observer, Herman Tesmer.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 26	100.00	Oct. 25	101.62	Nov. 22	101.41	Dec. 13	101.21
Oct. 4	100.66	Nov. 1	101.62	29	101.33	20	101.06
11	101.41	8	101.58	Dec. 6	101.29	27	100.87
18	101.50	15	101.62				

Pierce County

1. Eric Harmmel. NE¼NW¼ sec. 10, T. 156 N., R. 72 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 23, 26.08; Oct. 29, 26.73.

Ramsey County

48. Mrs. Bonnie Boland. SW¼NE¼ sec. 14, T. 153 N., R. 65 W. (Described in Water-Supply Paper 840, p. 324).

Water level, in feet above datum, 1941

Jan. 4	99.05	Feb. 1	99.05	Mar. 1	99.05	Mar. 29	99.08
11	99.05	8	99.05	8	99.05	Apr. 5	99.23
18	99.05	15	99.05	15	99.12	July 26	99.30
25	99.05	22	99.05	22	99.16	Oct. 30	99.51

Ransom County

1. Melfird Skramstad. NW¼NE¼ sec. 3, T. 136 N., R. 56 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 7, 26.67; Oct. 15, 24.02.

Renville County

26. Minnesota Trust Company. NE¼NE¼ sec. 20, T. 161 N., R. 85 W. (Described in Water-Supply Paper 840, p. 324).

Water level, in feet above datum, 1941

Jan. 4	90.11	Apr. 12	90.16	July 5	90.27	Oct. 5	90.28
11	90.02	19	90.26	12	90.28	11	90.30
18	90.03	21	90.21	19	90.20	18	90.23
25	90.01	26	90.20	26	90.17	25	90.22
Feb. 1	90.04	May 3	90.27	Aug. 2	90.08	Nov. 1	90.24
8	90.02	10	90.22	9	90.01	8	90.24
15	90.08	17	90.27	16	90.00	15	90.25
22	90.08	24	90.20	23	90.01	22	90.30
Mar. 1	90.04	31	90.28	30	90.07	29	90.32
8	90.08	June 7	90.35	Sept. 6	90.20	Dec. 6	90.30
15	90.00	14	90.35	13	90.24	13	90.27
22	90.03	21	90.41	20	90.30	20	90.31
29	90.07	28	90.37	27	90.35	27	90.30
Apr. 5	90.11						

Renville County--Continued

75. Fish and Wildlife Service, U. S. Department of the Interior. NW¼NW¼ sec. 31, T. 158 N., R. 84 W. (Described in Water-Supply Paper 840, p. 325).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	(a)	Apr. 19	b102.79	May 17	103.52	June 28	105.85
Mar. 22	(a)	22	b102.88	24	103.80	Aug. 16	104.67
29	b102.58	26	b102.85	31	104.12	23	104.48
Apr. 5	b102.58	May 3	b102.85	June 14	105.31	Sept.13	105.08
12	b102.75	10	b103.29	21	105.76	Dec. 6	105.96

167. Town of Mohall. SE¼SW¼ sec. 13, T. 161 N., R. 84 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 21, 24.11; Oct. 27, 24.15.

168. J. Dighton Taylor. NW¼NE¼ sec. 24, T. 161 N., R. 84 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 21, 11.38; Oct. 27, 10.86.

169. Fred Paris. SE¼SW¼ sec. 13, T. 161 N., R. 84 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 21, 12.22; Oct. 27, 7.08.

Richland County

2. Ira Madden. NE¼SE¼ sec. 12, T. 132 N., R. 49 W. (Described in Water-Supply Paper 845, p. 361).

Water level, in feet above datum, 1941

Jan. 4	100.69	Feb. 3	100.67	Mar. 1	100.64	Mar. 29	100.63
11	100.69	8	100.67	8	100.64	Apr. 5	100.63
18	100.69	15	100.64	15	100.64	July 5	100.77
25	100.69	24	100.64	22	100.63	Oct. 19	100.85

5. John Liljemark. SW¼SE¼ sec. 33, T. 133 N., R. 52 W. (Described in Water-Supply Paper 840, p. 325). Erroneously located in sec. 23 in Water-Supply Papers 886 and 908.

Water level, in feet above datum, 1941

Jan. 5	100.38	Apr. 5	100.89	July 5	104.21	Oct. 4	103.99
11	100.19	12	101.48	12	103.04	11	103.53
18	100.12	19	103.04	19	102.67	18	103.27
25	99.83	26	103.21	26	101.70	25	103.67
Feb. 1	99.67	May 3	103.33	Aug. 2	101.06	Nov. 1	103.67
8	99.52	10	102.58	9	100.84	8	103.69
15	99.48	17	102.29	16	101.67	15	103.83
23	99.36	24	101.75	23	101.21	22	103.50
Mar. 1	99.28	31	102.17	30	101.45	29	103.38
8	99.20	June 7	104.68	Sept. 7	101.79	Dec. 6	103.41
17	99.44	15	105.76	14	102.51	14	102.94
22	99.70	21	105.38	20	102.58	20	102.81
29	100.52	28	103.53	27	103.27	27	102.31

Rolette County

164. Owner's number 3. Town of Rolla. NE¼ sec. 17, T. 162 N., R. 69 W. (Described in Water-Supply Paper 908). Measuring point, 107.82 feet above datum.

Water level, in feet above datum, 1940-41

Date	Water level	Date	Water level	Date	Water level
July 17, 1940	99.51	May 5, 1941	99.60	May 31, 1941	99.60
Nov. 8	99.27	10	99.60	June 9	99.57
Apr. 24, 1941	99.60	19	99.61	16	99.60
26	99.60	26	99.60	21	99.60

a Well frozen and drifted with snow between dates shown
b To ice.

Rolette County--Continued

165. Owner's number 4. Town of Rolla. NE¼ sec. 17, T. 162 N., R. 69 W. (Described in Water-Supply Paper 908). Measuring point, 121.19 feet above datum. Water level, Nov. 18, 1941, 20.51 feet below measuring point (datum established for this date because previous measurements were affected by local drawdown). Observer, Lucien N. Gauthier.

Water level, in feet above datum, 1940-41

Date	Water level	Date	Water level	Date	Water level
July 17, 1940	a 86.59	Apr. 26, 1941	90.59	Dec. 1, 1941	100.92
Nov. 8	a 85.63	Nov. 18	100.68	22	101.35
Apr. 24, 1941	b 90.38	24	100.89		

Sargent County

1. Nick Klinkheimer. SW¼SW¼ sec. 25, T. 131 N., R. 58 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 7, 28.98; Oct. 15, 28.58.

2. Nick Klinkheimer. SW¼SW¼ sec. 25, T. 131 N., R. 58 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 7, 29.89; Oct. 15, 29.69.

116. Reko Realty. NE¼NW¼ sec. 19, T. 130 N., R. 58 W. (Described in Water-Supply Paper 908). New measuring point, top of pipe, 2.2 feet above land surface, and 0.9 foot below old measuring point. Water levels, in feet below new measuring point, 1941: May 8, 8.62; June 20, 7.93; July 25, 9.40; Oct. 15, 9.52.

Sheridan County

95. Bank of North Dakota. NW¼NW¼ sec. 28, T. 145 N., R. 75 W. (Described in Water-Supply Paper 845, p. 362).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	99.31	Mar. 29	99.35	June 21	100.15	Oct. 18	100.11
11	99.32	Apr. 5	99.35	29	100.23	25	100.17
18	99.32	12	99.41	July 5	100.29	Nov. 1	100.21
25	99.33	19	99.53	12	100.31	8	100.23
Feb. 1	99.32	26	99.61	19	100.27	15	100.23
8	99.32	May 3	99.66	26	100.22	22	100.33
15	99.33	10	99.68	Aug. 2	100.19	29	100.31
22	99.33	17	99.97	9	100.19	Dec. 6	100.21
Mar. 1	99.33	25	100.00	15	100.18	13	100.30
8	99.32	31	100.02	30	100.17	20	100.29
15	99.33	June 7	100.14	Sept. 6	100.18	27	100.26
22	99.34	14	100.15	13	100.17		

Sioux County

1. Mrs. Looking-out. SW¼ sec. 7, T. 130 N., R. 79 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 16, 13.67; Oct. 22, 12.76.

2. Mrs. Mulache. NE¼SE¼ sec. 23, T. 130 N., R. 80 W. Bored domestic and stock well, diameter 20 inches, depth 26.8 feet. Measuring point, top of concrete curb, chiseled line, north point, 0.3 foot above land surface. Water levels, in feet below measuring point: Nov. 17, 1940, 25.21; Apr. 16, 1941, 25.29; Oct. 22, 1941, 25.43.

a Pumping. b After 12 hours recovery.

Slope County

1. Arthur Nesseth. SE¼NE¼ sec. 14, T. 134 N., R. 100 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 17, 18.91; Oct. 23, 18.23.

Stark County

120. Roland and Geo. Funk. NE¼NW¼ sec. 2, T. 139 N., R. 91 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 13, 6.06; Oct. 21, 5.11.

Steele County

1. Mrs. Snortland. NE¼NE¼ sec. 15, T. 148 N., R. 57 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 5, 23.20; Oct. 14, 27.50.

Stutsman County

124. Union Central Life Insurance Company. SW¼SW¼ sec. 33, T. 137 N., R. 64 W. (Described in Water-Supply Paper 908). Erroneously listed in T. 7 N. in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 8, 53.80; Oct. 6, 53.75.

Towner County

59. Bank of North Dakota. NE¼NW¼ sec. 28, T. 160 N., R. 66 W. (Described in Water-Supply Paper 840, p. 325).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	100.80	Apr. 5	101.42	July 5	101.80	Oct. 4	102.05
11	100.83	12	101.55	12	101.72	11	102.08
18	100.82	19	101.59	19	101.71	18	102.12
25	100.81	26	101.64	26	101.68	24	102.13
Feb. 2	100.81	May 3	101.68	Aug. 2	101.63	Nov. 1	102.19
8	100.92	10	101.73	9	101.63	8	102.22
15	101.02	17	101.76	16	101.63	15	102.25
22	101.13	24	101.79	23	101.63	22	102.31
Mar. 1	101.17	31	101.79	30	101.64	29	102.29
8	101.18	June 7	101.84	Sept. 6	101.84	Dec. 6	102.30
15	101.22	14	101.88	13	101.88	13	102.38
22	101.26	21	101.85	20	101.91	20	102.37
29	101.30	28	101.82	27	101.98	27	102.37

Traill County

15. A. C. Skyberg. SE¼SW¼ sec. 24, T. 146 N., R. 51 W. (Described in Water-Supply Paper 840, p. 326).

Water level, in feet above datum, 1941

Jan. 4	99.64	Apr. 5	99.70	July 5	100.47	Oct. 4	101.45
11	99.63	12	99.69	12	100.66	11	101.52
18	99.63	19	99.69	19	100.68	18	101.58
25	99.62	26	99.72	26	100.68	25	101.62
Feb. 1	99.61	May 3	99.75	Aug. 2	100.89	Nov. 1	101.68
8	99.61	10	99.79	9	101.02	8	101.72
15	99.58	17	99.83	16	101.10	15	101.79
22	99.56	24	99.87	23	101.14	22	101.81
Mar. 1	99.54	31	99.91	30	101.18	29	101.83
8	99.52	June 7	99.95	Sept. 6	101.25	Dec. 6	101.85
15	99.49	14	100.08	13	101.29	13	101.89
22	99.49	21	100.22	20	101.33	20	101.91
29	99.49	28	100.37	27	101.39	27	101.93

Traill County--Continued

31. City of Hatton. SW¼NE¼ sec. 18, T. 148 N., R. 53 W. (Described in Water-Supply Paper 845, p. 364).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 6	97.88	June 7	102.65	Aug. 2	106.59	Sept. 28	108.91
19	100.60	14	106.34	9	106.25	Oct. 5	109.64
26	100.49	21	106.46	16	106.47	11	110.08
May 3	99.88	28	106.60	23	106.60	18	110.29
10	99.95	July 5	107.17	30	106.77	25	110.54
18	100.93	12	107.49	Sept. 8	107.97	Nov. 1	110.83
25	100.77	20	105.62	13	107.89	8	110.87
31	101.73	26	105.82	20	108.08	16	111.12

32. City of Hatton. SE¼NE¼ sec. 18, T. 148 N., R. 53 W. (Described in Water-Supply Paper 845, p. 364).

Water level, in feet above datum, 1941

Apr. 6	95.56	June 7	103.54	Aug. 2	106.20	Sept. 28	107.93
19	99.08	14	105.52	10	105.63	Oct. 5	108.47
26	100.69	21	106.21	16	105.80	11	108.92
May 3	101.23	28	106.50	25	105.65	18	109.11
10	101.49	July 5	107.13	30	106.65	25	109.36
18	102.07	12	107.39	Sept. 8	106.65	Nov. 1	109.68
25	102.11	20	107.29	13	107.11	8	109.57
31	102.93	26	106.70	20	107.33	16	109.84

33. City of Hatton. NE¼NE¼ sec. 18, T. 148 N., R. 53 W. (Described in Water-Supply Paper 840, p. 326).

Water level, in feet above datum, 1941

Apr. 6	99.53	June 14	101.56	Aug. 16	105.00	Oct. 18	108.31
19	102.05	21	101.84	23	103.99	25	109.12
26	100.18	28	102.11	30	104.12	Nov. 1	109.92
May 3	109.14	July 5	102.84	Sept. 8	105.09	8	110.37
10	100.26	12	102.28	13	105.55	16	110.96
18	100.41	20	103.68	20	105.36	22	111.23
25	100.51	26	103.44	28	106.27	29	111.57
31	100.87	Aug. 2	103.57	Oct. 5	107.04	Dec. 6	111.87
June 7	100.96	10	103.29	11	107.68	13	111.86

34. City of Hatton. NW¼NE¼ sec. 18, T. 148 N., R. 53 W. (Described in Water-Supply Paper 845, p. 365).

Water level, in feet above datum, 1941

Apr. 6	97.96	June 7	103.84	Aug. 2	107.14	Sept. 28	106.80
19	101.70	14	105.93	10	105.42	Oct. 5	107.31
26	101.71	21	106.74	16	105.54	11	107.71
May 3	102.07	28	107.00	23	104.85	18	107.95
10	102.17	July 5	107.46	30	105.49	25	108.30
18	102.81	12	107.54	Sept. 8	105.96	Nov. 1	108.64
25	102.90	20	107.37	13	105.99	8	108.84
31	103.29	26	106.79	20	106.11	16	109.10

Walsh County

38. Henry Dipple. SW¼SE¼ sec. 16, T. 157 N., R. 51 W. (Described in Water-Supply Papers 840, p. 326, and 845, p. 366).

Water level, in feet above datum, 1941

Jan. 4	99.74	Feb. 8	99.49	Mar. 15	99.65	Apr. 19	99.47
11	99.80	15	99.48	22	99.56	26	99.39
18	99.44	22	99.47	29	99.68	May 3	99.40
25	99.50	Mar. 1	99.46	Apr. 5	99.66	10	101.00
Feb. 1	99.46	8	99.64	12	99.48	17	101.03

Walsh County--Continued.

38. Henry Dipple.--Continued.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 24	100.94	July 19	100.00	Sept. 13	100.36	Nov. 8	100.37
31	100.91	26	100.32	20	100.38	15	100.36
June 7	100.98	Aug. 2	100.20	27	100.66	22	100.36
14	101.00	9	100.04	Oct. 4	100.40	29	100.37
21	100.75	16	99.94	11	100.49	Dec. 6	100.49
28	100.74	23	99.99	18	100.51	13	100.48
July 5	100.21	30	100.40	25	100.44	20	100.46
12	100.15	Sept. 6	100.25	Nov. 1	100.37	27	99.91

39. Henry Dipple. SW¼SE¼ sec. 16, T. 157 N., R. 51 W. (Described in Water-Supply Paper 840, p. 327).

Water level, in feet above datum, 1941

Jan. 4	98.31	Apr. 5	101.12	July 5	104.40	Oct. 4	106.07
11	99.32	12	a107.4	12	104.29	11	106.42
18	99.34	19	a107.4	17	104.49	18	106.40
25	99.31	26	104.67	26	102.84	25	105.26
Feb. 1	99.38	May 3	104.55	Aug. 2	102.11	Nov. 1	105.94
8	99.34	10	104.01	9	101.55	8	105.99
15	99.38	17	103.82	16	101.01	15	106.08
22	99.32	24	103.77	23	101.04	22	106.02
Mar. 1	99.38	31	104.56	30	101.03	29	106.26
8	97.18	June 7	104.57	Sept. 6	105.99	Dec. 6	105.00
15	97.75	14	106.17	13	103.98	13	105.24
22	98.24	21	106.84	20	104.67	20	105.40
29	99.13	28	105.75	27	105.00	27	103.46

40. Henry Dipple. SW¼SE¼ sec. 16, T. 157 N., R. 51 W. (Described in Water-Supply Paper 840, p. 327).

Water level, in feet above datum, 1941

Jan. 4	b 99.2	Apr. 5	c106.6	July 5	103.95	Oct. 4	106.54
11	b 99.2	12	c106.6	12	104.30	11	107.34
18	b 99.2	19	c106.6	19	103.95	18	107.34
25	b 99.2	26	104.85	26	103.62	25	106.42
Feb. 1	b 99.2	May 3	103.38	Aug. 2	101.42	Nov. 1	106.43
8	b 99.2	10	103.34	9	100.94	8	105.55
15	b 99.2	17	102.84	16	100.84	15	105.53
22	b 99.2	24	102.70	23	99.67	22	b103.67
Mar. 1	b 99.2	31	102.07	30	100.00	29	b103.67
8	b 99.2	June 7	103.59	Sept. 6	106.42	Dec. 6	b104.09
15	b 99.2	14	104.58	13	106.25	13	b104.09
22	b 99.2	21	104.43	20	107.63	20	b104.09
29	c106.6	28	104.42	27	107.58	27	b103.84

96. C. D. Lewis. SW¼SW¼ sec. 17, T. 157 N., R. 55 W. (Described in Water-Supply Paper 886, p. 551).

Water level, in feet above datum, 1941

Jan. 4	98.99	Apr. 8	99.87	July 5	102.06	Oct. 11	101.85
11	99.01	12	100.69	12	101.86	18	102.10
18	99.03	20	101.34	19	101.66	26	102.26
25	99.05	26	101.54	26	101.41	Nov. 1	102.28
Feb. 1	99.07	May 3	101.73	Aug. 2	101.11	8	102.32
8	99.09	10	101.82	9	100.91	15	102.37
15	99.11	17	101.88	16	100.73	21	102.41
22	99.13	24	101.71	23	100.51	29	102.41
Mar. 1	99.14	31	101.80	30	100.37	Dec. 6	102.39
8	99.17	June 7	101.79	Sept. 6	100.29	13	102.35
15	99.19	14	102.30	13	100.34	20	102.31
22	99.21	21	102.49	20	100.44	27	102.26
29	99.23	28	102.22	Oct. 4	101.46		

a Filled with water.
b Top of ice.
c Filled with snow-melt water.

Ward County

25. Rural Rehabilitation Corporation. NE¼NE¼ sec. 2, T. 155 N., R. 84 W. (Described in Water-Supply Paper 886, p. 552).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	100.73	Apr. 12	101.96	July 7	101.35	Oct. 5	101.27
11	100.73	19	102.06	13	101.14	12	101.29
18	100.73	22	101.97	20	100.98	19	101.29
25	100.73	27	101.71	28	100.85	26	101.23
Feb. 1	100.73	May 4	101.52	Aug. 3	100.64	Nov. 2	101.23
8	100.73	11	101.27	10	100.56	9	101.23
15	100.73	18	101.10	17	100.64	16	101.27
22	100.73	25	101.08	24	100.60	22	101.23
Mar. 1	100.73	June 1	101.06	31	100.56	30	101.23
8	101.06	8	100.96	Sept. 7	100.56	Dec. 7	101.23
15	101.27	15	101.25	14	101.23	14	101.23
22	101.27	22	101.31	21	101.23	21	101.23
29	101.60	30	101.35	28	101.23	28	101.23
Apr. 5	101.73						

53. Chas. O'Neill. SW¼SE¼ sec. 30, T. 160 N., R. 88 W. (Described in Water-Supply Paper 886, p. 552).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	98.83	Apr. 5	102.41	July 5	102.85	Oct. 4	100.74
11	98.41	12	102.68	12	103.51	11	100.83
18	97.51	19	101.75	19	103.49	18	100.76
25	96.33	26	101.51	26	101.83	25	100.91
Feb. 1	97.83	May 3	101.99	Aug. 2	101.41	Nov. 1	100.83
8	97.84	10	101.87	9	100.87	8	100.85
15	96.97	17	100.85	16	100.68	15	100.75
22	95.50	24	100.67	23	99.49	22	99.35
Mar. 1	96.60	31	100.68	30	99.49	29	99.33
8	95.59	June 7	101.50	Sept. 6	99.51	Dec. 6	100.35
15	94.35	14	101.74	13	101.91	13	100.33
22	95.74	21	103.41	20	100.84	20	100.66
29	96.50	28	103.74	27	100.60	27	100.54

71. Fish and Wildlife Service, U. S. Department of the Interior. SE¼SW¼ sec. 5, T. 157 N., R. 84 W. (Described in Water-Supply Paper 840, p. 327).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	99.92	Mar. 22	99.79	May 3	100.21	June 21	100.46
11	99.89	29	99.89	10	100.22	28	100.54
18	99.87	Apr. 5	99.92	17	100.27	Aug. 16	101.42
25	99.87	12	99.86	24	100.31	23	101.37
Mar. 1	99.77	19	100.08	31	100.31	Sept.13	101.46
8	99.79	22	100.09	June 14	100.33	Dec. 6	102.52
15	99.83	26	100.11				

73. Fish and Wildlife Service, U. S. Department of the Interior. SE¼SE¼ sec. 21, T.157 N., R. 84 W. (Described in Water-Supply Paper 840, p. 327).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	101.71	Apr. 19	102.22	May 17	102.32	June 28	102.11
11	100.93	22	102.06	24	102.08	Aug. 16	101.27
Mar. 29	102.55	26	102.22	31	102.01	23	101.13
Apr. 5	102.57	May 3	102.40	June 14	102.33	Sept.13	100.58
12	102.39	10	102.26	21	102.47	Dec. 6	a 96.50

a Unit 96 (a reservoir with water level maintained by dam on Souris River) drained.

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Ward County--Continued

74. Fish and Wildlife Service, U. S. Department of the Interior. NE¼SW¼ sec. 21, T. 157 N., R. 84 W. (Described in Water-Supply Paper 840, p. 328).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	101.85	Mar. 22	101.08	May 3	102.90	June 21	102.88
11	101.87	29	101.35	10	102.83	28	102.64
18	101.89	Apr. 5	102.44	17	102.90	Aug. 16	101.15
25	101.92	12	102.56	24	102.70	23	101.02
Mar. 1	101.96	19	102.73	31	102.56	Sept.13	101.27
8	101.98	22	102.77	June 14	102.87	Dec. 6	101.50
15	101.10	26	102.81				

114. Fish and Wildlife Service, U. S. Department of the Interior. SW¼NE¼ sec. 32, T. 160 N., R. 88 W. (Described in Water-Supply Paper 908). Water levels, in feet below measuring point, 1941: Apr. 21, 8.41; Oct. 26, 7.42.

Wells County

23. City of Harvey. SE¼SW¼ sec. 20, T. 150 N., R. 72 W. (Described in Water-Supply Papers 840, p. 328, and 886, p. 554).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	99.07	Apr. 6	101.30	July 6	105.28	Oct. 5	104.89
10	98.78	13	102.89	13	105.39	12	105.45
19	98.53	20	104.20	20	104.99	19	105.53
26	98.36	27	105.05	27	104.41	26	105.64
Feb. 2	98.00	May 4	105.55	Aug. 3	104.33	Nov. 2	105.74
9	97.82	11	105.64	10	104.24	9	105.80
16	97.57	18	105.64	17	104.10	16	105.76
23	97.30	25	106.01	24	103.80	23	105.74
Mar. 2	97.07	June 1	105.99	31	103.89	30	105.72
9	96.78	8	106.45	Sept. 7	104.05	Dec. 7	105.72
16	97.18	15	105.99	14	104.10	14	105.70
23	98.30	22	106.07	21	103.95	21	105.55
30	99.33	29	105.83	28	104.72	28	105.39

24. City of Harvey. NE¼NW¼ sec. 28, T. 150 N., R. 72 W. (Described in Water-Supply Papers 840, p. 328, and 886, p. 554).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	100.48	Apr. 6	102.60	July 6	106.56	Oct. 5	106.21
10	100.19	13	104.23	13	106.65	12	106.83
19	99.83	20	105.56	20	106.27	19	106.89
25	99.63	27	106.39	27	105.71	26	106.96
Feb. 2	99.31	May 4	106.89	Aug. 3	105.52	Nov. 2	107.04
9	99.07	11	107.29	10	105.54	9	107.10
16	98.85	18	107.44	17	105.39	16	107.06
23	98.60	25	107.42	24	105.10	23	107.02
Mar. 2	98.29	June 1	107.35	31	105.23	30	107.06
9	97.98	8	107.79	Sept. 7	105.39	Dec. 7	107.08
16	98.29	15	107.27	14	105.39	14	107.04
23	99.45	22	107.39	21	105.29	21	106.89
30	100.52	29	107.10	28	106.06	28	106.73

153. Hayden Jones. NE¼NE¼ sec. 23, T. 147 N., R. 70 W. (Described in Water-Supply Paper 908). Water level, in feet below measuring point, 1941: Oct. 18, 5.95.

Williams County

77. Hans O. Lottestad. NE¼SE¼ sec. 24, T. 159 N., R. 103 W. (Described in Water-Supply Paper 886, p. 554). Observer, Henry Hoff, Grenora. Well not used after March.

Water level, in feet below datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	82.88	Apr. 20	98.01	July 19	94.70	Oct. 11	92.66
11	83.28	26	98.55	26	94.46	19	92.56
18	82.63	May 3	98.98	Aug. 2	94.09	25	92.46
25	82.55	10	99.50	9	93.79	Nov. 1	92.39
Feb. 1	82.92	17	98.59	17	93.71	8	92.34
8	82.55	24	98.12	23	93.49	15	92.31
15	82.59	31	97.72	30	93.35	22	92.28
22	82.30	June 7	97.23	Sept. 6	93.24	29	92.24
Mar. 1	82.47	14	96.70	13	93.20	Dec. 6	92.22
8	82.82	21	96.24	20	93.01	13	92.14
15	82.23	28	95.87	27	92.84	20	92.12
22	82.68	July 5	95.40	Oct. 4	92.90	27	92.08
29	88.38	12	94.96				

78. Hans O. Lottestad. NE¼SE¼ sec. 24, T. 159 N., R. 103 W. (Describes in Water-Supply Paper 845, p. 368). Not used after March.

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	72.56	Apr. 20	90.62	July 19	88.92	Oct. 11	86.89
11	75.30	26	91.14	26	88.74	19	86.71
18	75.53	May 3	92.61	Aug. 2	88.54	25	86.63
25	75.17	10	92.34	9	88.28	Nov. 1	86.59
Feb. 1	76.36	17	92.31	17	88.02	8	86.35
8	77.55	24	91.84	23	87.91	15	86.39
15	77.88	31	91.47	30	87.74	22	86.27
22	77.69	June 7	90.94	Sept. 6	87.62	29	86.16
Mar. 1	78.00	14	90.47	13	87.54	Dec. 6	86.12
8	79.29	21	90.13	20	87.34	13	85.95
15	77.62	28	89.90	27	87.09	20	85.98
22	77.98	July 5	89.48	Oct. 4	87.09	27	85.79
29	79.83	12	89.13				

79. Mrs. Gus B. Swanson Estate. SW¼SW¼ sec. 29, T. 157 N., R. 96 W. (Described in Water-Supply Paper 845, p. 369).

Water level, in feet above datum, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	73.51	Apr. 5	73.53	July 6	84.26	Oct. 5	78.43
11	76.64	12	70.55	12	93.64	11	85.32
18	77.43	19	70.36	19	92.95	18	78.03
25	75.80	26	72.91	26	85.16	25	76.76
Feb. 1	71.80	May 3	70.43	Aug. 2	77.24	Nov. 1	78.91
8	73.86	11	72.18	9	71.30	8	77.47
15	73.80	17	73.76	16	77.22	15	78.70
22	73.84	24	75.70	23	75.43	22	85.36
Mar. 1	73.45	June 1	81.51	31	80.57	29	88.51
8	74.55	7	86.28	Sept. 7	81.55	Dec. 6	88.74
15	72.14	14	87.26	14	81.82	13	87.24
22	70.53	21	87.16	20	80.49	20	74.97
29	73.39	28	85.89	27	86.32	29	80.03

SOUTH DAKOTA

By T. W. Robinson

SOUTHEASTERN SOUTH DAKOTA

The observation-well program, begun in 1939 in southeastern South Dakota, was continued in 1941 in cooperation with the South Dakota Geological Survey. Measurements of water levels were made monthly in 34 wells and either twice or three times a year in 10 wells. Measurements were discontinued on one well, and one new observation well was added during the year. Two measurements each were made on 5 wells, namely, Nos. 11, 12, 13, 14, and 15, in which no measurements of water level were made in 1940. About 375 individual measurements were made in 1941.

A comparison of the average water levels in a group of 22 wells shows that in 1941 there was a net rise in 7 wells, a net decline in 14 wells and almost no net change in one well. The average change in these wells was, however, a net rise of 0.23 foot. In comparing the water levels in December 1941 with those in December 1939, it is found that there was a net rise in 9 wells, a net decline in 12 wells, and no significant change in 1 well, the average being, however, a net rise of 0.62 foot.

The accompanying figure shows the water-level fluctuations in five water-table wells since December 1939, when the cooperative observation-well program was begun. The topographic situations of the wells is quite different. Well 1 is about 4 miles from the Missouri River on its old flood plain. Wells 5 and 24 are both on the upland, but locally differing in topography. Well 5 is on a rolling upland plain, whereas well 24 is in hilly terrain. The low water level of well 24 in April 1941 may be the result of pumping shortly before the measurement was made. Well 31 is in alluvium about one mile from the Big Sioux River and is probably affected by the stage of the river. Well 42 is on a glacial outwash plain. Wells 1 and 5 are unused, whereas the other three wells are used occasionally.

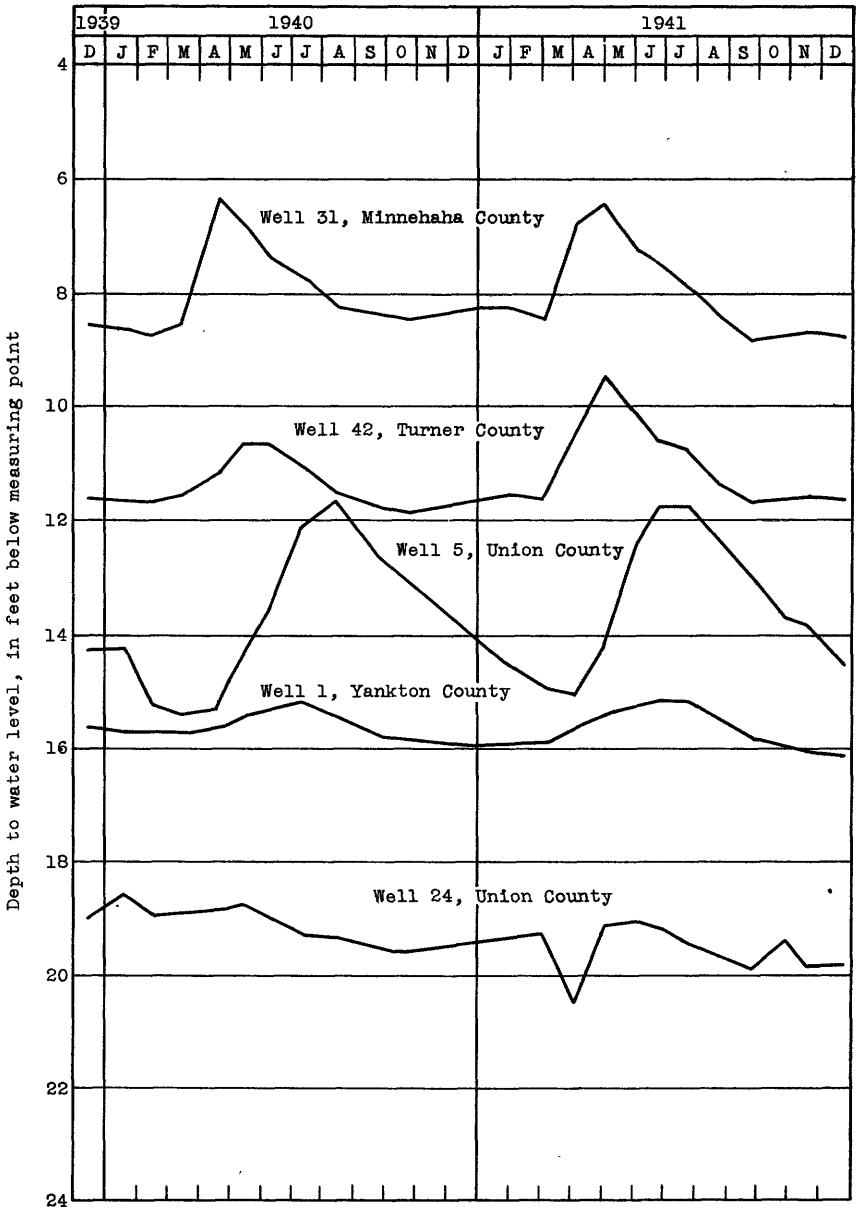

Figure 5.--Graphs showing fluctuations of water level in typical wells in southeastern South Dakota.

The precipitation in southeastern South Dakota was below normal during January and February 1941 and nearly normal during March. During April, June, and October the precipitation was above normal, but during May, July, and August it was below normal. During the remainder of the year the precipitation was only slightly above or below normal.

On the following pages the observation wells are listed alphabetically by counties, and numerically within each county. The numbers correspond to those given in Water-Supply Papers 886 and 908. The descriptions of most of the wells and their measuring points are given in Water-Supply Paper 886 and are not repeated in this paper. All the records of water level are expressed in feet below the measuring point. Measurements of water level were made by the Federal Geological Survey in June, July, and August. During the remainder of the year the measurements were made by the State Geological Survey.

Beadle County

11. Water levels, in feet below measuring point, 1941: Apr. 5, 29.33; June 6, 28.44.

12. Water levels, in feet below measuring point, 1941: Apr. 5, 33.70; June 6, 30.0.

13. Mrs. Hildur Erickson. Water levels, in feet below measuring point, 1941: Apr. 5, 27.18; June 6, 26.36.

14. Mrs. Ella Johnson. Water levels, in feet below measuring point, 1941: Apr. 5, 30.97; June 6, 35.1.

15. Nels Christensen. Water levels, in feet below measuring point, 1941: Apr. 5, 24.26; June 6, 24.42.

16. P. J. Murphy. SE¼SE¼ sec. 31, T. 111 N., R. 59 W. Dug or bored domestic and stock well, diameter 24 inches. Measuring point, inner edge of tile casing at north side. Water levels, in feet below measuring point: Aug. 18, 1940, 17.48; Apr. 5, 1941, 18.07.

Bon Homme County

7. T. V. Dugovic.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	25.12	May 6	24.85	Sept.25	20.11	Nov. 20	20.21
Mar. 9	25.18	July 24	22.99	Oct. 29	20.3	Dec. 18	20.38
Apr. 10	25.10	Aug. 22	20.80				

8. Jake Berndt.

Water level, in feet below measuring point, 1941

Jan. 29	10.22	May 6	7.78	Aug. 22	10.23	Nov. 20	11.90
Mar. 9	10.37	June 27	8.65	Sept.25	11.30	Dec. 18	12.16
Apr. 10	10.55	July 24	9.09	Oct. 29	11.59		

Bon Homme County--Continued.

9.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	(a)	May 6	5.13	Aug. 22	(a)	Nov. 20	(a)
Mar. 9	(a)	June 27	9.00	Sept.25	(a)	Dec. 18	(a)
Apr. 10	7.30	July 24	10.49	Oct. 29	11.20		

34. Joseph Krejci.

Water level, in feet below measuring point, 1941

Jan. 29	13.02	May 6	8.02	Aug. 22	12.17	Nov. 20	14.08
Mar. 9	12.57	June 27	9.70	Sept.25	14.51	Dec. 18	14.55
Apr. 10	11.39	July 24	12.14	Oct. 29	14.59		

Brookings County

18a. Beginning Apr. 5, 1941, measuring point is top of stove casing, 1.85 feet below previous measuring point. Water levels, in feet below measuring point, 1941: Apr. 5, b/5.92; June 3, 4.46; Nov. 18, 4.87.

38. Ed Yusten.

Water level, in feet below measuring point, 1941

Jan. 29	8.24	May 2	4.80	Aug. 21	7.06	Nov. 19	7.24
Mar. 4	7.49	June 26	6.20	Sept.24	7.81	Dec. 18	7.65
Apr. 10	5.82	July 23	5.76	Oct. 29	7.45		

43. University of South Dakota.

Water level, in feet below measuring point, 1941

Jan. 29	11.53	June 27	10.20	Sept.25	11.61	Nov. 20	10.45
May 6	9.09	July 23	10.88	Oct. 29	9.04	Dec. 22	11.36
June 6	10.1	Aug. 21	12.37				

47. United States Geological Survey.

Water level, in feet below measuring point, 1941

Jan. 28	9.35	May 2	7.78	Aug. 21	8.23	Nov. 19	8.84
Mar. 4	9.19	June 26	7.80	Sept.24	8.61	Dec. 18	8.90
Apr. 10	8.30	July 23	7.74	Oct. 29	8.24		

48. United States Geological Survey.

Water level, in feet below measuring point, 1941

Jan. 29	18.35	May 6	17.73	Aug. 21	17.58	Oct. 29	17.75
Mar. 9	17.32	June 25	17.43	Sept.24	17.86	Nov. 19	17.80
Apr. 10	18.04	July 23	17.29				

Hutchinson County

35. Herman Krause.

Water level, in feet below measuring point, 1941

Jan. 29	17.42	June 27	11.88	Sept.25	18.06	Nov. 20	22.57
Mar. 9	14.55	July 24	13.88	Oct. 29	21.62	Dec. 18	21.70
Apr. 10	12.98	Aug. 22	16.70				

a Dry.
b New measuring point.

Hutchinson County--Continued.

36.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	6.74	May 6	4.40	Aug. 22	7.80	Nov. 20	7.65
Mar. 9	a 5.15	June 26	6.77	Sept.25	(b)	Dec. 18	7.73
Apr. 10	3.52	July 24	6.88	Oct. 29	(b)		

37. Ed. C. Mettler.

Water level, in feet below measuring point, 1941

Jan. 29	13.42	May 6	7.50	Aug. 22	12.26	Nov. 20	14.56
Mar. 9	12.30	June 26	10.37	Sept.25	13.66	Dec. 18	14.81
Apr. 10	10.37	July 24	10.58	Oct. 29	14.44		

45. Christ. Harnisch.

Water level, in feet below measuring point, 1941

Jan. 29	15.29	May 6	14.38	Aug. 22	14.15	Nov. 20	14.10
Mar. 9	15.00	June 26	14.20	Sept.25	14.00	Dec. 18	14.20
Apr. 10	15.05	July 24	14.14	Oct. 29	14.04		

Kingsbury County

17. Water levels, in feet below measuring point, 1941: Apr. 5, 6.7; June 3, 5.84; Nov. 18, well destroyed; measurements discontinued.

Lincoln County

27. Andrew Lenna.

Water level, in feet below measuring point, 1941

Jan. 28	c 22.36	May 3	10.76	July 23	14.43	Oct. 28	19.44
Mar. 4	21.36	June 3	11.54	Aug. 21	16.47	Nov. 17	15.52
Apr. 4	13.30	25	13.76	Sept.24	15.49	Dec. 22	14.63

28. H. J. Rolfe.

Water level, in feet below measuring point, 1941

Jan. 28	20.22	May 3	20.21	July 23	(d)	Oct. 28	(d)
Mar. 4	21.28	June 3	20.38	Aug. 21	(d)	Nov. 17	(d)
Apr. 4	20.2	25	20.02	Sept.24	(d)	Dec. 22	(d)

29. Ed. Devitt.

Water level, in feet below measuring point, 1941

Jan. 28	7.53	May 3	1.94	July 23	7.30	Oct. 28	9.45
Mar. 4	6.5	June 3	5.08	Aug. 21	8.90	Nov. 17	9.61
Apr. 14	1.49	25	6.00	Sept.24	9.69	Dec. 22	9.80

44. United States Geological Survey. Measuring point beginning Oct. 24, 1941, top of casing, 0.24 foot below previous measuring point.

Water level, in feet below measuring point, 1941

Jan. 28	6.63	May 3	4.00	July 23	5.83	Oct. 28	8.4
Mar. 9	(e)	June 6	5.35	Aug. 21	7.17	Nov. 17	8.79
Apr. 4	6.00	25	5.18	Sept.25	8.19	Dec. 22	8.65

a Surface water entering well.
b Dry.
c Pumping.
d Well filled or caved in above water level.
e Flooded with surface water.

Minnehaha County

21. Killeaney.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	11.12	May 3	7.8	July 23	8.48	Oct. 28	10.38
Mar. 4	11.2	June 6	7.6	Aug. 21	9.26	Nov. 19	10.65
Apr. 5	10.85	25	7.93	Sept.24	9.95	Dec. 22	8.72

30. Renner Baseball Park.

Water level, in feet below measuring point, 1941

Jan. 28	8.91	May 2	6.33	July 23	7.95	Oct. 28	9.19
Mar. 4	8.92	June 3	7.39	Aug. 21	8.55	Nov. 17	9.16
Apr. 5	7.27	25	7.38	Sept.24	9.06	Dec. 22	9.22

31.

Water level, in feet below measuring point, 1941

Jan. 28	8.22	May 2	6.42	July 23	7.90	Oct. 28	8.69
Mar. 4	8.41	June 3	7.21	Aug. 21	8.37	Nov. 17	8.67
Apr. 5	6.74	25	7.47	Sept.24	8.79	Dec. 22	8.72

Moody County

19. Carl B. Jensen. Water levels, in feet below measuring point, 1941: Apr. 5, 37.53; June 3, 37.1; Nov. 17, 37.47.

20. Water levels, in feet below measuring point, 1941: Apr. 5, 4.30; June 3, 4.62; Nov. 17, 8.50.

Turner County

4. J. H. Shaw.

Water level, in feet below measuring point, 1941

Jan. 29	9.70	May 6	7.90	Aug. 22	9.79	Nov. 20	10.89
Mar. 9	10.77	June 26	8.74	Sept.25	10.88	Dec. 18	8.61
Apr. 10	9.46	July 24	8.60	Oct. 29	10.32		

22.

Water level, in feet below measuring point, 1941

Jan. 28	9.14	June 6	7.29	Aug. 21	8.92	Nov. 19	9.84
Apr. 5	6.32	25	7.87	Sept.24	9.37	Dec. 22	9.89
May 2	6.17	July 23	8.30	Oct. 28	a 13.15		

32. Otto Kraemer.

Water level, in feet below measuring point, 1941

Jan. 28	40.73	May 2	39.65	Aug. 21	40.94	Nov. 19	41.00
Mar. 4	40.4	June 25	40.48	Sept.24	41.04	Dec. 22	41.05
Apr. 5	40.00	July 23	40.65				

39. C. E. Johnson.

Water level, in feet below measuring point, 1941

Jan. 28	5.58	June 26	5.58	Sept.24	5.61	Nov. 19	5.61
Mar. 4	5.58	July 23	5.59	Oct. 28	5.60	Dec. 22	5.63
May 2	5.59	Aug. 21	5.60				

a Pumping.

Turner County--Continued.

40. W. C. Olson.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	26.27	July 23	26.97	Sept.24	25.17	Nov. 19	26.45
Mar. 4	25.3	Aug. 21	27.92	Oct. 28	25.02	Dec. 22	26.15
June 26	24.94						

41. Jorgenson Studio.

Water level, in feet below measuring point, 1941

Jan. 28	16.67	May 2	13.24	July 23	14.85	Oct. 28	15.49
Mar. 4	17.15	June 6	13.62	Aug. 21	15.56	Nov. 19	15.23
Apr. 5	16.34	26	14.96	Sept.24	16.81	Dec. 22	15.85

42.

Water level, in feet below measuring point, 1941

Jan. 28	11.57	May 2	9.45	July 23	10.74	Nov. 19	11.60
Mar. 4	11.6	June 6	10.24	Aug. 21	11.36	Dec. 22	11.62
Apr. 5	10.33	26	10.58	Sept.24	11.66		

Union County

5. J. J. Dolan.

Water level, in feet below measuring point, 1941

Jan. 28	14.49	May 3	14.21	July 23	11.72	Oct. 28	13.7
Mar. 4	14.93	June 3	12.42	Aug. 21	12.30	Nov. 17	13.88
Apr. 4	15.08	25	11.73	Sept.24	12.92	Dec. 22	14.48

24.

Water level, in feet below measuring point, 1941

Jan. 28	19.37	May 3	19.15	July 23	19.46	Oct. 28	19.4
Mar. 4	19.3	June 3	19.05	Aug. 24	19.69	Nov. 17	19.88
Apr. 4	20.5	25	19.18	Sept.24	19.89	Dec. 22	19.82

25. A. G. McGuire.

Water level, in feet below measuring point, 1941

Jan. 28	12.75	May 3	7.94	July 23	10.51	Oct. 28	12.9
Mar. 4	(a)	June 3	9.64	Aug. 21	11.88	Nov. 17	13.72
Apr. 4	9.27	25	8.74	Sept.24	12.76	Dec. 22	14.31

Yankton County

1. Gayville Cemetery.

Water level, in feet below measuring point, 1941

Jan. 29	15.96	May 6	15.37	Aug. 22	15.50	Nov. 20	16.07
Mar. 9	15.88	June 26	15.17	Sept.25	15.85	Dec. 18	16.13
Apr. 10	15.6	July 24	15.19	Oct. 29	15.99		

2B. Yankton Golf Club.

Water level, in feet below measuring point, 1941

Jan. 29	10.52	May 6	7.02	July 24	7.90	Oct. 29	11.40
Apr. 10	6.61	June 26	6.68	Aug. 22	10.00	Nov. 20	11.26

a Filled with surface water.

Yankton County--Continued.

3.

Water level, in feet below measuring point, 1941

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	10.32	May 6	5.87	Aug. 22	11.17	Nov. 20	(a)
Mar. 9	7.85	June 26	9.85	Sept.25	(a)	Dec. 18	(a)
Apr. 10	6.63	July 24	9.72	Oct. 29	(a)		

33. Adolph Schoenfeldt.

Water level, in feet below measuring point, 1941

Jan. 29	18.92	July 24	13.77	Sept.25	16.41	Nov. 20	17.75
May 6	13.94	Aug. 22	15.95	Oct. 29	17.15	Dec. 18	18.31
June 27	12.47						

46. Oswald Estate.

Water level, in feet below measuring point, 1941

Jan. 29	17.46	July 24	13.22	Sept.25	17.47	Nov. 20	18.57
May 6	9.00	Aug. 22	16.15	Oct. 29	18.01	Dec. 18	19.47
June 26	11.57						

CITY OF HURON

The recording of water-level measurements in gage hole 1 in the city well field near Huron, which was begun in 1934, was continued by the city authorities in 1941. There was no pumpage from the well field during the year as the entire city supply of 313,000,000 gallons was supplied by the James River. This is the first year since 1934 that no water was pumped from the field. Records of water levels and pumpage from 1934 through 1940 are given in Water-Supply Papers 817, 840, 845, 886, and 908. The water levels from gage hole 1 for the Huron well field given in this report were furnished by H. M. Pierce, city engineer.

The water level in gage hole 1 was higher in December 1941 than in any December since measurements were begun. The high water level has resulted chiefly from the year of rest from pumping. In December 1941, the water level in gage hole 1 was 12.4 feet higher than on December 31, 1940; 4.7 feet higher than on December 31, 1939; 14.4 feet higher than on December 31, 1938; 11.3 feet higher than on December 25, 1937; 8.8 feet higher than on December 31, 1936; 8.3 feet higher than on December 31, 1935; and 7.7 feet higher than on December 29, 1934.

Water level, in feet below measuring point, in gage hole 1 in the city well field, near Huron, S. Dak., 1941

Jan.	18.12	Apr.	13.66	July	13.50	Oct.	12.37
Feb.	15.58	May	13.70	Aug.	13.79	Dec.	11.90
Mar.	14.41	June	13.50				

a Dry.

WISCONSIN

COON CREEK AREA

By L. K. Wenzel

The observation-well program in the Coon Creek area[1/] in Vernon, Monroe, and LaCrosse Counties, Wis., was continued through August 1941 by the Federal Geological Survey. A total of 70 individual measurements of water level was made by Frank J. Fencl in 10 wells during the year.

Measurements in the 10 wells were used for computing average water levels for 1941. The water levels in well 3 for January and February, when the well was dry, were obtained by inspection from the water levels in nearby wells.

The average water level at the beginning of 1941, as shown by measurements made on January 4 and 5, was 10.62 feet above the assumed datum planes. The average water level declined in January but rose slightly in February and considerably in March, reaching an average stage of 11.61 feet during the first part of April. Recharge was apparently greatest in March. The average water level declined 0.15 foot to 11.46 feet by the first week in July and then declined 0.60 foot to 10.86 feet by August 2 to 4, at which time measurements were discontinued. Water levels in August were at comparable stages with those in August of previous years.

Water levels, in feet above datum planes, 1941

Well	Jan. 4-5	Feb. 4-5	Mar. 5	Apr. 2, 8, 10	May 4	July 2, 5	Aug. 2, 4
2	10.57	10.28	10.05	16.85	16.43	15.07	14.01
3	(a)	(a)	10.13	11.66	11.66	12.10	12.14
4	12.72	12.63	12.80	14.00	13.18	13.79	12.70
8	10.67	10.55	10.79	10.89	11.74	11.15	10.59
9	11.62	11.24	10.08	10.72	10.81	10.98	10.49
10	10.60	10.18	10.31	10.94	10.72	11.15	10.16
11	9.83	9.48	9.61	10.59	10.09	10.52	9.62
12	10.62	10.16	11.14	10.80	10.80	10.99	10.78
13	9.25	9.13	9.26	9.83	9.69	9.70	9.38
14	9.73	9.33	9.44	9.85	9.44	9.19	8.68
Average	10.62	10.33	10.36	11.61	11.46	11.46	10.86

1/ See Water-Supply Papers 777, 817, 840, 845, 886, and 908.
a Well dry.

O