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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

GROUND-WATER DATA COLLECTED IN THE MISSOURI RIVER BASIN UNITS IN KANSAS DURING 1954

By B. J. Mason and Linda Loye

Compiled as part of the program of the Department of the Interior for development of the Missouri River basin. Coordinated with the cooperative program of the United States Geological Survey, the State Geological Survey of Kansas, the Division of Sanitation of the Kansas State Board of Health, and the Division of Water Resources of the Kansas State Board of Agriculture.

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CONTENTS

ILLUSTRATIONS

TABLES

GROUND-WATER DATA COLLECTED IN THE MISSOURI RIVER BASIN UNITS IN KANSAS DURING 1954

INTRODUCTION

Ground-water studies in the Missouri River basin were begun by the United States Geological Survey during the fall of 1945 as a part of a program for the development of the resources of the basin by the United States Bureau of Reclamation and other Federal Agencies. The studies of the ground-water resources in the part of Kansas that lies within the Missouri River basin have been coordinated with the cooperative program of ground-water studies which were already being made in Kansas by the U. S. Geological Survey, the Kansas State Geological Survey, the Division of Sanitation of the Kansas State Board of Health, and the Division of Water Resources of the Kansas State Board of Agriculture.

Areas in which ground-water data have been and are being collected are the following: Almena unit in Norton and Phillips Counties; Bostwick unit in Jewell, Republic, and Cloud Counties; Cedar Bluff unit in Ellis, Rush, and Trego Counties; Glen Elder unit in Mitchell County; Kanopolis unit in Ellsworth, McPherson, and Saline Counties; Kirwin unit in Phillips, Smith, and Osborne Counties; St. Francis unit in Cheyenne County; Webster unit in Osborne County; and Wilson unit in Lincoln County. (See fig. 1.) Data relating to the Ladder Creek project in Greeley, Gove, Lane, Logan, Scott, Wallace, and Wichita Counties will be published later in a separate report.

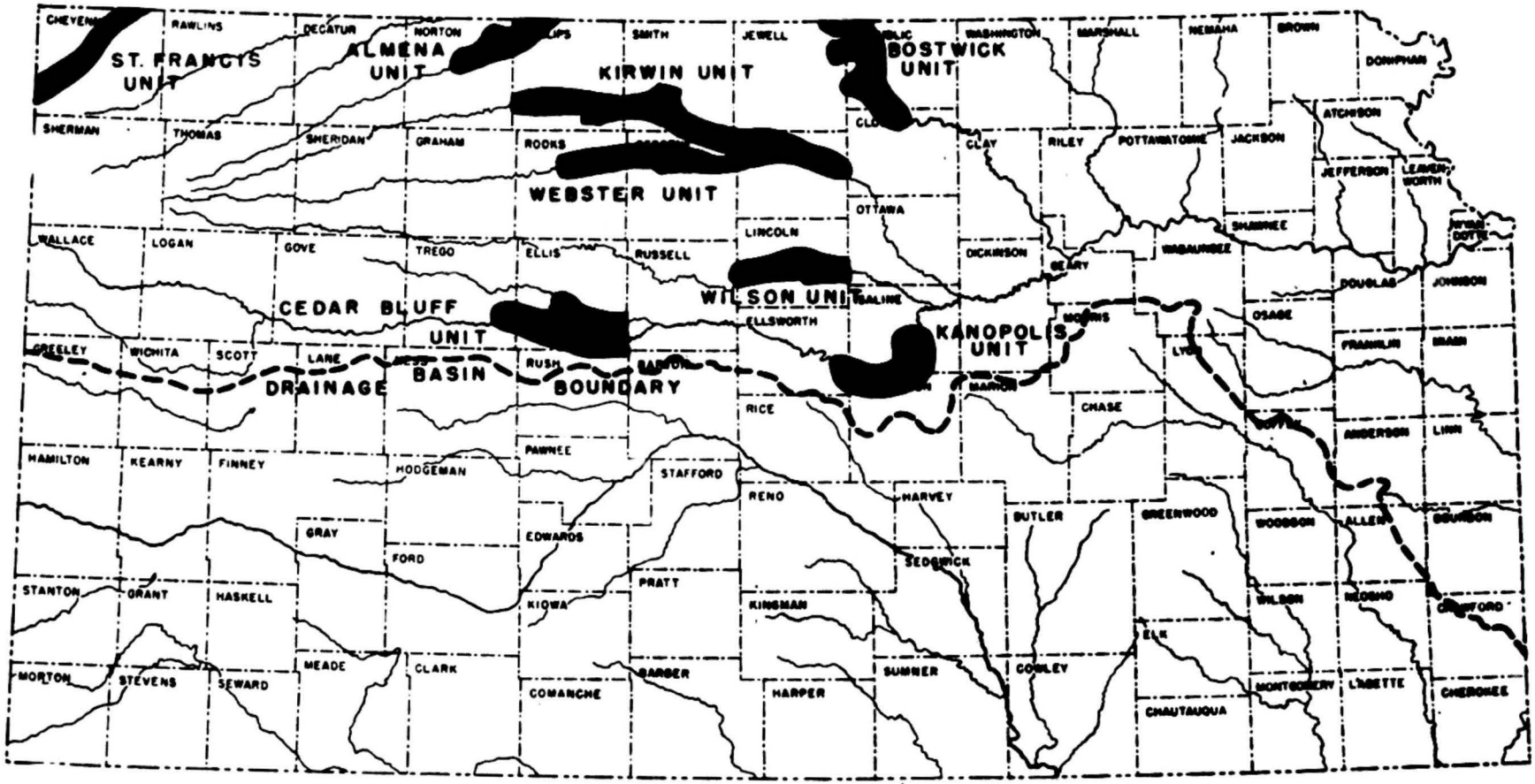


FIGURE 1.- UNITS OF THE MISSOURI BASIN IN KANSAS WITHIN WHICH GROUND-WATER DATA ARE BEING COLLECTED.

This report is the eighth of a series of annual reports on ground water in the nine above-named units in Kansas and contains the data collected during 1954. The first report of the series contained the data collected prior to and through 1947. An index to the data contained in this and previous reports is given in table 1.

Table 1.--Index to data collected within the Missouri Basin units of Kansas

	Page in report							
	1947	1948	1949	1950	1951	1952	1953	1954
Almena unit:								
Map showing locations of wells and test holes	18	....	....	....	....	....	....	....
Water-level measurements	7	8	9	9	11	11	4	13
Highest and lowest water levels	....	7	8	8	9	8	....	....
Difference between highest and lowest water levels and net change in water levels	....	7	9	9	11	11	....	....
Hydrographs of five wells	....	10	12	12	10	10	....	....
Record of wells	10	....	....	....	....	....	....	....
Logs of drilled test holes	19	....	....	....	....	....	....	....
Bostwick unit:								
Geology as related to ground water	46	....	....	....	....	....	....	....
Map showing location of jetted or bored wells	....	....	....	14	....	....	....	....
Map showing locations of wells, test holes, and water-table contours during 1948	49	....	....	....	....	....	....	....
Water-level measurements	60	12	14	21	20	19	6	13
Highest and lowest water levels	....	11	13	15	14	12	....	....
Difference between highest and lowest water levels and net change in water levels	....	11	13	17	18	16	....	....
Hydrographs of five wells	....	....	15	20	15	30	....	....
Record of wells	51	....	....	38	....	....	....	9
Logs of drilled test holes	65	....	....	....	....	....	....	....
Logs of wells	....	....	....	43	....	....	....	....
Cedar Bluff unit:								
Map showing location of jetted observation wells	....	....	....	62	....	....	....	....
Map showing locations of wells and test holes	108	....	23	....	....	....	....	....

Table 1.--Index to data collected within the Missouri Basin units of Kansas --Continued

	Page in report							
	1947	1948	1949	1950	1951	1952	1953	1954
Cedar Bluff unit--Continued								
Water-level measurements	112	14	17	63	38	35	22	22
Highest and lowest water levels	....	13	16	61	34	31	....	....
Difference between highest and lowest water levels and net change in water levels	....	13	17	63	37	33	....	....
Hydrographs of five wells	....	15	24	70	35	41	....	....
Chemical analyses of water samples	110	....	20	....	....	....	....	....
Records of wells	114	....	51	71	....	....	....	10
Logs of drilled test holes	118	....	25	....	....	....	....	....
Logs of wells	....	....	....	73	....	....	....	....
Glen Elder unit:								
Map showing locations of wells and test holes	125	....	....	....	....	....	....	....
Water-level measurements	126	18	59	98	51	43	24	24
Highest and lowest water levels	....	17	58	97	49	42	....	....
Difference between highest and lowest water levels and net change in water levels	....	17	58	98	51	43	....	....
Hydrographs of five wells	136	19	61	100	50	45	....	....
Record of wells	129	....	....	....	....	....	....	....
Logs of drilled test holes	137	....	....	....	....	....	....	....
Kanopolis unit:								
Map showing locations of wells and test holes	149	....	....	105	....	....	....	....
Water-level measurements	148	22	63	102	59	51	25	26
Highest and lowest water levels	....	21	62	101	54	46	....	....
Difference between highest and lowest water levels and net change in water levels	....	21	63	102	57	48	....	....
Hydrographs of five wells	153	24	66	109	55	58	....	....
Logs of drilled test holes	154	....	....	124	....	....	....	....
Logs of jetted observation wells	....	....	....	110	73	....	....	....
Logs of Porter Soil Sample test holes	....	....	....	117	....	....	....	....
Record of wells	....	....	....	106	70	....	....	10
Kirwin unit:								
Map showing location of observation wells	....	26	....	....	....	....	....	....
Map showing location of jetted observation wells	....	....	....	....	79	....	....	....

Table 1.--Index to data collected within the Missouri Basin units of Kansas --Continued

	Page in report							
	1947	1948	1949	1950	1951	1952	1953	1954
Kirwin unit--Continued								
Water-level measurements	....	28	68	128	84	63	28	29
Highest and lowest water levels	....	25	67	127	78	59	....	....
Difference between highest and lowest water levels and net change in water levels	....	27	68	128	82	61	....	....
Hydrographs of five wells	....	36	107	132	80	69	....	....
Chemical analyses of water samples	....	....	72	....	....	....	....	....
Logs of drilled test holes	....	....	74	....	....	....	....	....
Logs of wells	....	....	....	....	93	....	....	....
Record of wells	....	....	....	....	92	....	....	11
St Francis unit:								
Geology in relation to ground water	....	37	....	....	....	....	....	....
Map showing location of wells	....	42	....	....	....	....	....	....
Water-level measurements	....	43	109	134	110	71	31	31
Highest and lowest water levels	....	41	108	133	108	70	....	....
Difference between highest and lowest water levels and net change in water levels	....	43	109	134	110	71	....	....
Hydrographs of five wells	....	48	113	136	109	74	....	....
Record of wells	....	49	....	....	....	....	....	11
Webster unit:								
Map showing location of wells	171	....	....	....	....	....	....	....
Water-level measurements	172	57	115	138	114	76	33	34
Highest and lowest water levels	....	56	114	137	112	75	....	....
Difference between highest and lowest water levels and net change in water levels	....	56	114	137	112	76	....	....
Hydrographs of five wells	178	58	116	139	113	78	....	....
Record of wells	174	....	....	....	....	....	....	12
Wilson unit:								
Geology in relation to ground water	....	59	....	....	....	....	....	....
Map showing location of wells	180	....	....	....	....	....	....	....
Map showing locations of wells and test holes	....	62	....	....	....	....	....	....
Water-level measurements	181	64	118	141	117	80	34	34
Highest and lowest water levels	....	63	117	140	115	79	....	....
Difference between highest and lowest water levels and net change in water levels	....	64	118	141	117	80	....	....

Table 1.--Index to data collected within the Missouri Basin units of Kansas --Continued

	Page in report							
	1947	1948	1949	1950	1951	1952	1953	1954
Wilson unit--Continued								
Hydrographs of five wells.....	....	67	121	144	116	82	....	....
Chemical analyses of water samples.....	188	68	....	....	....	....	....	....
Record of wells.....	184	83	....	....	....	....	....	....
Logs of drilled test holes.....	....	69	....	....	....	....	....	....

As a part of the program for development of the Missouri River basin, water-level measurements were being made in a total of 303 wells at the beginning of 1954. During 1954, 7 wells were added to the program and measurement of the water level in 16 wells was discontinued. The total number of wells in the program at the end of 1954 was 294; distribution of these wells by units is shown in table 2.

Table 2.--Number of observation wells in Missouri Basin units in Kansas, 1954.

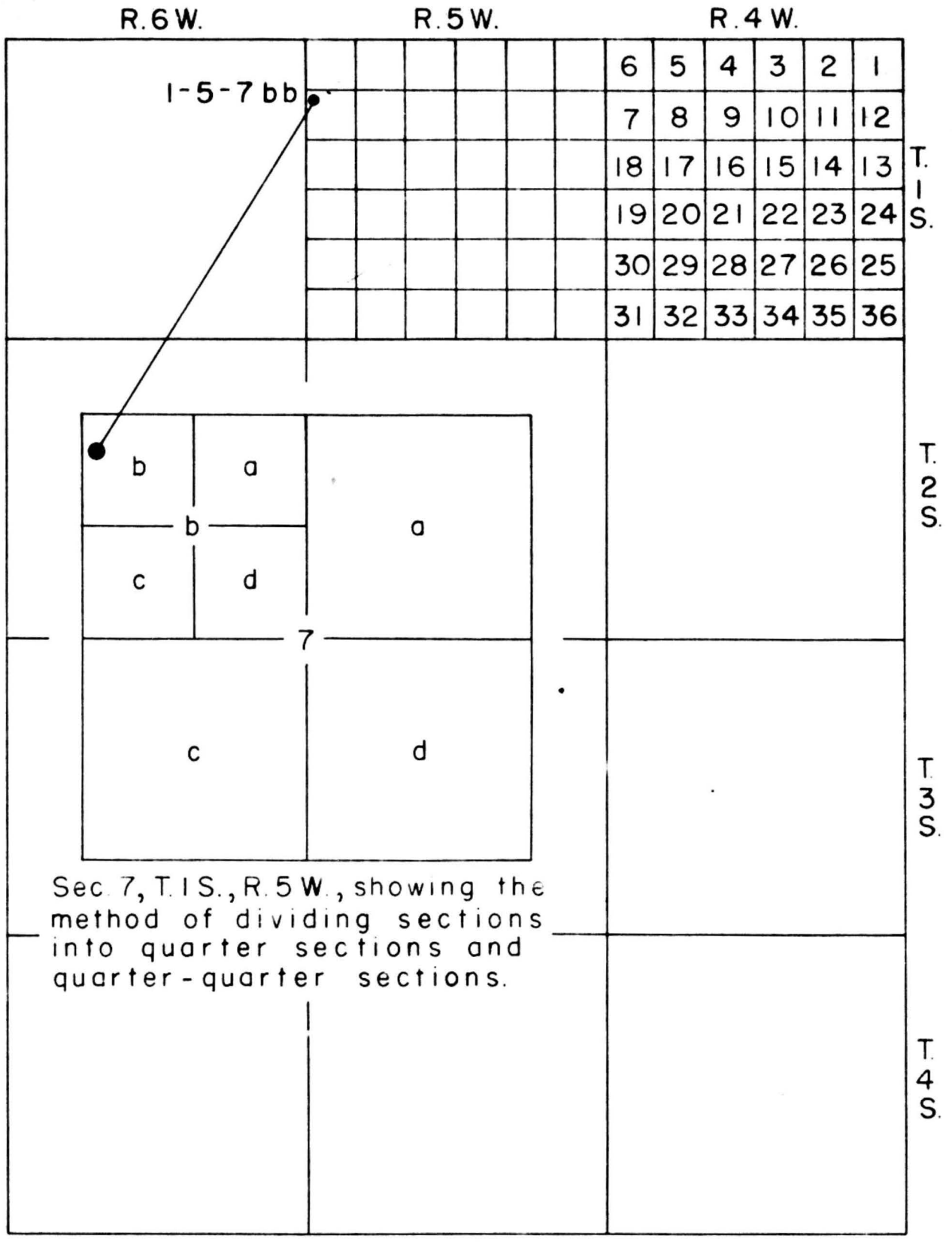
Unit	At beginning of year	Discontinued during year	Added during year	At end of year
Almena.....	13	3	0	10
Bostwick.....	109	2	4	111
Cedar Bluff...	37	3	1	35
Glen Elder....	7	0	0	7
Kanopolis.....	57	3	0	54
Kirwin.....	40	3	1	38
St. Francis...	22	0	1	23
Webster.....	7	1	0	6
Wilson.....	11	1	0	10
Total.....	303	16	7	294

WELL-NUMBERING SYSTEM

The well numbers in this report are based on their location within the Bureau of Land Management's survey of the area. The first numeral of the number indicates the township, the second the range, and the third the section in which the well is located. The lowercased letters following the section number indicate the location of the well within the section. The subdivisions of the section are lettered a, b, c, and d in a counterclockwise direction, beginning in the northeast quarter of the section, quarter section, or quarter-quarter section (10-acre tract). (See fig. 2.) If two or more wells are located within the same 10-acre tract, they are distinguished by numerals following the lowercased letters.

WELL RECORDS

Records have been compiled for a number of wells and are presented in table 3. These records have not been included in previous reports, although water-level measurements for some of them have been listed in earlier reports.



Sec. 7, T. 1 S., R. 5 W., showing the method of dividing sections into quarter sections and quarter-quarter sections.

Figure 2.-Sketch illustrating well-numbering system.

Table 3.--Well records not included in previous reports

Well number: See text for explanation of well-numbering system.
Owner or tenant: U. S. B. R., United States Bureau of Reclamation; U. S. G. S., United States Geological Survey.
Type of well: B, bored; Dn, driven; Dr, drilled; Du, dug; J, jetted.
Depth of well: Measured depths are given in feet and tenths below measuring point; reported depths are given in feet below land surface.
Type of casing: B, brick; C, concrete; GI, galvanized iron; GP, galvanized pipe; R, rock; S, steel; T, tile; W, wood.
Type of material: G, gravel; S, sand; Si, silt.
Stratigraphic unit: Kn, Niobrara formation; Qal, alluvium; Qm, Meade formation; Qs, Sanborn formation; Qt, terrace deposits; To, Ogallala formation.
Type of pump: C, cylinder; J, jet; N, none; T, turbine.
Type of power: E, electric; G, gasoline; H, hand; N, none; T, tractor; W, wind.
Use of water: D, domestic; I, irrigation; N, none; S, stock.
Description of measuring point: Bpu, base of pump; Tca, top of casing; Tcu, top of curb; Tpi, top of pipe; Tpl, top of platform.
Depth to water: Measured depths are given in feet, tenths, and hundredths; reported depths are given in feet only.

Well number	Owner or tenant	Type of well	Depth of well (feet)	Diameter of well (inches)	Type of casing	Principal water-bearing bed: Type of material	Principal water-bearing bed: Stratigraphic unit	Type of pump	Type of power	Use of water	Measuring point: Description	Measuring point: Height above land surface (feet)	Depth to water level below land surface (feet)	Date of measurement	Remarks
							Bostwick unit								
1- 5-18[illegible]	[illegible]	Dr	103.0	8	T	S	Qal	C	[illegible]	[illegible]	Tca	1.5	87.36	2-27-53	
1- 5-18[illegible]	[illegible]	Dr	64.3	8	T	G	Qal	[illegible]	W	D	Tca	-4.0	57.52	2-26-53	
1- 5-29[illegible]	[illegible]	Dr	51.0	18	T	G,S	Qm	[illegible]	[illegible]	D,S	Tca	-5.5	33.66	3- 5-53	Date in table 3, 1953 report, incorrect.
1- 5-29cc	Eugene Aurnd.....	Dr	44.5	18	T	G,S	Qm	C	W	D,S	Tcu	1.0	27.37	3- 5-53	
1- 5-30ad	C. Z. Owen.....	Dr	37.0	8	T	G,S	Qm	C	G	D,S	Tca	-5.0	18.55	3- 6-53	Measurement for this date in table 3, 1953 report incorrect.
1- 5-30bb	F. S. Sweet.....	Dr	42.0	6	GI	G,S	Qm	J	E	D,S	Tca	-6.0	39.70	3- 4-53	Measurement in table 3, 1953 report, incorrect.
1- 5-32cc	Fred Morlan.....	Du	27.0	96	B	Si	Qm	C	H	N	Tca	0	14.37	3-26-53	1953 measurements included in this report.
1- 6- 4cb	U. S. B. R.....	Dr,J	22.0	1¼	GP	S	Qal	N	N	N	Tpi	1.2	9.25	4-15-53	
1- 6- 5ac	U. S. B. R.....	Dr,J	20.1	1¼	GP	S	Qal	N	N	N	Tpi	1.9	15.40	4-15-53	
1- 6- 5cd	U. S. B. R.....	Dr,J	43.3	1¼	GP	S	Qal	N	N	N	Tpi	.8	31.53	4-15-53	
1- 6- 6ad	U. S. B. R.....	Dr,J	21.7	1¼	GP	S	Qal	N	N	N	Tpi	1.7	13.63	4-15-53	
1- 6- 6cb	U. S. B. R.....	Dr,J	21.0	1¼	GP	S	Qal	N	N	N	Tpi	2.1	10.18	4-15-53	
1- 6- 6da1	Formerly listed as 1-6-6da; see p. 39, 1950 report.														
1- 6- 6da2	U. S. B. R.....	Dr,J	32.8	1¼	GP	S	Qal	N	N	N	Tpi	2.7	19.93	4-15-53	
1- 6- 6db	U. S. B. R.....	Dr,J	21.5	1¼	GP	S	Qal	N	N	N	Tpi	1.8	13.27	4-15-53	Measurements for 1953 included in this report.
1- 6- 6dd	U. S. B. R.....	Dr,J	32.0	1¼	GP	S	Qal	N	N	N	Tpi	1.0	25.25	4-15-53	Measurement for this date in table 3, 1953 report, incorrect.
1- 6-13aa	P. N. Stier.....	Dr	70.0	8	GI	G	Qal	J	E	D	Tca	-4.0	61.02	2-26-53	
1- 6-14cb	Glenn Kleckner.....	Dr	96.0	6	GI	G	Qm	J	E	D	Tca	-5.5	84.16	2-27-53	
1- 6-26cc	W. W. Gunn.....	Dr	76.0	8	T	Si	Qm	J	E	D,S	Tca	-3.0	40.86	4- 6-53	
1- 6-27cc	L. E. Baringer.....	Du	65.5	72	C	S	Qm	J	E	D	Tcu	.5	57.20	4-16-53	
1- 6-35cd	Fred Moreland.....	Du	51.5	48	T	Si	Qm	C	W	S	Tpl	1.0	30.10	3- 5-53	
1- 6-36aa	C. A. Hobson.....	Dr	61.0	10	T	Si	Qm	C	W	N	Tca	1.5	28.90	3- 5-53	Measurement this date, table 3, 1953 report, incorrect.
1- 6-36bc	Preston Gunn.....	Dr	48.5	18	T	S	Qm	C	W	N	Tca	0	34.71	3-26-53	
1- 7- 1db	U. S. B. R.....	Dr,J	21.8	1¼	GP	S	Qal	N	N	N	Tpi	1.7	9.50	4-15-53	
1- 7- 1dc	U. S. B. R.....	Dr,J	21.5	1¼	GP	S	Qal	N	N	N	Tpi	1.8	10.80	4-15-53	
1- 7- 2dd1	Formerly listed as 1-7-2dd; see p. 39, 1950 report.														
1- 7- 2dd2	U. S. B. R.....	Dr,J	21.1	1¼	GP	S	Qal	N	N	N	Tpi	2.0	8.23	4-15-53	

1- 7- 4ad	U. S. B. R.....	Dr,J	22.0	1¼	GP	S	Qal	N	N	N	Tpi	1.2	6.47	4-15-53	Measurements for 1953 included in this report.
1- 7- 4ba	U. S. B. R.....	Dr,J	22.2	1¼	GP	S	Qal	N	N	N	Tpi	1.0	13.35	4-15-53	Measurements in table 3, 1953 report, erroneous; correct measurements included in this report.
2- 5- 6cc	J. E. Ayers.....	Du	42.5	48	C	S	Qal	J	E	D	Tcu	.5	25.16	3- 5-53	Measurement for this date omitted from table 3, 1953 report.
2- 6- 3ab	Ervain Osborne.....	Dr	59.0	6	GI	S	Qm	N	N	N	Tca	.5	33.94	3- 5-53	
2- 6- 3cd	Don Switzer.....	Dr	43.5	8	T	Si	Qm	C	H	N	Tca	0	31.38	3-12-53	
2- 6- 4ab	Fay Vestal.....	Du	86.0	36	T	S	Qm	J	E	D,S	Tca	1.8	45.46	3- 5-53	
2- 6- 4cc	W. J. Mesnard.....	Dr	40.0	6	GI	S	Qm	C	W	S	Tca	1.0	28.85	3-12-53	
2- 6-10da	C. V. Warren.....	Dr	50.0	12	GI	G	Qal	J	E	D,S	Tcu	.5	30.13	4- 6-53	
2- 6-11da	Revah Morris.....	Du	41.0	60	B	Si	Qal	C	E	S	Tca	1.0	28.80	3-26-53	
2- 6-16aa	Lewis Topliff.....	Du	37.5	36	C	Si	Qm	N	N	N	Tcu	1.0	30.28	4- 6-53	
Cedar Bluff unit															
14-22-36aa	U. S. G. S.....	Dr	74.5	1¼	GP	S	Qal	N	N	N	Tpi	1.5	42.65	10-19-49	Measurement not included in 1950 report.
Kanopolis unit															
15- 2-17cd	U. S. G. S.....	Dn	30.7	1¼	GP	G,S	Qt	N	N	N	Tpi	.4	23.73	3-28-46	See table 8, this report, for water-level measurements made in 1946 for these wells.
15- 2-18cd	U. S. G. S.....	Dn	43.7	1¼	GP	G,S	Qal	N	N	N	Tpi	1.4	24.12	3-29-46	
15- 2-30dc	U. S. G. S.....	Dn	37.0	1¼	GP	G,S	Qal	N	N	N	Tpi	1.0	21.38	3-27-46	
15- 3-24dd	U. S. G. S.....	Dn	36.8	1¼	GP	G,S	Qal	N	N	N	Tpi	1.2	18.90	3-27-46	
15- 3-36ab	U. S. G. S.....	Dn	45.9	1¼	GP	G,S	Qal	N	N	N	Tpi	1.1	25.30	3-26-46	
16- 2- 7bb	U. S. G. S.....	Dn	31.2	1¼	GP	G,S	Qal	N	N	N	Tpi	.8	20.20	3-21-46	
16- 2-18cc	U. S. G. S.....	Dn	38.1	1¼	GP	G,S	Qal	N	N	N	Tpi	.9	25.80	3-21-46	
16- 3-13cd	U. S. G. S.....	Dn	47.4	1¼	GP	G,S	Qal	N	N	N	Tpi	1.3	20.70	4- 1-46	
16- 3-26dc	U. S. G. S.....	Dn	27.8	1¼	GP	G,S	Qal	N	N	N	Tpi	1.3	20.60	4- 9-46	
17- 3-17dd	U. S. G. S.....	Dn	38.9	1¼	GP	G,S	Qal	N	N	N	Tpi	1.2	26.96	4-17-46	

Kanopolis unit--Continued

17- 3-18dd	U. S. G. S.....	Dn	52.9	1¼	GP	G,S	Qal	N	N	N	Tpi	1.1	27.44	4-19-46	See table 8, this report, for water-level measurements made in 1946 for these wells.
17- 3-30dd	U. S. G. S.....	Dn	57.0	1¼	GP	G,S	Qal	N	N	N	Tpi	1.0	30.53	4-23-46	
17- 4-25dd	U. S. G. S.....	Dn	49.8	1¼	GP	G,S	Qal	N	N	N	Tpi	1.2	24.30	4-23-46	

Kirwin unit

4-14-34bc	Laura Davis.....	Du	46.3	32	R	G,S	Qt	C	W	S	Tpl	2.0	42.15	11-21-45	
4-15-31bb	Wilbur Lala.....	Dr	43.5	8	T	G,S	Qal	C	W	S	Tpl	1.7	35.90	11-21-45	
4-17-31bc	C. B. Brower.....	B	61.3	8	T	G,S	Qt	C	W	D,S	Tcu	.8	51.39	2- 4-46	
4-18-30ab	Sutley Estate.....	Du	36.5	...	..	S	Qal,Kn	N	N	N	Tcu	.2	19.30	12- 4-45	
4-19-35ab	Glenn Seeger.....	Dr	35.0	10	GI	G,S	Qal	C	W	D,S	Bpu	1.5	12.66	2-21-46	
4-20-21cc	Fred Albrecht.....	Dr	152.0	8	GI	...	Qs,Kn	N	N	N	Tca	1.0	48.92	2- 6-46	
5-13- 4dc	Roy Eller.....	Du	43.0	24	R	G,S	Qal	C	W	D,S	Tcu	.4	35.10	11-20-45	
5-13-33ba	W. L. Gearhart et al..	Du	38.7	48	..	G,S	Qt	C	H	D	Tpl	0	26.80	11-27-45	
5-15- 2dc	G. K. Wamhoff.....	Dr	42.2	10	T	G,S	Qt	C	W	S	Tpl	1.2	33.15	11-20-45	
5-17-12aa	E. R. Downing et al...	Du	55.0	36	C	S	Qs	C	W	D,S	Tpl	1.0	52.89	2-13-46	
6-11-34aa	W. E. Lowdon.....	Du	40.8	28	R	G,S	Qt	N	N	N	Tpl	.1	35.98	11-26-45	
6-12-23cd	C. Fink.....	Du	31.8	36	R	G,S	Qt	C	W	D	Tpl	.75	26.84	11-26-45	
6-13-12ba	F. L. Smith.....	Dr	47.9	8	W	G,S	Qal	C	W	D,S	Tpl	.2	40.50	11-19-45	

St. Francis unit

2-39-19cc	A. C. Keller.....	Dr	23.0	4	GI	G,S	Qal	C	H	N	Tca	0	15.77	6- 8-48	Formerly listed as 2-40-25db. Record in 1948 report inaccurate.
3-42-21bc	Andrew Rueb.....	Dr	220.0	5	GI	G,S	To	C	W	S	Bpu	.8	201.50	9- 2-53	
3-42-22dad	F. F. Blair.....	Dr	162.0	5	GI	G,S	To	N	N	N	Tca	1.3	143.42	9- 3-53	
3-42-26cad	Henry Richers.....	Dr	195.5	6	GI	G,S	To	C	W	D,S	Tca	.8	181.65	6-29-53	
3-42-28dda	Clarence Raile.....	Dr	159.0	5	GI	G,S	To	C	H	D,S	Bpu	.3	151.66	6-26-53	
4-42- 2ccc	Henry Lampe.....	Dr	190.0	5	GI	G,S	To	N	N	N	Tca	.7	176.90	6-26-53	
4-42- 5aaa	W. E. Klie.....	Dr	223.0	5	GI	G,S	To	C	W	D,S	Tcu	1.2	191.67	6-26-53	
4-42-26bcb	Pete O'Brien.....	Dr	56.0	24	S	G,S	To	T	T	I	Tca	.5	22.51	2- 1-54	

	Webster unit
7-11-26aa	Formerly listed as 7-11-23dd; see p. 175, 1947 report.

ALMENA UNIT

Table 4.--Water-level measurements, in feet below land-surface datum, in the Almena unit, 1954.

1-19-19cc. Apr. 6, 20.17; July 24, 18.09

1-20-30cc. Measurements discontinued

1-21-35dc. Measurements discontinued

2-21-1bb. Apr. 6, 23.69

2-21-2bd. Apr. 6, 23.37

2-21-11aa. Apr. 6, 29.61

2-21-18aa. Apr. 6, 41.15; July 24, 41.28

2-21-19dd. Apr. 6, 62.08

2-22-11dc. Measurements discontinued

2-22-26ac. Apr. 6, 28.81; July 24, 29.05

2-22-28aa. Apr. 6, 48.17; July 24, 48.17

2-23-36cd. Apr. 6, 28.13; July 24, 29.84

3-23-8aa. Apr. 6, 39.71

BOSTWICK UNIT

Table 5.--Water-level measurements, in feet below land-surface datum, in the Bostwick unit, 1954.

/Asterisk (*) indicates well added to program in 1954./

1-5-7bb. Feb. 2, 8.87; Aug. 5, 8.44; Oct. 12, 8.98

1-5-7cb. Feb. 2, 22.33; Aug. 5, 21.51; Oct. 12, 21.98

1-5-8dc. Feb. 2, 6.03; Aug. 5, 6.53; Oct. 12, 6.76

1-5-9ba. Feb. 2, 22.08; Aug. 5, 23.62; Oct. 12, 23.67

1-5-14dc. Feb. 2, 8.37; Aug. 5, 8.70; Oct. 12, 9.15

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued.

1-5-16dd. Feb. 2, 12.98; Aug. 5, 13.20; Oct. 12, 13.30

1-5-17dd. Feb. 2, 14.62; Aug. 5, 14.84; Oct. 12, 15.20

1-5-18ad. Feb. 1, 87.55; Aug. 11, 87.47

1-5-18dc. Feb. 1, 56.12; Aug. 11, 56.76

1-5-23cc. Dry during all of 1954

1-5-25cd. Dry during all of 1954

1-5-25dc. Feb. 2, 9.87; Aug. 5, 9.53; Oct. 11, 10.63

1-5-26cc. Dry during all of 1954

1-5-26dd. Feb. 2, Dry; Aug. 5, 7.97; Oct. 11, Dry

1-5-27dc. Dry during all of 1954

1-5-28aa. Feb. 2, 16.84; Aug. 5, 16.81; Oct. 12, 17.09

1-5-29ba. Feb. 1, 35.39; Aug. 11, 35.19

1-5-29cc. Feb. 1, 27.92; Aug. 11, 28.36

1-5-30ad. Feb. 1, 19.48; Aug. 11, 19.17

1-5-30bb. Feb. 1, 40.34; Aug. 11, 40.40

*1-5-32cc. (Includes measurements made in 1953 but omitted from report for that year)

Date	Water level	Date	Water level	Date	Water level
Mar. 26, 1953	14.37	July 6, 1953	14.04	Dec. 17, 1953	14.80
May 7	14.48	Aug. 6	14.46	Feb. 1, 1954	15.11
June 1	14.01	Sept. 8	14.59	Aug. 11	13.48

1-5-33ba. Feb. 2, 11.91; Aug. 5, 10.82; Oct. 12, 12.28

1-5-34bb. Feb. 2, 20.90; Aug. 5, Dry

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

1-6-4ac.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	8.81	July 23	8.72	Nov. 15	9.53
Mar. 29	8.87	Sept.15	9.41	Dec. 15	9.41
May 21	8.41				

1-6-4cb. Feb. 3, 9.69; Mar. 29, 9.87; May 21, 9.34; Measurements discontinued.

1-6-4dc.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	16.02	July 23	15.67	Sept.15	16.61
Mar. 29	15.88	Aug. 17	16.46	Dec. 15	16.69
May 21	15.51				

1-6-5ac.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	16.23	June 25	15.90	Sept.15	16.37
Mar. 29	16.52	July 23	16.04	Nov. 5	16.68
May 21	16.46	Aug. 17	16.12	Dec. 15	16.78

1-6-5cd.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	32.57	July 23	32.81	Sept.15	32.90
Mar. 29	32.69	Aug. 17	32.87	Nov. 5	33.03
May 21	32.64				

1-6-5da.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	9.30	July 23	9.29	Nov. 5	10.05
Mar. 29	9.86	Aug. 17	9.13	Dec. 15	10.17
May 21	9.02	Sept.15	9.58		

1-6-5dd. (Well jetted deeper Mar. 21, 1954.)

Date	Water level	Date	Water level	Date	Water level
May 21	29.90	July 23	30.71	Sept.15	33.43
June 25	29.99	Aug. 17	30.87	Nov. 5	33.43

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

1-6-6ad.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	14.21	June 25	13.50	Sept.15	14.30
Mar. 29	14.35	July 23	13.76	Nov. 5	14.70
May 21	14.11	Aug. 17	13.04	Dec. 15	14.82

1-6-6bc.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	8.97	June 25	8.48	Sept.15	9.30
Mar. 29	9.21	July 23	9.08	Nov. 5	9.58
May 21	8.84	Aug. 17	9.13	Dec. 15	9.02

1-6-6cb.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	10.44	June 25	9.75	Sept.15	10.28
Mar. 29	10.63	July 23	10.25	Nov. 5	10.69
May 21	10.29	Aug. 17	10.27	Dec. 15	10.78

1-6-6cc.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	26.81	June 25	26.78	Sept.15	17.91
Mar. 29	26.70	July 23	26.92	Nov. 5	19.03
May 21	26.65	Aug. 17	23.63	Dec. 15	20.19

1-6-6da1. (Formerly listed as 1-6-6da.)

Date	Water level	Date	Water level	Date	Water level
Feb. 3	18.77	June 25	18.68	Sept.15	18.90
Mar. 29	18.87	July 23	18.70	Nov. 5	19.13
May 21	18.90	Aug. 17	18.76	Dec. 15	19.19

1-6-6da2

Date	Water level	Date	Water level	Date	Water level
Feb. 3	21.28	June 25	21.46	Sept.15	21.78
Mar. 29	21.38	July 23	21.64	Nov. 5	21.80
May 21	21.38	Aug. 17	21.68	Dec. 15	21.78

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

*1-6-6db.(Includes measurements made but omitted from 1953 report.)

Date	Water level	Date	Water level	Date	Water level
Apr. 15, 1953	13.27	Dec. 17, 1953	13.85	July 23, 1954	13.61
May 22	13.42	Feb. 3, 1954	13.96	Aug. 17	13.78
June 23	12.22	Mar. 29	14.11	Sept.15	13.97
July 24	13.22	May 21	13.93	Nov. 5	14.31
Aug. 20	13.48	June 25	13.43	Dec. 15	14.46
Sept.25	13.74				

1-6-6dd

Date	Water level	Date	Water level	Date	Water level
Feb. 3	26.72	June 25	26.94	Sept.15	27.08
Mar. 29	26.82	July 23	26.99	Nov. 5	27.22
May 21	26.80	Aug. 17	27.03	Dec. 15	27.22

1-6-11aa. Feb. 2, 4.00; Aug. 5, 4.69; Oct. 12, 4.68

1-6-13aa. Feb. 1, 61.15; Aug. 11, 61.13

1-6-14cb. Feb. 1, 84.06; Aug. 11, 84.04

1-6-24cb. Feb. 1, 56.66; Aug. 11, 56.62

1-6-26cc. Feb. 1, 41.59; Aug. 11, 41.81

1-6-27cc. Feb. 1, 57.23; Aug. 11, 57.73

1-6-35cd. Feb. 1, 29.87; Aug. 11, 29.94

1-6-36aa. Feb. 1, 29.37; Aug. 11, 28.80

1-6-36bc. Feb. 1, 35.53; Aug. 11, 35.80

1-7-1bb.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	9.79	June 25	9.58	Sept.15	10.18
Mar. 29	9.85	July 23	10.04	Nov. 5	10.25
May 21	9.75	Aug. 17	10.02	Dec. 15	10.11

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

1-7-1db.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	9.60	June 25	8.70	Sept.15	9.56
Mar. 29	10.73	July 23	8.27	Nov. 5	9.96
May 21	9.43	Aug. 17	9.39	Dec. 15	10.01

1-7-1dc.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	10.83	June 25	9.89	Sept.15	10.32
Mar. 29	10.81	July 23	10.85	Nov. 5	9.23
May 21	10.26	Aug. 17	10.08	Dec. 15	8.92

1-7-2da.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	7.22	June 25	6.05	Sept.15	7.50
Mar. 29	7.22	July 23	7.00	Nov. 5	7.72
May 21	6.90	Aug. 17	7.24	Dec. 15	7.50

1-7-2dd1. (Listed as 1-7-2dd prior to 1953.)

Date	Water level	Date	Water level	Date	Water level
Feb. 3	12.56	June 25	12.20	Sept.15	11.27
Mar. 29	12.46	July 23	12.70	Nov. 5	8.78
May 21	12.09	Aug. 17	12.73	Dec. 15	8.60

1-7-2dd2.

Date	Water level	Date	Water level	Date	Water level
Feb. 3	8.32	June 25	7.09	Sept.15	7.59
Mar. 29	8.34	July 23	7.91	Nov. 5	8.39
May 21	7.88	Aug. 17	8.35	Dec. 15	8.07

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

*1-7-4ad. (Includes measurements erroneously listed in 1953 report for 1-7-4ba.)

Date	Water level	Date	Water level	Date	Water level
Apr. 15, 1953	6.47	Dec. 17, 1953	6.00	July 23, 1954	6.14
May 22	6.53	Feb. 3, 1954	6.22	Aug. 17	6.91
June 23	5.35	Mar. 29	6.21	Sept.15	5.62
July 24	6.16	May 21	5.55	Nov. 5	4.78
Aug. 20	6.45	June 25	5.38	Dec. 15	4.36
Sept.25	6.28				

1-7-4ba. (Includes measurements erroneously listed in 1953 report for 1-7-4bc.)

Date	Water level	Date	Water level	Date	Water level
Apr. 15, 1953	13.35	Dec. 17, 1953	14.06	July 23, 1954	13.30
May 22	13.50	Feb. 3, 1954	14.20	Aug. 17	12.46
June 23	13.42	Mar. 29	14.08	Sept.15	12.29
July 24	13.68	May 21	14.01	Nov. 5	12.88
Aug. 20	13.83	June 25	13.60	Dec. 15	13.17
Sept.25	14.04				

1-7-4bc. (Erroneously included in 1953 report.)

2-4-7ba. Feb. 2, 12.75; Aug. 5, 12.85; Oct. 12, 13.25

2-4-18cc. Feb. 2, 18.00; Aug. 5, 17.36; Oct. 12, 18.14

2-4-18dc. Feb. 2, 27.74; Aug. 5, 28.59; Oct. 12, 28.90

2-4-31aa. Feb. 2, 5.36; Aug. 5, 6.76; Oct. 12, 6.90

2-4-32cc. Feb. 2, 7.57; Aug. 5, 7.94; Oct. 12, 7.78

2-5-2ac. Feb. 2, 5.87; Aug. 5, 6.12; Oct. 12, 6.26

2-5-2ba. Feb. 2, 10.67; Aug. 5, 9.97; Oct. 11, 10.52

2-5-6cc. (Includes measurement omitted in 1953 report.) Mar. 5, 1953, 25.16; Feb. 1, 1954, 26.27; Aug. 11, 25.37

2-5-11da. Feb. 2, 5.96; Aug. 5, 7.46; Oct. 12, 6.33

2-5-14dd. Feb. 2, 9.90; Aug. 5, 10.37

2-5-23dd. Feb. 2, 8.27; Aug. 5, 7.85; Oct. 12, 8.15

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

2-5-36ab. Feb. 2, 21.05; Aug. 5, 21.19; Oct. 12, 21.43

2-6-3ab. Feb. 1, 35.23; Aug. 11, 35.32

2-6-3cd. Feb. 1, 32.18; Aug. 11, 33.15

2-6-4ab. Feb. 1, 45.88; Aug. 11, 46.91

2-6-4cc. Feb. 1, 28.53; Aug. 11, 27.02

2-6-9cb. Feb. 1, 24.25; Aug. 11, 24.20

2-6-10da. Feb. 1, 29.82; Aug. 11, 31.71

2-6-11da. Feb. 1, 29.07; Aug. 11, 28.12

2-6-16aa. Feb. 1, 30.24; Aug. 11, 29.70

3-4-8cd. Feb. 2, 7.79

3-4-17bb. Feb. 2, 7.90; Aug. 5, 8.02; Oct. 12, 8.25

3-4-17cc. Feb. 2, 7.07; Aug. 5, 8.18; Oct. 12, 8.30

3-4-18dc. Feb. 2, 10.78; Aug. 5, 12.54; Oct. 12, 11.82

3-4-28ab. Feb. 2, 25.63; Aug. 5, 26.03; Oct. 12, 26.48

3-4-29ab. Feb. 2, 8.14; Aug. 5, 8.58; Oct. 12, 8.96

3-4-29bc. Feb. 2, 6.57; Aug. 5, 7.30; Oct. 12, 6.97

3-4-32cc. Feb. 2, 6.15; Aug. 5, 7.52; Oct. 12, 7.10

3-5-1ab. Feb. 2, 11.84; Aug. 5, 11.83; Oct. 12, 11.72

3-5-9dc. Feb. 2, 5.14

3-5-11cc. Feb. 2, 15.02; Aug. 5, 15.39; Oct. 12, 15.93

3-5-11dd. Feb. 2, 18.84; Aug. 5, 20.04; Oct. 12, 20.34

3-5-16dd. Feb. 2, 6.78; Aug. 5, 8.83; Oct. 12, 8.84

3-5-21dd. Feb. 2, 10.41; Aug. 15, 11.65; Oct. 12, 12.10

4-4-4aa. Feb. 2, 16.51; Aug. 5, 17.21; Oct. 12, 17.26

Table 5.--Water-level measurements in feet below land-surface datum, in the Bostwick unit, 1954--Continued

4-4-4cc. Feb. 2, 10.79; Aug. 5, 11.44; Oct. 12, 11.41

4-4-5aa. Feb. 2, 6.04; Aug. 5, 6.70; Oct. 12, 6.62

4-4-17dc. (Shown as 4-4-17cd in 1953 report.) Feb. 2, 6.45; Aug. 5, 6.91; Oct. 12. 6.91

4-4-20bb. Feb. 2, 9.29; Aug. 5, 8.89; Oct. 12, 8.69

4-4-21aa. Feb. 2, 16.94; Aug. 5, 17.40; Oct. 12, 17.35

4-4-21bb. Feb. 2, 7.84; Aug. 5, 8.24; Oct. 12, 8.32

*4-4-28cc. (Dropped from program in 1953; restored in 1954.) Aug. 5, 7.99; Oct. 12, 8.17

4-4-29cb. Feb. 2, 17.84; Aug. 5, 19.05; Oct. 12, 18.84

4-4-32cd. Feb. 2, 22.31; Aug. 5, 23.42; Oct. 12, 22.50

4-5-1ac. Feb. 2, 33.74; Aug. 5, 34.02; Oct. 12, 34.09

5-3-19bb. Feb. 2, 20.93; Aug. 5, 21.00; Oct. 12, 21.33

5-3-20aa. Feb. 2, 16.06; Aug. 5, 16.24; Oct. 12, 16.36

5-3-20dd. Feb. 2, 10.95; Aug. 5, 11.19; Oct. 12, 11.22

5-3-23cb. Feb. 2, 9.22; Aug. 5, 8.72; Oct. 12, 8.11

5-3-24cb. Feb. 2, 6.10; Aug. 5, 6.25; Oct. 12, 6.35

5-3-29dd. Feb. 2, 14.80; Aug. 5, 17.38; Oct. 12, 17.14

5-3-31bc. Feb. 2, 22.77; Aug. 5, 22.91; Oct. 12, 23.19

5-4-8dd. Feb. 2, 15.28; Aug. 5, 16.74; Oct. 12, 15.99

5-4-9aa. Feb. 2, 3.95; Aug. 5, 5.40; Oct. 12, 5.06

5-4-11dd. Feb. 2, 20.69; Aug. 5, 20.87; Oct. 12, 20.92

5-4-14bc. Feb. 2, 7.78; Aug. 5, 8.33; Oct. 12, 8.36

5-4-15aa. Feb. 2, 12.53; Aug. 5, 13.33; Oct. 12, 13.12

CEDAR BLUFF UNIT

Table 6.--Water-level measurements, in feet below land-surface datum, in the Cedar Bluff unit, 1954.

[Asterisk (*) indicates well added to program in 1954.]

14-16-17cb. Apr. 16, 19.37

14-16-36bc. Apr. 16, 19.40

14-18-12bb. Apr. 17, 21.67

14-18-26aa. Apr. 17, 20.23

14-19-31cc. Apr. 17, 31.44

14-20-31cc. Measurement discontinued

14-20-32dd. Apr. 17, 23.03

14-20-35cc. Measurements discontinued

14-21-30cd. No measurements in 1954

14-21-33bb. Apr. 17, 15.53

14-22-36aa. Apr. 17, 29.08

14-22-36ada. Apr. 17, 7.07

*14-22-36da. (Dropped from program in 1953; restored in 1954.) Apr. 17, 10.10

15-16-6dd. Apr. 16, 22.10

15-16-13bb. Apr. 16, 14.49

15-18-1bb. Apr. 17, 19.67

15-18-16bb. Apr. 16, 9.66

15-18-27cb. Apr. 17, 10.62

15-19-4da. No measurements in 1954

15-19-6aa. Apr. 17, 55.24

15-19-7bc. No measurements in 1954

Table 6.--Water-level measurements in feet below land-surface datum, in the Cedar Bluff unit, 1954.

15-19-8bbb. No measurements in 1954

15-19-9bbb. No measurements in 1954

15-19-9cc. Apr. 17, 35.18

15-19-10ab. No measurements in 1954

15-19-13ab. No measurements in 1954

15-19-15bc. Measurements discontinued

15-19-15dd. Apr. 17, 25.10

15-19-16cb. No measurements in 1954

15-19-24bc. No measurements in 1954

15-19-24cd. No measurements in 1954

15-19-25aa. No measurements in 1954

15-20-1bbb. No measurements in 1954

15-20-2da. No measurements in 1954

15-20-4ccb. No measurements in 1954

15-20-4ccc. No measurements in 1954

15-20-12aa. Apr. 17, 38.21

15-22-1ab. No measurements in 1954

GLEN ELDER UNIT

Table 7.--Water-level measurements, in feet below land-surface datum, in the Glen Elder unit, 1954.

6-8-34cc. Apr. 5, 17.09; July 23, 17.37; Dec. 13, 17.39

6-9-27ab. Apr. 5, 24.20; July 23, 23.82; Dec. 13, 25.97

6-9-30da. Apr. 5, 29.59; July 23, 29.50; Dec. 13, 30.49

7-6-34cb. Apr. 5, 28.19; July 23, 27.63; Dec. 13, 28.90

7-7-7aa. Apr. 5, 26.97; July 23, 27.35; Dec. 13, 28.08

7-7-15dc. Apr. 5, 21.28; July 23, 21.25; Dec. 13, 22.73

7-8-5cb. Apr. 5, 28.23; Dec. 13, 28.68

KANOPOLIS UNIT

Table 8.--Water-level measurements, in feet below land-surface datum, for 13 wells; made in 1946 but unlisted in previous reports.

15-2-17cd.

Date	Water level	Date	Water level	Date	Water level
Mar. 28	23.73	Sept. 5	24.49	Dec. 2	22.72
July 3	24.56	Oct. 1	23.92	Dec. 23	23.08
Aug. 1	24.75	Nov. 4	22.79		

15-2-18cd.

Date	Water level	Date	Water level	Date	Water level
Mar. 29	24.12	Sept. 5	24.98	Dec. 2	22.92
July 3	24.73	Oct. 1	24.25	Dec. 23	23.27
Aug. 1	24.82	Nov. 4	22.90		

15-2-30dc.

Date	Water level	Date	Water level	Date	Water level
Mar. 27	21.38	Sept. 5	22.42	Dec. 2	20.96
July 3	22.05	Oct. 1	21.89	Dec. 23	21.21
Aug. 1	22.35	Nov. 4	20.99		

Table 8.--Water-level measurements, in feet below land-surface datum, for 13 wells; made in 1946 but unlisted in previous reports--Continued

15-3-24dd.

Date	Water level	Date	Water level	Date	Water level
Mar. 27	18.90	Sept. 5	19.75	Dec. 2	19.19
July 3	19.48	Oct. 1	20.50	Dec. 23	19.28
Aug. 1	19.88	Nov. 4	19.76		

15-3-36ab.

Date	Water level	Date	Water level	Date	Water level
Mar. 26	25.30	Sept. 5	27.16	Dec. 2	26.62
July 3	26.70	Oct. 1	26.96	Dec. 23	26.64
Aug. 1	27.12	Nov. 4	26.81		

16-2-7bb.

Date	Water level	Date	Water level	Date	Water level
Mar. 21	20.20	Sept. 5	21.25	Dec. 2	19.97
July 3	20.84	Oct. 1	20.84	Dec. 23	20.09
Aug. 1	22.08	Nov. 4	20.22		

16-2-18cc.

Date	Water level	Date	Water level	Date	Water level
Mar. 21	25.80	Sept. 5	26.35	Dec. 2	23.74
July 3	26.30	Oct. 1	25.32	Dec. 23	24.36
Aug. 1	26.18	Nov. 4	23.39		

16-3-13cd.

Date	Water level	Date	Water level	Date	Water level
Apr. 1	20.70	Sept. 5	24.33	Dec. 2	22.77
July 3	23.96	Oct. 1	23.92	Dec. 23	22.78
Aug. 1	24.17	Nov. 4	23.14		

16-3-26dc.

Date	Water level	Date	Water level	Date	Water level
Apr. 9	20.60	Sept. 5	21.39	Dec. 2	19.00
July 3	21.13	Oct. 1	20.57	Dec. 23	19.35
Aug. 1	21.27	Nov. 4	19.06		

Table 8.--Water-level measurements, in feet below land-surface datum, for 13 wells; made in 1946 but unlisted in previous reports--Continued

17-3-17dd.

Date	Water level	Date	Water level	Date	Water level
Apr. 17	26.96	Sept. 5	27.86	Dec. 2	26.28
July 3	27.34	Oct. 1	27.38	Dec. 23	26.50
Aug. 1	27.57	Nov. 4	26.24		

17-3-18dd.

Date	Water level	Date	Water level	Date	Water level
Apr. 19	27.44	Sept. 5	28.37	Dec. 2	26.97
July 3	27.98	Oct. 1	28.04	Dec. 23	27.07
Aug. 1	27.29	Nov. 4	27.22		

17-3-30dd.

Date	Water level	Date	Water level	Date	Water level
Apr. 23	30.53	Sept. 5	31.23	Dec. 2	29.40
July 3	30.94	Oct. 1	30.69	Dec. 23	29.63
Aug. 1	31.05	Nov. 4	29.50		

17-4-25dd.

Date	Water level	Date	Water level	Date	Water level
Apr. 23	24.30	Sept. 5	25.49	Dec. 2	24.74
July 3	24.96	Oct. 1	25.34	Dec. 23	24.82
Aug. 1	25.30	Nov. 4	24.82		

KANOPOLIS UNIT

Table 9.--Water-level measurements, in feet below land-surface datum, in Kanopolis unit, 1954.

14-2-19dc. No measurements in 1954

14-2-30cd. No measurements in 1954

14-2-31ccc. No measurements in 1954

14-3-25ad. No measurements in 1954

Table 9.--Water-level measurements, in feet below land-surface datum, in the Kanopolis unit, 1954--Continued

15-2-6aa. No measurements in 1954

15-2-6dd. No measurements in 1954

15-2-17cd. Apr. 19, 26.00

15-2-18cd. Apr. 19, 25.35

15-2-19bb. No measurements in 1954

15-2-30ccc. No measurements in 1954

15-2-30dc. No measurements in 1954

15-2-31ccc. No measurements in 1954

15-2-32baa. No measurements in 1954

15-3-1cc. No measurements in 1954

15-3-12ab. No measurements in 1954

15-3-12dd. No measurements in 1954

15-3-13ccc. Apr. 19, 23.35

15-3-24dd. No measurements in 1954

15-3-25ccd. No measurements in 1954

15-3-36ab. No measurements in 1954

16-2-7bb. No measurements in 1954

16-2-8ccc. Apr. 19, 23.38

16-2-18cc. No measurements in 1954

16-3-12bcb. No measurements in 1954

16-3-13aaa. Apr. 19, 22.08

16-3-13cd. No measurements in 1954

16-3-24ddd. Measurements discontinued

16-3-26dc. Apr. 19, 21.73

Table 9.--Water-level measurements, in feet below land-surface datum, in the Kanopolis unit, 1954--Continued

16-3-33ddd. No measurements in 1954

16-6-35bdd. Apr. 18, 20.42

17-3-3ddd. Measurements discontinued

17-3-4bbb No measurements in 1954

17-3-9bcc. No measurements in 1954

17-3-10bbb. No measurements in 1954

17-3-17dd. No measurements in 1954

17-3-18dd. Apr. 19, 27.89

17-3-19ddd. Apr. 19, 24.20

17-3-30dd. Apr. 19, 30.98

17-4-20ddd. Apr. 19, 11.68

17-4-25dd. No measurements in 1954

17-4-26ddd. No measurements in 1954

17-4-29ccc. No measurements in 1954

17-4-31baa. No measurements in 1954

17-4-32baa. No measurements in 1954

17-4-34add. No measurements in 1954

17-4-36abb. No measurements in 1954

17-5-5cdd. Measurements discontinued

17-5-7add. No measurements in 1954

17-5-7bbb. No measurements in 1954

17-5-8ccc. No measurements in 1954

17-5-8ddd. No measurements in 1954

Table 9.--Water-level measurements, in feet below land-surface datum, in the Kanopolis unit, 1954--Continued

17-5-11bbb. No measurements in 1954

17-5-16aaa. No measurements in 1954

17-5-23ccc. No measurements in 1954

17-5-25aaa. No measurements in 1954

17-5-26ddd. Apr. 18, 20.54

17-6-13aa. Apr. 18, 22.98

KIRWIN UNIT

Table 10.--Water-level measurements, in feet below land-surface datum, in the Kirwin unit, 1954.

[Asterisk (*) indicates well added to program in 1954.]

4-14-34bc. Apr. 7, 41.65; Dec. 14, 42.08

4-14-34da. Apr. 7, 19.90; July 25, 20.65; Dec. 14, 22.55

4-14-34dd. Apr. 7, 27.80; July 25, 28.52; Dec. 14, 28.85

4-15-31bb. Apr. 7, 32.35; July 25, 32.05; Dec. 14, 32.49

4-15-31cb. Apr. 7, 14.63; July 25, 14.20; Dec. 14, 14.48

4-15-34bb. Measurements discontinued

4-16-25cc. Measurements discontinued

4-16-34bb. Apr. 7, 30.00; July 25, 30.10; Dec. 14, 29.80

4-16-36aa. Apr. 7, 25.81; July 25, 27.26; Dec. 14, 27.24

4-16-36ad. Apr. 7, 25.30; July 25, 25.03; Dec. 14, 26.30

4-17-31bc. Measurements discontinued

4-18-30ab. No measurements in 1954

Table 10.--Water-level measurements, in feet below land-surface datum, in the Kirwin unit, 1954--Continued

4-19-35ab. July 24, 10.65; Dec. 14, 12.19

4-20-21cc. Apr. 6, 47.80; July 24, 47.91; Dec. 14, 47.98

5-12-31cb. Apr. 7, 11.03; July 25, 11.00; Dec. 14, 11.42

5-13-4dc. Apr. 7, 17.98; July 25, 18.33; Dec. 14, 19.83

5-13-21cc. Apr. 7, 26.93; July 25, 27.08; Dec. 14, 27.30

5-13-22bb. Apr. 7, 9.89; July 25, 10.08; Dec. 14, 10.60

5-13-25dd. Apr. 7, 22.36; July 25, 23.16; Dec. 14, 24.05

5-13-28cb. Apr. 7, 24.33

5-13-33ba. Apr. 7, 21.39; July 25, 22.00; Dec. 14, 22.67

5-13-34bb. Apr. 7, 24.23; July 25, 24.20; Dec. 14, 24.19

5-13-34cc. Apr. 7, 18.76; July 25, 19.43; Dec. 14, 20.10

5-13-35ad. Apr. 7, 21.61; July 25, 21.85; Dec. 14, 22.09

5-13-36ad. Apr. 7, 11.68; July 25, 12.07; Dec. 14, 12.61

5-14-1da. Apr. 7, 25.15; July 25, 25.59; Dec. 14, 25.75

5-14-2ab. Apr. 7, 18.70; July 25, 19.14; Dec. 14, 19.72

5-14-2ac. Apr. 7, 16.19; July 25, 16.22; Dec. 14, 16.62

5-14-2ba. Apr. 7, 20.60; July 25, 21.10; Dec. 14, 21.60

5-14-12aa. Apr. 7, 27.45; July 25, 27.69; Dec. 14, 27.88

5-14-12da. Apr. 7, 28.21; July 25, 28.42; Dec. 14, 28.69

5-15-2dc. Apr. 7, 28.77; July 25, 29.48; Dec. 14, 30.08

*5-17-12aa. (Well dropped from program in 1953; restored in 1954.) Apr. 7, 49.38

6-11-34aa. Apr. 5, 33.93; July 25, 34.30; Dec. 14, 34.58

6-12-7bb. Apr. 7, 32.28; July 25, 32.18; Dec. 14, 32.15

Table 10.--Water-level measurements, in feet below land-surface datum, in the Kirwin unit, 1954--Continued

6-12-7cc. Apr. 7, 43.74; July 25, 43.78; Dec. 14, 43.90

6-12-7dc. Apr. 7, 22.70; July 25, 22.97; Dec. 14, 23.46

6-12-23cd. Apr. 5, 22.29; July 25, 22.75; Dec. 14, 23.10

6-13-2da. Apr. 7, 26.59; July 25, 26.80; Dec. 14, 27.10

6-13-2dd. Apr. 7, 31.22; July 25, 31.60; Dec. 14, 31.92

6-13-12ba. Apr. 7, 24.03

ST. FRANCIS UNIT

Table 11.--Water-level measurements, in feet below land-surface datum, in the St. Francis unit, 1954.

[Asterisk (*) indicates well added to program in 1954.]

1-38-2cdc. (Formerly listed as 1-38-1cd.) Feb. 1, 23.10; Aug. 5, 22.83; Nov. 11, 24.15

1-38-8dd.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	13.10	Aug. 30	14.80	Nov. 11	14.15
May 13	13.04				

1-38-17cd.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	12.27	Aug. 30	13.31	Nov. 11	13.45
May 13	12.22				

2-39-10bb. Feb. 1, 27.30; May 13, 27.91

2-39-17ba. No measurements in 1954

2-39-19cc. Feb. 1, 16.15

Table 11.--Water-level measurements, in feet below land-surface datum, in the St. Francis unit, 1954--Continued

2-39-27bb.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	18.88	Aug. 30	19.27	Nov. 11	19.04
May 13	18.71				

3-40-9ba.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	20.65	Aug. 30	21.11	Nov. 11	20.95
May 13	20.65				

3-40-22ab.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	14.82	Aug. 30	15.56	Nov. 11	15.50
May 13	14.22				

3-40-28bd.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	11.04	Aug. 30	12.56	Nov. 11	12.30
May 13	10.70				

3-40-33dd.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	13.45	Aug. 30	13.73	Nov. 11	13.80
May 13	13.41				

3-41-13cc.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	10.30	Aug. 30	10.10	Nov. 11	12.02
May 13	11.46				

3-42-21bc.

Date	Water level	Date	Water level	Date	Water level
Feb. 2	201.70	Aug. 30	201.47	Nov. 11	201.50
May 13	201.49				

Table 11.--Water-level measurements, in feet below land-surface datum, in the St. Francis unit, 1954--Continued

3-42-22dad.

Date	Water level	Date	Water level	Date	Water level
Feb. 2	138.00	Aug. 30	138.23	Nov. 11	138.30
May 13	138.20				

3-42-26cad. Feb. 2, 176.20; May 13, 176.45; Aug. 30, 175.70

3-42-28dda. May 13, 151.10; Aug. 30, 151.30

4-41-2aa.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	25.68	Aug. 30	27.91	Nov. 11	26.99
May 13	25.69				

4-41-32dd. Feb. 2, 112.90; May 13, 112.90; Aug. 30, 113.05

4-42-2ccc.

Date	Water level	Date	Water level	Date	Water level
Feb. 2	177.23	Aug. 30	177.25	Nov. 11	177.30
May 13	177.00				

4-42-5aaa. May 13, 191.00; Nov. 11, 191.20

4-42-24ca. Feb. 1, 25.01; May 13, 25.05

*4-42-26bcb. Feb. 1, 22.51; May 13, 21.58; Nov. 11, 22.65

5-42-4aac.

Date	Water level	Date	Water level	Date	Water level
Feb. 2	22.84	Aug. 30	24.01	Nov. 11	23.85
May 13	22.86				

WEBSTER UNIT

Table 12.--Water-level measurements, in feet below land-surface datum, in Webster unit, 1954.

7-11-26aa. (Formerly listed as 7-11-23dd.) Measurements discontinued.

7-12-28ab. Apr. 5, 32.51; July 23, 32.52; Dec. 13, 32.27

7-13-15da. Apr. 5, 38.25; July 24, 38.25; Dec. 13, 39.64

7-14-6cb. Apr. 5, 22.94; July 24, 23.13

7-14-10dd. Apr. 5, 30.30; Dec. 13, 30.90

7-15-8cc. Apr. 5, 22.18; July 24, 22.46; Dec. 13, 22.50

7-15-12dc. Apr. 5, 19.96; July 24, 14.68; Dec. 13, 16.93

WILSON UNIT

Table 13.--Water-level measurements, in feet below land-surface datum, in the Wilson unit, 1954.

12-6-12cd. Measurements discontinued

12-7-18aa. Apr. 16, 22.15

12-7-19dd. Apr. 16, 11.78

12-7-23aa. Apr. 16, 11.60

12-7-34ad. Apr. 16, 48.74

12-8-6aa. Apr. 16, 8.75

12-8-8cd. Apr. 16, 15.12

12-8-11cb. Apr. 16, 19.86

12-10-8bb. Apr. 16, 15.10

12-10-13aa. Apr. 16, 23.45

12-10-21dd. Apr. 16, 25.99