

KINNEY COUNTY, TEXAS

Records of wells, driller's logs,
water analyses, and map
showing location of wells.

TEXAS STATE BOARD OF WATER ENGINEERS

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Prepared in cooperation with the United States
Department of the Interior, Geological Survey

KINNEY COUNTY, TEXAS

Introduction

By

Robert R. Bennett
Assistant Geologist

This release contains records of 265 wells and springs in Kinney County, Texas, together with well logs and a table of chemical analyses of water from many representative wells and springs. It also includes a map of the county showing the locations of the wells and springs. The information comprises a part of the results of an investigation of the geology and ground-water resources of the county made by the United States Department of the Interior, Geological Survey, in cooperation with the Texas State Board of Water Engineers during parts of the years 1937 to 1939, inclusive. The well records were obtained by Robert R. Bennett, of the Geological Survey, and G. H. Cromack, of the engineering force of the Texas State Board of Water Engineers. The water samples were analyzed at Austin, Texas, by E. W. Lohr of the Geological Survey.

In Kinney County, ground water acceptable for domestic purposes and stock occurs in several formations of which the Edwards limestone of Lower Cretaceous age is the most important. Most of the wells in the northern half of the county obtain water from the Edwards. In the southern half of the county, most of the wells draw water from other limestone formations, although a few obtain an adequate supply from gravel deposits. Much of the southern part of the county, however, is underlain by rocks that yield very little or no potable water.

The wells are used for domestic purposes and stock. A few are used for irrigation. Las Moras Spring (number 147) furnishes water to the City of Brackettville and to Fort Clark. Mud Springs (number 84), and Pinto Springs (number 71) are used for irrigation.

Water-level measurements have been made approximately once a month on several water wells in the county since August 1937, and the discharge of Las Moras, Mud, and Pinto Springs has been measured several times a year since the fall of 1938. The records show that, in general, the water levels in the wells and the discharge of the springs fluctuate with the precipitation. The water levels decline slowly and the discharge of the springs decreases gradually during periods of low precipitation. The water levels rise and the spring discharge increases after heavy rains.

It is expected that the records in this release will be of assistance to land owners and others who need information regarding wells in different parts of the county and the quantity and quality of water yielded by the wells.

A detailed report on the geology and ground-water hydrology of the County will be released later.

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Records of wells in Kinney County, Texas

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
1	23½ miles northwest	Sam Armstead	--	Old	500	6	Limestone
2	20½ miles northwest	Billie C. Lewis	--	--	270	6	do.
3	21½ miles northwest	H. B. Horn	--	--	--	6	do.
4	20 miles northwest	do.	--	--	--	6	do.
5	19¼ miles northwest	R. M. Hamilton	--	Old	300	6	do.
e/ 6	21 miles north	C. D. Covington	Sam Mills	1929	360	--	do.
7	21½ miles north	do.	-- Jackson	1927	160	6	do.
8	15½ miles north	A. M. Slator	--	Old	400+	6	do.
9	15 miles north	do.	--	1931 ?	525	6	do.
e/ 10	17-3/4 miles north	R. C. Delong	--	Old	--	6	do.
11	18 miles north	do.	Fred Hull	1930	101	6	Gravel
12	15½ miles north	O. R. Davis	--	Old	--	6	Limestone
13	20½ miles north	R. C. Delong	Fred Hull	1930	298	6	do.
14	22½ miles north	Fred Hull	do.	1930	163	--	do.
15	15½ miles northeast	O. R. Davis	--	1923	50	6	do.
16	15 miles northeast	do.	--	1923	500	--	do.
17	do.	Dave Rose, Sr.	Dave Rose, Sr.	Old	62	42	Gravel
e/ 18	16 miles northeast	do.	do.	Old	45	--	do.
e/ 19	16½ miles northeast	do.	--	1930	160	6	Limestone
20	17½ miles northeast	Charles Schwandner	Charles Schwandner	1899+	48½	36	Gravel
21	18½ miles northeast	Arthur Schwandner	Arthur Schwandner	--	30	48	do.
22	19 miles northeast	Henry Schwandner	--	--	Spring	--	Limestone

a/ Measuring point was usually top of casing, pump base, curb or water pipe clamp.

b/ C, cylinder; Cf, centrifugal; B, bucket; W, windmill; H, hand; E, electric.

(All wells are drilled unless otherwise stated under "Remarks")

No.	Measuring point		Water level		Method of lift <u>b/</u>	Use of water <u>c/</u>	Remarks
	Height above ground level (feet) <u>a/</u>	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
1	--	--	275 <u>d/</u>		W,C	D,S	
2	0.7	--	207±	Feb. 25, 1939	W,C	S	
3	1.1	--	127.45	do.	W,C	S	
4	1.0	--	100+	Feb. 21, 1939	W,G,C	D,S	
5	--	--	225 <u>d/</u>		W,C	D,S	
6	--	--	--	--	W,C	S	
7	0.8	--	107.4	Oct. 18, 1938	G,C	D,S	Reported diameter of cylinder 2½ inches.
8	--	--	300 <u>d/</u>		W,C	S	
9	0.3	--	187.3	Jan. 25, 1939	W,C	D	
10	--	--	--	--	W,C	D,S	
11	0.7	--	65.90	Nov. 14, 1939	W,C	S	Driller reports he bailed well at 20 gallons a minute without noticeably lowering water
12	0.0	--	259.90	Feb. 3, 1939	W,C	S	Reported to contain level. 320 feet of discharge pipe.
13	--	--	--	--	W,C	S	
14	--	--	140 <u>d/</u>		W,C	--	
15	0.6	--	34.10	Mar. 27, 1939	W,C	D,S	Well is near West Nueces River. Reported river does not affect
16	--	--	90 <u>d/</u>		--	N	Reported water level in well. yield 100 gallons a minute. Well now covered with gravel.
17	0.6	--	43.81	Feb. 4, 1939	W,C	S	Dug well, reported dry during droughts.
18	1.1	--	31.18	do.	W,C	S	Dug well. Water reported in gravel overlying clay.
19	0.3	--	99.20	do.	W,G,C	S	Temperature 71° F.
20	2.0	--	43.30	Feb. 18, 1939	W,C	D,S	Dug well in West Nueces River valley.
21	1.5	--	29.30	do.	W,C	D	Dug well about 50 feet from flowing stream.
22	--	--	--	--	--	--	Flow reported permanent. Flow was 2.75 second-feet on January 26, 1940.

c/ I, irrigation; P, public supply; D, domestic; S, stock; N, not used.

d/ Reported by driller or owner.

e/ For analysis of water see table on pp. 33-37.

f/ Number assigned to well in published records of water-level measurements.

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
23	19 miles northeast	T. C. Wadsworth	--	1935	480	8	Limestone and shale
e/ 24	do.	do.	-- Cashell	Old	100	6	Limestone
25	22½ miles northeast	F. O. Edwards	--	Old	250+	8	do.
e/ 26	19-¾ miles northeast	do.	T. J. Hiney	1938	200	6	do.
27	20 miles northeast	-- Wallace	--	1890	25	48	Gravel
28	19¼ miles northeast	do.	--	Old	120	5- 3/16	Limestone
29	19-¾ miles east	G. R. Herndon	--	Old	200	6	do.
30	19 miles east	do.	--	--	--	6	do.
31	17-¾ miles east	do.	--	Old	150	6	do.
32	14½ miles east	B. B. Dunbar	T. J. Hiney	1938	351	--	do.
e/ 33	16-¾ miles northeast	Foster Drewitt	--	Old	275	5	do.
34	17 miles northeast	C. C. Veltman	--	--	--	6	do.
35	18 miles northeast	O. B. Wood	-- Jackson	Old	120+	6	do.
36	17-¾ miles northeast	Aciel Chapman	--	--	83	6	--
e/ 37	15¼ miles northeast	Nolan & Postell	Pete Halbert	1907	455	6	Limestone
38	14½ miles northeast	do.	-- Shipman	1926	765	6 & 7	do.
e/ 39	13½ miles northeast	do.	Tom Salmon	1904	410	4	do.
e/ 40	12½ miles northeast	N. P. Petersen	--	1923	--	6	do.
e/ 41	9½ miles northeast	do.	O. J. Woodhull	Old	475	6	do.
42	10-¾ miles northeast	do.	-- Jackson	1923	350	5- 3/16	do.
e/ 43	11½ miles northeast	do.	-- Cunningham	1913	380	6	do.
e/ 44	11 miles northeast	do.	-- Ott	1893	360	6	do.
45	13½ miles northeast	do.	-- Roberts	1938	455	5- 3/16	do.
e/ 46	13 miles northeast	do.	Pete Halbert	1913	342	6	do.
e/ 47	12-¾ miles northeast	do.	-- Ott	1899	365	6	do.

(All wells are drilled unless otherwise stated under "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet)a/	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
23	--	--	150d/	--	W,C	S	Plugged back to within 180 feet of top. Water too highly mineralized for human consumption.
24	1.8	--	64.73	Feb. 20, 1939	W,C	S	
25	1.0	--	34.42	Oct. 19, 1938	W,C	D,S	
26	0.2	--	145.80	Feb. 9, 1939	W,C	S	Water at 180 feet, blue clay at 185 feet.
27	1.0	--	24.50	Feb. 16, 1939	W,C	D	Dry during droughts.
28	2.0	--	105.03+	Jan. 31, 1940	W,C	S	
29	--	--	60d/	--	W,C	S	In Uvalde County
30	--	--	50 to 60d/	--	W,C	S	
31	--	--	111.90	Feb. 27, 1939	G,C	S	
32	--	--	207d/	July --, 1938	W,C	S	Reported to have been bailed at 25 gallons a minute without lowering water level
33	--	--	200d/	--	W,G,C	D,S	noticeably.
34	0.8	--	42.18+	Feb. 27, 1939	W,C	S	Water level measured while well was pumping.
35	2.5	--	79.50	Aug. 31, 1939	W,C	D,S	
36	1.0	--	54.21	Feb. 25, 1939	W,C	D,S	Well in West Nueces River valley.
37	2.4	--	207.60	June 14, 1938	W,C	S	
38	0.7	--	167.67	do.	W,C	S	
39	--	--	196d/	--	W,C	S	
40	0.6	--	230.56	June 16, 1938	W,C	S	
41	0.4	1,320	178.13	June 15, 1938	W,G,C	D,S	After pumping has ceased water level recovers relatively slowly. XK-180 f/
42	0.6	--	176.33	June 16, 1938	W,C	S	
43	1.5	1,367	176.37	June 13, 1938	W,C	S	
44	1.6	1,354	168.59	June 14, 1938	W,G,C	D,S	XK-172 f/
45	1.4	1,410	192.63	Jan. 27, 1940	W,C	S	
46	1.0	1,408	191.25	do.	W,C	S	
47	0.8	--	194.98	June 13, 1938	W,C	S	

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
48	13 miles northeast	O. R. Davis	--	1923	210	6	Limestone
49	10 $\frac{1}{4}$ miles northeast	Nolan & Postell	Pete Halbert	1906	395	6	do.
e/50	9 $\frac{1}{2}$ miles northeast	N. P. Petersen	-- Jackson	1932	533	6	do.
e/51	9 miles northeast	do.	do.	1925	432	6	do.
e/52	8 $\frac{1}{2}$ miles northeast	do.	do.	1920	490	5- 3/16	do.
53	6 $\frac{1}{2}$ miles northeast	E. Webb	--	1939	--	6	do.
e/54	7 miles north	do.	--	1914	--	6 $\frac{1}{2}$	do.
e/55	10 $\frac{1}{2}$ miles northeast	do.	--	--	--	6	do.
57	13 $\frac{1}{2}$ miles north	O. R. Davis	--	Old	--	--	do.
58	12 $\frac{1}{2}$ miles north	J. D. Harwood	Joe York	1930	300	--	do.
59	10 $\frac{1}{2}$ miles north	do.	do.	1933	250	--	do.
e/60	7 miles north	E. Webb	--	1910	--	8 $\frac{1}{4}$	do.
e/61	5 $\frac{1}{2}$ miles north	do.	--	--	--	5- 3/16	do.
e/62	7 $\frac{1}{2}$ miles north	do.	--	--	--	5- 3/16	do.
e/63	9-3/4 miles north	J. D. Harwood	--	Old	--	5- 3/16	do.
64	11 miles north	do.	Sam Bunting	1910	270	--	do.
e/65	12 $\frac{1}{2}$ miles north	S. M. Harwood	--	Old	--	6 $\frac{1}{4}$	do.
e/66	11 $\frac{1}{2}$ miles north	J. D. Harwood	--	1907	269	6 $\frac{1}{4}$	do.
e/67	10 $\frac{1}{2}$ miles north	S. M. Harwood	Lon York	1935	235	6 $\frac{1}{4}$	do.
e/68	11 $\frac{1}{4}$ miles north	do.	Pete Halbert	1913	259	6 $\frac{1}{4}$	do.
e/69	9 $\frac{1}{4}$ miles north	J. D. Harwood	Lon York	1932	300	5- 3/16	do.
e/70	8 $\frac{1}{2}$ miles north	W. C. Belcher	--	Old	165+	6	do.
e/71	7 miles north	do.	--	--	--	--	do.

(All wells are drilled unless otherwise stated under "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet) a/	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
48	0.5	--	160.92	Feb. 15, 1939	W,C	S	
49	--	--	203d/	--	W,C	S	Reported to be cased from 136 to 196 feet.
50	--	1,455	288d/	--	W,C	S	
51	0.6	--	256.42	June 15, 1938	W,C	D,S	"Blowing" well.
52	1.0	--	225.81	do.	W,C	S	
53	1.0	--	147.77	Jan. 10, 1940	W,C	S	
54	1.0	--	188.08	Apr. 13, 1938	W,C	S	XK-112 f/
55	2.7	--	125.35	Mar. 27, 1939	W,C	S	Measured depth 146 feet.
57	0.3	--	322.5	Feb. 15, 1939	W,C	S	Reported to be 360 feet of discharge pipe in well.
58	--	--	--	--	W,C	S	Water too highly mineralized for human consumption.
59	--	--	--	--	W,C	S	
60	2.9	--	124.9 ⁺	Feb. 22, 1939	W,C	D,S	
61	3.5	1,232	37.24	Apr. 13, 1938	W,C	S	
62	1.3	1,256	64.21	do.	W,C	D,S	XK-114 f/
63	0.3	1,359	112.85	do.	W,C	S	XK-116 f/
64	--	--	--	--	W,C	D,S	
65	0.7	--	148.91	Apr. 14, 1938	W,C	D,S	
66	0.7	--	166.84	do.	W,C	D,S	
67	--	--	--	--	W,C	S	Reported to have yielded 8 to 10 gallons a minute.
68	1.0	--	170.23	Apr. 14, 1938	W,C	S	Reported to have yielded 10 to 20 gallons a minute.
69	1.6	--	99.58	do.	W,C	S	Reported that clay occurs at 150 feet.
70	0.7	--	37.55	Feb. 15, 1939	W,C	S	
71	Spring	--	--	--	--	I	Pinto Springs--Smallest discharge measured during 1939 was 0.70 cubic feet a second. Largest discharge measured during 1939 was 8.83 cubic feet a second.

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
e/ 72	7 miles northwest	W. C. Belcher	--	1929 or 1930	115+	6	Limestone
e/ 73	9 miles northwest	do.	--	Old	--	6	do.
74	9 $\frac{1}{4}$ miles northwest	do.	--	1929 or 1930	150+	4	do.
75	12 $\frac{1}{2}$ miles northwest	do.	--	--	--	6	do.
76	13 $\frac{1}{2}$ miles northwest	Edward Mey	Tom Crawford	1938	365	6 $\frac{1}{4}$	do.
e/ 77	15 $\frac{1}{2}$ miles northwest	do.	do.	1938	355	8	do.
78	14 miles northwest	do.	--	1908	300	6 $\frac{1}{2}$	do.
e/ 79	12 miles northwest	J. W. Forester	Tom Crawford	1936	210	8	do.
e/ 80	11 $\frac{1}{2}$ miles northwest	do.	--	Old	100+	8 $\frac{1}{4}$	--
81	11 $\frac{1}{2}$ miles northwest	J. F. Beidler	--	1938	275+	6	Limestone and shale
82	12 $\frac{1}{2}$ miles northwest	do.	--	1922	109	--	do.
83	13 miles northwest	Ernest Yoas	--	Old	400	6 $\frac{1}{2}$	Limestone
e/ 84	15 $\frac{1}{2}$ miles northwest	Edward Mey	--	--	Spring	--	do.
85	17 miles northwest	do.	--	1908	300+	6 $\frac{1}{2}$	do.
86	18 miles northwest	Prosser & Walker	--	Old	--	6	do.
e/ 87	19 $\frac{1}{2}$ miles northwest	do.	Havoline Oil Co.	1921	--	--	do.
e/ 88	18 miles northwest	R. A. Weathersbee	--	1909	350	6	do.
89	17 $\frac{1}{2}$ miles northwest	Mac L. Weathersbee	--	1910	350	6 $\frac{1}{4}$	do.
e/ 90	17 $\frac{1}{2}$ miles west	do.	--	1917	430	5 - 3/16	do.

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet)a/	Elevation above sea level	Below measuring point (feet)	Date of measurement			
72	1.0	--	25.24	Feb. 15, 1939	G,C	D,S	
73	0.9	--	55.98	do.	W,C	S	
74	0.7	--	52.85	do.	W,C	S	
75	0.8	--	65.44	Oct. 4, 1939	W,C	S	
76	1.0	--	78.83	Apr. 23, 1938	W,C	S	Reported to be cased to depth of 78 feet.
77	1.0	--	103.44	do.	W,C	S	
78	0.9	1,247	69.89	do.	W,C	D,S	XK-163 f/
79	1.4	--	32.73	Apr. 22, 1938	W,C	S	Water reported in blue clay. Water has hydrogen sulphide
80	0.7	--	17.37	do.	W,C	D,S	Water has hydrogen sulphide odor.
81	1.0	--	153.25	Oct. 20, 1938	W,C	S	Well was originally 175 feet deep, but during the winter of 1938, water level declined so that the well was inadequate for stock use. It was drilled about 100 feet deeper and the well now furnishes ample supply for stock use.
82	--	--	--	--	W,C	S	
83	1.7	1,176	64.78	Apr. 22, 1938	G,C	S	Water has hydrogen sulphide odor. Water reported to have been encountered 350 feet and rose to within 15 feet of top
84	--	1,170	--	--	--	I	Mud Springs, land surface. Smallest discharge measured during 1939 was 1.84 cubic feet a second. Largest discharge measured during 1939 was 7.58 cubic feet a second.
85	--	--	59.37	June 11, 1938	W,C	S	
86	1.0	--	95.50	Feb. 21, 1939	W,C	S	
87	0.8	--	107.50	do.	W,C	D,S	Was originally drilled as an oil test, later plugged back unknown distance and now is being used as a water well.
88	0.5	--	66.41	Apr. 20, 1938	W,C	D,S	See log.
89	0.9	--	49.92	do.	W,C	S	
90	0.5	1,104	63.93	Aug. 20, 1937	W,C	D,S	Water has hydrogen sulphide odor. XK-13 f/

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
91	16 $\frac{1}{2}$ miles west	-- Cupples	--	Old	--	6 $\frac{1}{2}$	--
92	15 $\frac{1}{2}$ miles west	J. F. Beidler	--	Old	--	5- 3/16	--
e/ 93	15-3/4 miles west	F. W. Herbst	--	1927	500+	5	Limestone
94	18 $\frac{1}{4}$ miles west	do.	--	Old	250	60 at top	do.
e/ 95	19 miles west	do.	--	--	--	--	Limestone and shale
96	16 $\frac{1}{2}$ miles west	J. F. Beidler	Magnolia Oil Co.	1931	--	--	--
97	14-3/4 miles west	do.	--	--	1,190	6 +-	Limestone
98	14 $\frac{1}{2}$ miles west	do.	--	--	1,200	8	do.
99	14 $\frac{1}{2}$ miles west	do.	--	--	750+	4	do.
100	13 miles west	do.	--	--	1,600+	6 +-	do.
e/101	12 $\frac{1}{2}$ miles west	do.	--	--	618	8	do.
102	12 $\frac{1}{4}$ miles west	do.	--	--	600	6 $\frac{1}{2}$	do.
103	do.	do.	--	--	1,700	--	do.
104	10 miles southwest	Gaebler Bros.	Bob Rose	Not completed	--	--	--
e/105	9 $\frac{1}{2}$ miles southwest	do.	-- Tyler	1915	1,505	6 $\frac{1}{2}$	Limestone
e/106	9 miles southwest	do.	-- Shipman	1935	80	5- 3/16	Gravel and/or limestone
107	7 $\frac{1}{2}$ miles west	J. F. Beidler	--	1920	80	5- 3/16	--
e/108	7 miles west	Charles Fehlis	--	--	--	6	--
e/109	7 $\frac{1}{2}$ miles west	T. J. Coopwood	--	Old	--	6	Limestone
110	7 $\frac{1}{4}$ miles west	J. F. Beidler	--	1922	85	6 $\frac{1}{2}$	do.
e/111	7 miles west	do.	--	1879?	--	4	do.
112	9 miles west	do.	-- Crawford	1938	756	5- 3/16	do.
113	6 miles northwest	Charles Burns	--	1936	--	48	Gravel
e/114	6 $\frac{1}{2}$ miles northwest	Henry Fromme	--	1935	40	34	do.

(All wells are drilled unless otherwise stated under "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet) _{a/}	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
91	--	--	Flows	Dec. 18, 1937	W,C	S	Just barely flows. Water has hydrogen sulphide odor.
92	--	--	20d./	--	W,C	D,S	Water has hydrogen sulphide odor.
93	--	--	Flows	Feb. 13, 1939	--	S	Well flows about 20 gallons a minute.
94	0.1	--	18.10	do.	--	N	Well has hydrogen sulphide odor. Well is in Val Verde
95	1.6	--	45.04	do.	W,C	S	County.
96	--	--	--	--	--	--	Oil test. See log.
97	--	--	Flows	Feb. 8, 1939	--	S,I	Water has hydrogen sulphide odor.
98	--	--	Flows	do.	--	S,I	Well had relatively large discharge. Temperature 88° F.
99	--	--	Flows	do.	--	D,S	Water has hydrogen sulphide odor.
100	0.5	--	51.61	do.	W,C	S	do.
101	0.5	1,106	18.77	Aug. 20, 1937	W,G,C	D,S	Water has hydrogen sulphide odor. XK-12 f/
102	0.6	--	11.48	June 11, 1938	W,C	S	do.
103	0.7	1,046	22.48	Jan. 9, 1940	W,C	S	do.
104	--	--	--	--	--	--	Oil test. See log.
105	--	1,060	Flows	Apr. 15, 1938	--	D,S,I	Reported to have flowed 1,000 gallons a minute when drilled. Flows about 200 gallons a minute. Temperature 97° F.
106	2.3	--	54.47	do.	W,C	S	Reported yield 10 to 20 gallons a minute.
107	1.0	--	54.99	Apr. 6, 1938	W,C	S	
108	0.6	--	61.16	do.	W,G,C	S	
109	0.0	--	51.52	Mar. 31, 1938	W,C	D,S	Measured depth 70 feet.
110	2.0	--	55.10	Mar. 31, 1937	W,C	D,S	
111	1.7	--	31.55	Aug. 19, 1937	W,C	S	Reported to be cased to depth of 700 feet. Well flowed for several months but does not flow now. Temperature 81½° F.
112	--	1,119	--	--	W,C	S	XK-11 f/
113	1.4	--	30.44	Apr. 12, 1938	H,B	N	Dug well. Measured depth 33 feet.
114	1.2	--	37.74	do.	W,C	D,S	Dug well. Water level in well fluctuates with flow of water in nearby creek.

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
e/115	6 $\frac{1}{2}$ miles northwest	Dan Farley	--	1908	35	48	Gravel
e/116	6 miles northwest	J. B. Hudson	--	1934	95	8 $\frac{1}{2}$	do.
117	4 $\frac{1}{2}$ miles west	W. G. Lackey	Lon York	1918	90	6 $\frac{1}{2}$	Limestone
e/118	5 miles west	Jim Bader	--	1905	135	5- 3/16	do.
119	5 miles west	Chas. Zinsmeister	--	1921	60	6	do.
120	5 miles west	do.	Chas. Zinsmeister and others	1938	--	48	do.
e/121	5 miles west	do.	--	1907	160	6	do.
122	5 $\frac{1}{2}$ miles southwest	J. F. Beidler	--	1922	100	6 $\frac{1}{4}$	do.
123	7 $\frac{1}{2}$ miles southwest	Chas. Fehlis	--	Old	92	6 $\frac{1}{2}$	Limestone (?)
e/124	8 $\frac{1}{2}$ miles southwest	Gaebler Bros.	Herman Crawford	1935	80	5- 3/16	Gravel and/or limestone
e/125	5 miles southwest	J. F. Beidler	--	1910	300	6 $\frac{1}{2}$	Limestone
e/126	4 $\frac{1}{4}$ miles west	do.	--	1922	80	6 $\frac{1}{2}$	do.
e/127	3 $\frac{1}{2}$ miles west	Jim Bador	--	1907	132	6 $\frac{1}{2}$	do.
e/128	3 $\frac{1}{4}$ miles west	C. J. Poehlor	L. Jackson	1907	157	6 $\frac{1}{2}$	do.
129	3 $\frac{1}{2}$ miles west	do.	-- Livingston	1930	53	6 $\frac{1}{2}$	do.
130	3 $\frac{1}{2}$ miles northwest	Ben S. Jones	Ben S. Jones	1930	430	5- 3/16	Limestone and shale
e/131	4 $\frac{1}{2}$ miles northwest	do.	do.	1901	33	48	Gravel
e/132	4 $\frac{1}{2}$ miles north	W. C. Belcher	--	1929 or 1930	115	4	Limestone
e/133	3 $\frac{1}{2}$ miles northwest	G. W. Lackey	Ben. S. Jones	1912	164	6	Limestone and shale
e/134	2 miles northwest	do.	--	1912	154	6	do.
135	1-3/4 miles west	do.	Lon York	1914	75	6	Limestone
e/136	1 $\frac{1}{4}$ miles west	W. E. Janson	--	1936	73	6	do.
137	1 mile west	John Lowrance	--	1932	600	8	do.
e/138	1-3/4 miles west	Fritz Mussman	--	1935	233	8	Limestone and shale(?)
139	do.	L. J. Niemier	--	1913	145	8	do.

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet) ^{a/}	Elevation above sea level	Below measuring point (feet)	Date of measurement			
115	0.0	--	26.41	Apr. 12, 1938	W,C	D,S	Dug. well. Water in gravel and red clay.
116	1.6	--	31.81	do.	W,C	D,S	Water reported in gravel at 45 feet.
117	0.7	--	52.08	Apr. 1, 1938	W,C	S	
118	3.0	--	85.03	Aug. 19, 1937	W,C	D,S	XK-10 <u>f/</u>
119	0.7	--	46.98	Dec. 18, 1937	W,C	S	Reported to have struck water in cavern.
120	0.6	1,114	39.94	Nov. 29, 1938	G,Cf	I	Dug well. Estimated yield 500 gallons a minute. Well originally 47+ feet deep; later deepened; found several caverns.
121	0.6	--	41.81	Apr. 1, 1938	W,C	D,S	
122	2.0	--	54.25	Mar. 31, 1938	W,C	S	
123	--	--	--	--	W,C	S	
124	1.6	--	53.45	Apr. 15, 1938	W,C	S	Reported yield 10 to 20 gallons a minute.
125	2.2	--	39.45	Apr. 6, 1938	--	N	
126	2.6	--	48.39	Apr. 7, 1938	W,C	S	
127	1.2	--	44.54	Apr. 21, 1938	W,C	S	
128	0.8	--	39.41	Aug. 20, 1937	--	N	Supply inadequate for stock use. XK-9 <u>f/</u>
129	1.1	--	45.23	Dec. 18, 1937	W,C	D,S	
130	0.0	--	84.39	Apr. 12, 1938	--	N	Water reported from blue slate rock at 286 feet.
131	0.4	--	29.60	do.	W,C	D,S	Dug well. Water reported from red clay and loose rocks at 30 feet.
132	0.7	--	14.84	Feb. 15, 1939	W,C	S	
133	1.6	--	85.55	Apr. 12, 1938	W,C	S	Water reported under blue slate from 150 to 155 feet.
134	0.5	--	142 ₊	do.	W,C	D,S	
135	1.3	--	47.34	Nov. 22, 1937	W,C	D,S	Water reported to occur in light clay
136	--	--	--	--	W,C	D,S	
137	0.4	1,150	52.24	Nov. 19, 1937	H,C	N	Reported temperature 90° F. Highly mineralized water
138	0.8	--	117.5	Aug. 19, 1937	W,C	D,S	Water reported to occur below hard "iron" rock. cased off.
139	--	--	--	--	W,C	D	Water has "sweet" taste. XK-8 <u>f/</u>

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
140	2½ miles west	L. B. Langston	--	1935	300	6	Limestone
e/141	do.	do.	--	1930	300	6	do.
e/142	3 miles southwest	W. B. Davis	--	1918	50	8	do.
143	3-¾ miles southwest	J. F. Beidler	--	1922	--	8½	do.
e/144	3½ miles southwest	do.	--	1937	88	8½	do.
145	4½ miles south	do.	--	1923	39	6¼	Limestone(?)
e/146	3 miles south	Fred West	--	1913	60	6¼	Limestone
e/147	¼ mile southwest	U. S. Army	--	--	--	--	do.
e/148	¼ mile southeast	L. J. Niemeier	-- Jackson	1925	--	6	Limestone and shale
149	¼ mile northeast	Alphonse Montalvo	--	1890	--	48	do.
e/150	¾ mile northwest	Fanny Cox	--	1905	90	4½	Limestone
e/151	1 mile north	E. Webb	--	--	--	5- 3/16	Limestone(?)
152	do.	do.	-- Beaucourt (?)	1931	500+	8	Limestone
153	1¼ miles north	do.	--	--	--	6	Limestone and shale(?)
e/154	2½ miles north	Novie Henderson	--	1893	300±	6½	Limestone
e/155	3-¾ miles north	Jim Clamp	--	1910	300±	6½	do.
156	4½ miles northeast	do.	--	1910-	300±	5- 3/16	do.
e/157	2½ miles northeast	do.	-- Jackson	1910	300±	8	do.
158	1¼ miles northeast	Illinois Pipe Line Co.	--	1929	600+	8¼	do.
e/159	1-¾ miles east	W. W. Nipper	--	--	280	8	?
e/160	1½ miles southeast	B. F. Orr	--	1932	80	5- 3/16	Limestone
161	1½ miles southeast	Fred West	--	1937	65	5- 3/16	do.
e/162	do.	do.	--	1936	80	--	do.
163	3¼ miles southeast	do.	--	1932	80	6	do.
164	do.	B. F. Orr	--	1932	82	6	do.

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet) _{a/}	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
140	1.2	--	42.78	Mar. 31, 1938	W,C	S	
141	0.6	--	52.74	do.	W,G,C	D,S	
142	0.9	--	39.64	do.	W,C	D,S	
143	2.2	--	47.88	Apr. 7, 1938	--	N	Measured depth 55 feet. Reported to be inadequate for
144	1.3	--	47.36	do.	W,C	D,S	Four-foot cavern reported at 78 feet. use.
145	1.9	--	29.22	do.	W,C	S	
146	3.5	--	41.52	Apr. 2, 1937	W,C	S	
147	--	--	--	--	--	P,I	Las Moras Spring. Smallest discharge measured during 1939 was 11.4 second feet. Largest discharge measured during 1939 was 43.2 second
148	0.5	--	16.16	Aug. 19, 1937	W,C	D	Measured depth 183 feet. XK-7 F/
149	2.0	--	11.61	Apr. 1, 1938	W,C	N	Dug well. Measured depth 21 feet.
150	1.6	--	50.61	Apr. 11, 1938	W,C	D,S	Water has hydrogen sulphide odor.
151	2.0	--	41.29	do.	W,C	D,S	
152	-1.8	1,136	40.61	Jan. 10, 1939	--	N	
153	0.6	--	50.61	Apr. 11, 1938	W,C	N	
154	2.4	1,221	119.15	do.	W,G,C	D,S	
155	0.5	1,298	108.47	do.	W,C	S	
156	--	--	150d/	--	W,C	S	
157	1.0	--	153.14	Mar. 30, 1938	W,C	D,S	
158	--	--	--	--	E,C	D,S	
159	0.6	--	124.61	Apr. 8, 1938	W,C	S	Water has hydrogen sulphide odor.
160	2.8	--	42.33	Apr. 1, 1938	W,C	S	Reported to be cased to depth of 50 feet. Temperature 72° F.
161	3.2	--	38.92	Apr. 2, 1938	W,C	S	Reported yield 20 gallons a minute when drilled.
162	--	--	--	--	E,C	D,S	
163	2.4	--	43.14	do.	W,C	S	
164	1.0	--	37.35	Apr. 1, 1938	W,G,C	S	

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
e/165	3½ miles southeast	B. F. Orr	Joe Jones	1880	42	5-3/16	Limestone
e/163	5 miles southeast	E. L. Hobbs	--	Old	180	6	do.
e/167	5½ miles southeast	H. J. Toft	A. L. York	1918	133	6¼	do.
e/168	7¼ miles southeast	do.	--	1936	100	8¼	do.
169	5½ miles southeast	do.	--	1932	72	5-3/16	Limestone (5'
e/170	3 miles northeast	W. W. Nipper	--	1880	100-	6½	Limestone and shale
171	4-¾ miles northeast	John Fritter	--	1912	500+	8	Limestone
e/172	5½ miles northeast	do.	--	1918	300+	5-3/16	do.
173	7 miles northeast	N. P. Petersen	--	1885	310	6	do.
e/174	do.	do.	-- Ott	1898	291	5-3/16	do.
175	7 miles east	John Fritter	--	--	200	6	do.
176	5¼ miles east	do.	--	Old	500	6	do.
e/177	6 miles east	do.	--	--	--	6	do.
e/178	6½ miles east	H. J. Toft	--	1912	112	6	do.
e/179	7-¾ miles east	do.	--	1920	312	6¼	Limestone and shale
e/180	9¼ miles southeast	do.	--	1928	150	6¼	Limestone
181	9-¾ miles southeast	G. A. Harrison	Joe York	1934	271	8	Limestone and shale
e/182	9½ miles east	do.	Geo. Crystall	1938	514	6-5/8	Limestone
183	9¼ miles east	do.	--	Old	120+	5-3/16	do.
e/184	10-¾ miles east	N. P. Petersen	--	1934	350	6	do.
185	12½ miles east	do.	C. J. Woodhall	1888	266	8	do.
186	12-¾ miles east	R. B. Dunbar	--	Old	--	8	do.
e/187	11½ miles east	G. A. Harrison	Geo. Crystall	1936	250	8	do.
188	10½ miles east	do.	--	Old	200+	8	do.
e/189	11 miles east	do.	Geo. Crystall	1938	269	6-5/8	Limestone and shale
e/190	11½ miles southeast	G. C. Earwood	--	1936	--	8	Limestone

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet)a/	Elevation above sea level	Below measuring point (feet)	Date of measurement			
165	1.7	--	37.51	Aug. 19, 1937	--	N	XK-6 f/
166	2.6	--	49.16	Apr. 2, 1938	W,C	D,S	
167	2.4	--	9.58	Apr. 4, 1938	W,C	D,S	Reported yield 55 gallons a minute.
168	3.4	--	10.48	do.	G,C	S	Reported that water occurred in cracks of "white rock".
169	2.0	--	50.56	do.	W,C	S	Reported yield 12 to 15 gallons a minute.
170	0.6	--	57.91	Apr. 8, 1938	W,G,C	S	Discharge is reported to decrease in drought.
171	1.6	--	115.20	Feb. 20, 1939	W,G,C	D,S	XK-196 f/
172	2.0	1,271	172.27	Mar. 30, 1938	W,C	S	
173	0.2	1,345	227.63	June 16, 1938	W,G,C	D,S	Water is reported to occur at 310 feet.
174	1.0	1,345	228.13	June 15, 1938	W,C	D,S	
175	2.2	--	123.64 ₊	Feb. 20, 1939	W,C	S	
176	0.8	--	50.10	do.	W,C	S	
177	1.2	--	27.89	Aug. 19, 1937	W,C	S	XK-5 f/
178	0.7	--	30.23	Nov. 19, 1937	W,C	S	
179	2.5	--	109.13	Apr. 4, 1938	W,C	S	Water has hydrogen sulphide odor.
180	1.9	--	52.53	do.	W,C	S	
181	0.5	--	81.49	Apr. 21, 1938	W,C	S	
182	0.8	1,124	71.11	Oct. 13, 1938	W,C	S	Water has hydrogen sulphide odor. See log.
183	1.7	--	106.78	Apr. 21, 1938	W,C	S	Reported yield 25 to 30 gallons a minute.
184	0.4	--	182.71	June 16, 1938	W,C	S	
185	0.4	--	203.06	Dec. 16, 1937	W,C	S	
186	--	--	200d/	--	W,C	S	
187	1.0	--	211.04	Apr. 21, 1938	W,C	S	Water is reported to occur at 234 feet in limestone.
188	1.5	--	147.84	Apr. 3, 1940	W,C	S	
189	1.0	--	160.98	Oct. 20, 1938	W,C	S	Water has hydrogen sulphide odor.
190	0.6	--	147.82	Apr. 4, 1938	W,C	S	Water is reported to occur at 142 feet above blue clay.

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
e/191	12 $\frac{1}{2}$ miles east	G. C. Earwood	--	1936?	250	6	Limestone
192	14 $\frac{1}{4}$ miles east	do.	--	1936	212	4 $\frac{1}{2}$	do.
e/193	13-3/4 miles east	R. H. Earwood	--	1927	250	6	do.
194	13 miles east	do.	--	1922	1,000	8	do.
195	13-3/4 miles east	do.	--	Old	250	8	Limestone and shale(?)
196	do.	Geo. Rose	--	Old	60	36	Limestone and shale
197	do.	do.	--	1908	260	8	Limestone and shale(?)
e/198	11 $\frac{1}{2}$ miles east	G. A. Harrison	--	1914	200	6- 5/8	Limestone
199	12-3/4 miles east	R. H. Earwood	--	Old	300	6	do.
200	15 miles east	B. B. Dunbar	--	Old	350	8 $\frac{1}{4}$	do.
201	15-3/4 miles east	do.	--	Old	--	8	do.
202	16 $\frac{1}{2}$ miles east	Dave Rose, Jr.	--	1896	220	5	do.
203	17 $\frac{1}{4}$ miles east	B. B. Dunbar	--	Old	--	8	do.
204	14-3/4 miles east	Geo. Rose	Fath Mills	1925	435	5- 3/16	do.
205	16-3/4 miles east	Dave Rose, Jr.	do.	1925	285	5- 3/16	do.
e/206	18 $\frac{1}{2}$ miles east	Ralph Harris, Sr.	--	Old	300	8 $\frac{1}{2}$	do.
207	15 miles east	R. H. Earwood	--	Old	120	6	Limestone and shale
208	18 $\frac{1}{2}$ miles east	Buddy Harris	--	Old	150	6 $\frac{1}{2}$	Limestone
209	do.	J. Hunter	--	Old	180	4 $\frac{1}{2}$	do.
e/210	18-3/4 miles east	Ethel Whitaker	--	--	104	4 $\frac{1}{2}$	do.
211	20 miles east	Judge Brice	T. J. Hiney	1939	1,420	5- 3/16	do.
212	21 $\frac{1}{4}$ miles southeast	A. H. Kincaid	--	1937	97	4 $\frac{1}{2}$	do.
213	21-3/4 miles southeast	do.	--	1932	46	6	do.
214	21 $\frac{1}{2}$ miles southeast	-- McFatter	--	Old	200+	6	?

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet) _{a/}	Elevation above sea level	Below measuring point (feet)	Date of measurement			
191	0.6	--	60.71	Aug. 20, 1937	W,C	D,S	XK-3 <u>I/</u>
192	--	--	--	--	W,C	S	Well was dry in spring 1938; drilled 100 feet deeper but no water was encountered.
193	0.8	--	98.72	Aug. 18, 1937	G,C	D,S	XK-2 <u>I/</u>
194	0.6	--	192.95	Apr. 2, 1940	W,C	S	Water has hydrogen sulphide odor.
195	3.7	--	47.32	Nov. 24, 1937	W,G,C	S	
196	--	--	Dry	Nov. 24, 1937	--	N	Dug well.
197	0.6	--	125.55	do.	W,G,C	D,S	Water has hydrogen sulphide odor. Reported yield $6\frac{1}{2}$ gal-
198	--	--	--	--	W,G,C	D,S	XK-4 <u>I/</u> <u>lons a minute.</u>
199	0.6	--	64.76	Nov. 23, 1937	W,C	S	
200	1.8	--	216.36	Dec. 16, 1937	W,C	S	
201	0.8	--	203.21	do.	W,C	D,S	
202	--	--	187.43	Nov. 24, 1937	W,C	S	Well yielded 22 gallons a minute for seven consecutive
203	--	--	200d/	--	W,C	S	<u>days in 1910.</u>
204	--	--	320d/	--	W,C	S	Well has yielded $12\frac{1}{2}$ gal-
205	0.8	--	146.09	Nov. 24, 1937	W,C	D,S	<u>lons a minute.</u>
206	1.0	--	141.44	Apr. 5, 1940	W,C	S	
207	2.2	--	76.72	Nov. 24, 1937	W,C	S	
208	0.7	--	62.64	Nov. 19, 1937	W,G,C	S	
209	1.9	--	68.41	do.	W,G,C	D,S	
210	1.0	--	58.70	Aug. 18, 1937	W,C	D,S	XK-1 <u>I/</u>
211	2.0	1,068	129.39	Jan. 20, 1940	W,C	S	Cased to depth of 1,227 Feet. In Uvalde County. Water is too highly mineralized for human consumption. See log.
212	0.7	--	55.33	Nov. 22, 1937	W,C	S	Drawdown 15 feet after pumping 8 gallons a minute for
213	1.0	--	10.59	do.	--	N	<u>25 hours.</u>
214	--	--	--	--	W,C	D,S	Well barely furnishes sufficient water for domestic needs. Water has hydrogen sulphide odor.

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
215	21½ miles southeast	E. H. Schmidt	--	--	100	--	Sandstone(?)
216	21 miles southeast	do.	-- Strippling	--	250	--	Sandstone
217	18½ miles southeast	O. R. Altizer	--	1931	400	6	do.
e/218	18 miles southeast	do.	--	1934	207	8¼	do.
e/219	17¼ miles southeast	do.	--	1930	100	6	Limestone
220	17½ miles southeast	Louis L. Farr	--	1928	62	--	do.
221	18-¾ miles southeast	J. L. Pingnot	--	1915	170	4½	do.
222	18½ miles southeast	do.	--	1923	200+	4½	do.
223	18 miles southeast	do.	--	1923	100	6	do.
224	17-¾ miles southeast	do.	--	1923	104	4½	do.
225	18 miles southeast	do.	--	1900	350	6	do.
226	16½ miles southeast	Louis L. Farr	--	1937	500	--	--
e/227	16½ miles southeast	do.	--	1937	206	8¼	Limestone
e/228	15¼ miles southeast	do.	--	1929	152	5- 3/16	do.
e/229	15 miles southeast	do.	--	1929	210	6¼	do.
e/230	16½ miles southeast	do.	--	1929	160	5- 3/16	do.
231	17 miles southeast	Lynch Davidson Co.	Mon Fenley	1938	--	--	Sand
232	14 miles southeast	R. W. Morrison	do.	--	--	6+	Limestone
e/233	13¼ miles southeast	do.	--	--	--	6+	do.
234	11½ miles southeast	do.	--	--	--	--	--
e/235	12 miles southeast	do.	--	--	--	--	Limestone
e/236	9½ miles south	I. N. Boycourt	--	1918	--	48	Gravel
e/237	14½ miles south	R. R. Martin	--	1900+	1,100	8	--
238	do.	--	--	--	498	--	--
239	8 miles south	J. F. Beidler	Joe York	1925	100	5- 3/16	Limestone

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift	Use of water	Remarks
	Height above ground level (feet) _{a/}	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
215	0.4	--	37.30	Jan. 2, 1940	W,C	S	Water is too highly mineralized for human consumption.
216	--	--	--	--	--	N	In Maverick County. See log.
217	0.2	--	40.04	Apr. 6, 1938	W,C	S	Water has a salty taste.
218	0.9	--	114.71	Apr. 5, 1938	W,C	S	Water reported to occur in coarse black sandy rock. Water has hydrogen sulphide
219	0.7	--	20.41	Apr. 6, 1938	W,G,C	D,S	odor.
220	--	--	--	--	W,C	S	
221	0.4	--	90.22	Nov. 22, 1937	--	N	
222	0.7	--	115.82	Nov. 23, 1937	G,C	S	Unfit for human consumption.
223	0.7	--	40.22	do.	W,C	S	
224	1.8	--	13.92	do.	--	N	Water level reported to be lowered 20 feet after bailing 5 gallons a minute for 4
225	1.3	--	36.83	do.	W,C	S	hours
226	--	--	Dry	--	--	N	
227	0.6	--	76.24	Apr. 5, 1938	W,C	S	See log.
228	0.8	--	104.22	do.	W,C	D,S	
229	2.3	--	78.92	do.	W,C	S	
230	2.2	--	111.98	do.	W,C	S	
231	--	--	--	--	W,C	S	Water has hydrogen sulphide odor.
232	0.0	--	19.10 ₊	Feb. 11, 1939	W,C	D,S	
233	0.5	--	18.14	do.	W,C	D,S	
234	--	--	--	--	--	--	See log.
235	--	--	--	--	--	--	Estimated flow 10 gallons a minute.
236	0.3	--	14.93	Apr. 4, 1938	--	N	Measured depth 23 feet.
237	--	--	Flows	Feb. 11, 1939	--	N	Water has salty taste.
238	--	--	--	--	--	N	Reported to have encountered a little salt water.
239	2.2	--	45.84	Apr. 7, 1938	W,G,C	S	

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
240	6 $\frac{1}{2}$ miles south	J. F. Beidler	Joe York	1910	300	6 $\frac{1}{4}$	Limestone
241	6-3/4 miles south	do.	--	1922	100	5-3/16	do.
e/242	6 $\frac{1}{2}$ miles southwest	do.	--	1922	75	5-3/16	do.
e/243	10 $\frac{1}{2}$ miles southwest	Tom Martin	--	Old	20	36	--
244	13 $\frac{1}{2}$ miles southwest	Lon York	--	Old	--	5	--
e/245	14-3/4 miles southwest	Guinn Williams	--	--	70	--	--
e/246	16 miles southwest	W. W. Jameson	--	Old	70	7	Gravel
247	18 miles southwest	Russell Martin	--	--	--	--	do.
248	15-3/4 miles southwest	do.	--	Old	70+	6	Limestone and/or gravel
249	13 miles southwest	J. H. Stadler	--	1927	82	--	do.
e/250	11-3/4 miles southwest	do.	--	1912	80	6 $\frac{1}{4}$	do.
e/251	12 $\frac{1}{2}$ miles southwest	O. J. Koehler	--	1912	82	5-3/16	do.
e/252	12 $\frac{1}{4}$ miles southwest	do.	--	1915	70	5-3/16	do.
e/253	12 miles southwest	John Sheedy	--	Old	50 to 60	6 $\frac{1}{4}$	do.
254	13 $\frac{1}{2}$ miles southwest	O. J. Koehler	--	1917	70	5-3/16	do.
255	do.	do.	--	1934	76	6 $\frac{1}{4}$	do.
e/256	15 $\frac{1}{2}$ miles southwest	J. H. Stadler	--	1904?	82	--	do.
257	15 miles southwest	do.	--	1926	82	--	do.
258	15 $\frac{1}{2}$ miles southwest	R. R. Martin	--	--	--	6+	do.
259	16-3/4 miles southwest	J. H. Stadler	--	1908	80 to 90	6	do.
260	18 $\frac{1}{2}$ miles southwest	do.	--	1933	94	--	do.

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/	Use of water c/	Remarks
	Height above ground level (feet)a/	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
240	1.0	--	38.56	Apr. 7, 1938	W,C	S	
241	1.6	--	40.36	do.	W,C	S	Reported yield 2 to 3 gallons a minute.
242	4.0	--	27.95	do.	W,C	D,S	
243	0.9	--	2.24	Apr. 15, 1938	W,C	D,S	Dug well. Irrigation ditch nearby
244	1.8	--	50.69	Feb. 10, 1939	--	N	Water is reported to have salty taste.
245	1.5	--	56.47	do.	W,C	D,S	
246	1.5	--	61.30	do.	W,C	D,S	
247	--	--	--	--	--	--	Tequesquite Spring. Estimated flow 2 gallons a minute on February 10, 1939.
248	1.0	--	44.47	Feb. 10, 1939	W,C	D,S	
249	0.8	--	34.52	June 8, 1938	W,C	S	Water has hydrogen sulphide odor.
250	0.7	--	30.19	Apr. 16, 1938	W,C	D,S,I	Temperature 74° F.
251	0.7	--	47.84	do.	W,C	D,S,I	
252	0.7	--	46.24	do.	W,C	D,S	
253	--	--	20d/	--	W,C	D,S	
254	1.6	--	36.81	Apr. 20, 1938	W,C	S	
255	0.5	--	42.46	do.	W,C	S	
256	--	--	40d/	--	W,G,C	S	
257	1.0	--	44.43	June 8, 1938	W,C	S	
258	1.2	--	58.88	Feb. 10, 1939	W,C	S	
259	1.9	--	54.25	do.	--	I	
260	--	--	--	--	--	--	Reported to have been pumped at 10 to 15 gallons a minute. Water contains a relatively large amount of mineral matter. Water occurred at 66 feet in sand and gravel.

Records of wells in Kinney County --Continued

No.	Distance and direction from Brackettville Post Office	Owner	Driller	Date completed	Reported depth of well (feet)	Diameter of well (inches)	Character of principal water-bearing bed
e/261	16-3/4 miles southwest	J. H. Stadler	--	1929	82	--	Limestone and/or gravel
262	17 1/2 miles southwest	Leo Frerich	--	1909	80	--	do.
263	16 miles southwest	J. H. Stadler	Al. Jackson	1910	250	--	do.
264	21 1/2 miles southwest	J. E. White	--	1918?	--	24	do.
265	20 1/2 miles southwest	do.	Lloyd Oil Co.	--	--	--	--
e/266	20 miles west	F. W. Herbst	--	--	100	6	--

a/ Measuring point was usually top of casing, pump base, curb or water pipe clamp.

b/ C, cylinder; Cf, centrifugal; B, bucket; W, windmill; H, hand; E, electric.

(All wells are drilled unless otherwise stated in "Remarks")

No.	Measuring point		Water level		Method of lift b/ c/	Use of water c/	Remarks
	Height above ground level (feet) ^{a/}	Elevation above sea level (feet)	Below measuring point (feet)	Date of measurement			
261	0.8	--	44.34	Feb. 10, 1939	W,C	S	
262	--	--	--	--	--	--	
263	0.5	--	10.53	Feb. 10, 1939	W,C	--	Reported that first water occurred at 60 feet, second water at 200 feet.
264	2.8	--	27.00	Oct. 13, 1938	W,C	D	Dug well. Measured depth 32 feet.
265	--	--	--	--	--	--	Oil test. See log.
266	1.0	--	61.32 ⁺	Feb. 13, 1939	W,C	S	

^{e/} I, irrigation; P, public supply; D, domestic; S, stock; N, not used.

^{d/} Reported by driller or owner.

^{e/} For analysis of water see table on pp. 33-37.

^{f/} Number assigned to well in published records of water-level measurements.

Table of Drillers' Logs, Kinney County, Texas

	Thickness (feet)	Depth (feet)
Driller's log of well 87		
19 $\frac{1}{2}$ miles northwest of Brackettville Post Office.		
Lime - - - -	10	10
Yellow clay - - -	10	20
Hard gray lime - - -	5	25
Yellow lime - - -	15	40
White lime - - -	25	65
Gray lime - - -	45	110
Hard gray lime - - -	110	220
Soft gray lime - - -	80	300
Grayish-white lime - -	50	350
Soft sandy gray lime, show of gas - - -	35	385
Medium sandy lime- - -	30	415
Hard sandy gray lime - -	5	420
Sandy gray lime, show of oil - - - -	30	450
White lime - - -	25	475
Gray sand, hole full of water - - - -	10	485
Hard gray lime - - -	5	490
Hard black lime, saturated with oil - -	10	500
Hard dark-colored lime-	15	515
Hard blue lime - - -	5	520
Dark-colored lime and slate - - - -	10	530
Hard dark-brown lime - -	45	575
Dark-gray lime, shells-	7	582
Hard cherty gray lime - -	3	585
Gray lime- - - -	10	595
Gray lime, sea shells - -	15	610
Hard gray lime - - -	20	630
Sandy gray lime, con- tains sea shells - - -	18	648
Gray lime- - - -	57	705
Hard brown lime - - -	25	730
Gray lime- - - -	80	810
Soft white slate - - -	5	815
Gray lime- - - -	125	940
Hard brown lime - - -	20	960
Soft gray slate - - -	7	967
Hard gray lime - - -	93	1060
Soft gray slate - - -	15	1075
Hard gray lime - - -	10	1085
Soft blue slate - - -	45	1130
Hard brown lime - - -	24	1154
Gray slate - - - -	6	1160
Very hard gray lime - -	3	1163
Soft gray slate, alter- nating with seams of white gypsum - - -	35	1198

	Thickness (feet)	Depth (feet)
Driller's log of well 87 --continued		
Brown lime- - - -	30	1228
Soft gray slate - - -	2	1230
Hard brown lime - - -	8	1238
Hard gray lime - - -	10	1248
Soft blue slate - - -	3	1251
Gray lime - - - -	133	1384
Hard gray lime - - -	3	1387
Dark-gray slate - - -	26	1413
Gray lime- - - -	12	1425
Gray slate - - - -	9	1434
White gypsum - - - -	4	1438
Hard brown lime - - -	7	1445
Hard brown slate - - -	3	1448
Brown lime - - - -	16	1464
Hard blue lime - - -	4	1468
Hard dark gray lime, show of gas- - - -	26	1494
Hard gray lime - - -	24	1518
Dark slate - - - -	3	1521
Soft gray lime and sand, conglomeratic - -	10	1531
Brown lime, sand, yellow water, show of gas - - - -	17	1548
Dark gray slate - - -	3	1551
Hard brown lime - - -	14	1565
Hard dark gray lime - -	22	1587
Hard sandy gray lime - - - -	57	1644
Hard sandy lime, conglomeratic - - -	8	1652
Gray to dark gray lime - - - -	90	1742
Soft white to gray sand, conglomeratic hole full of water - -	20	1762
Hard gray lime - - -	28	1790
Hard dark-gray sand , show of oil- - - -	8	1798
Hard gray lime - - -	14	1812
Gray sand- - - -	20	1832
Hard sharp gray sand, good show of oil- - -	20	1852
Sandy gray lime - - -	19	1871
Gray slate- - - -	1	1872
Hard sharp sandy gray lime - - - -	35	1907
Gray slate - - - -	2	1909
Hard sandy gray lime - -	6	1915
Soft gray slate - - -	5	1920
Gray sand with 18 inch rock asphalt - -	13	1933
Hard gray lime - - -	14	1947

(Continued on next page.)

Table of Drillers' Logs, Kinney County --Continued

Thickness (feet)		Depth (feet)	Thickness (feet)		Depth (feet)
Driller's log of well 87 -- continued			Driller's log of well 96		
Blue shale - - -	2	1949	16 $\frac{1}{2}$ miles west of Brackettville Post Office.		
Brown sand - - -	3	1952	Brown gravel - - -	25	25
Gray lime - - -	12	1964	Soft blue shale - - -	56	81
Hard sandy gray lime -	11	1975	Hard lime shell - - -	7	88
Hard white lime - - -	12	1987	Soft blue shale - - -	57	145
Hard gray lime - - -	12	1999	Hard gray shale - - -	45	190
Light-gray crystalline lime- - - - -	51	2050	Soft white lime - - -	100	290
Cream-colored and opaque pinkish-gray crystalline lime -	53	2103	Soft blue shale - - -	60	350
Gray shale - - -	38	2141	Hard gray shale - - -	93	443
Pinkish-colored lime -	11	2152	Lime shells- - - -	22	465
Pink crystalline lime, few crystals of pyrite - - - -	11	2163	Hard white lime - - -	35	500
Light-gray crystal- line lime - - - -	19	2182	Very hard black lime -	455	955
Fine crystalline lime stained red-brown from iron, full of fine iron shavings, small percent quartz sand- - -	38	2220	Hard lime shells - - -	31	986
Dark gray crystalline lime - - - - -	27	2247	Hard "granite" - - -	9	995
Gray to white (material not reported) - - -	13	2260	Hard black lime - - -	22	1017
Crystalline lime - - -	27	2287	Soft gray lime - - -	13	1030
Black crystalline limestone slightly sandy with about 5 percent cream colored crystal lime- - -	71	2358	Lime shells - - - -	40	1070
Dark-gray crystalline lime- - - - -	50	2408	Hard black shale - - -	10	1080
Brown sandstone - - -	47	2455	(1 barrel sulphur water an hour at 1095)		
Light tan-colored sand- - - - -	8	2463	Hard sandy lime - - -	30	1110
Calcite and some silica, black or gray material with calcite form of pyrite - - -	27	2490	Black lime - - - -	98	1208
Black calcite- - - -	10	2500	(10 barrels sulphur water an hour at 1250 to 1260)		
Sand, highly iron stained a red brown -	140	2640	Lime shells - - - -	52	1260
Sand - - - - -	25	2665	(2 barrels sulphur water an hour 1330 to 1332)		
About 50 percent sand, 50 percent black streaked calcite- - -	10	2675	Hard gray lime - - -	170	1430
Dolomitic quartzite, similarly spotted -	155	2830	Soft gray shale - - -	20	1450
TOTAL DEPTH		4381	Hard white lime - - -	18	1468
			Hard gray shale - - -	22	1490
			Gray lime- - - - -	20	1510
			Lime shells - - - -	725	2235
			Black lime - - - -	85	2320
			Gray lime- - - - -	120	2440
			Black lime - - - -	10	2450
			(Hole full of salt water 2440 to 2450)		
			Gray lime - - - - -	90	2540
			Hard water sand - - -	62	2602
			Hard gray lime- - - -	93	2695
			Sandy lime - - - - -	115	2810
			Soft white shale - - -	5	2815
			Hard sandy lime - - -	15	2830
			Hard sandy shells, sharp-	25	2855
			Hard sandy lime- - - -	15	2870
			Soft sandy shale - - -	30	2900
			Hard sandy lime - - -	20	2920
			Soft sandy shale - - -	15	2935
			(Continued on next page.)		

Table of Drillers' Logs, Kinney County --Continued

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 96 --continued</u>		
Hard sandy lime - - -	15	2950
Soft gypsum and shale-	13	2963
Hard sharp gray sand -	15	2978
Soft sandy shale - - -	8	2986
Hard sandy lime - - -	24	3010
Soft sandy shale - - -	10	3020
Hard sandy lime - - -	15	3035
Soft brown sand - - -	18	3053
Hard sandy lime - - -	7	3060
Soft light shale - - -	40	3100
Soft sandy shale - - -	68	3168
Soft light shale - - -	32	3200
Hard dark-colored lime-	10	3210
Hard lime shells - - -	98	3308
Soft red bed - - - - -	17	3325
Hard red sand- - - - -	5	3330
Soft red bed - - - - -	60	3390
Hard sandy lime - - - -	88	3478
Soft black shale - - - -	9	3487
Hard sandy lime - - - -	38	3525
Hard red lime- - - - -	20	3545
Hard sharp sandy lime - - - - -		3563
Soft sandy shells- - -	1440	5003
Hard red bed - - - - -	2	5005
($\frac{1}{2}$ barrel salt water an hour at 5250 to 5253 feet)		
Gray sand- - - - -	275	5280
TOTAL DEPTH		5280

Description of samples from well 104

10 miles southwest of Brackettville Post Office.

Soft light gray caliche-	30	30
Limestone pebbles- - -	10	40
(No sample) - - - - -	5	45
Limestone pebbles- - -	5	50
Soft chalky light buff- colored limestone - - -	10	60
(No sample) - - - - -	5	65
Hard gray limestone - -	25	90
(No sample) - - - - -	10	100
Hard gray limestone - -	20	120
(No sample) - - - - -	10	130
Gray to dark gray limestone - - - - -	20	150
Gray limestone - - - - -	10	160
(No sample) - - - - -	5	165
Gray limestone - - - - -	10	175
Gray to dark gray limestone - - - - -	5	180

	Thickness (feet)	Depth (feet)
<u>Description of samples from well 104--Cont</u>		
(No sample) - - - - -	55	235
Gray limestone and a small amount of dark- gray limestone - - - -	25	260
Gray to dark-gray limestone - - - - -	5	265
Gray to very dark- gray limestone - - - -	10	275
Gray to dark-gray limestone - - - - -	5	280
Light-gray limestone -	5	285
Light-gray limestone and a small amount of dark-gray limestone-	5	290
Light-gray limestone -	10	300

Description of samples from well 182

$9\frac{1}{2}$ miles east of Brackettville Post Office.

(No sample) - - - - -	55	55
Bluish-gray shale- - -	5	60
Gray shale with small light-gray spots, contains some bentonite - - - - -	5	65
Gray shale with small light-gray spots - - -	6	71
Gray shale with small light-gray spots, also some arenaceous lime- stone - - - - -	19	90
Gray shale with small light-gray spots, contains some bentonite-	20	110
Gray shale with small light-gray spots- - -	20	130
Gray shale with small light-gray spots, some arenaceous limestone, pyrite, and a small amount of light-gray fine-textured lime- stone - - - - -	20	150
Light-gray limestone -	15	165
(No sample) - - - - -	10	175
Light-gray limestone -	35	210
Light-gray limestone, fragments of calcite-	25	235
(No sample) - - - - -	30	265
Bluish-gray shale, contains pyrite and shell fragments- - -	5	270

(Continued on next page.)

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Table of Drillers' Logs, Kinney County -- Continued

Description of samples from well 182-Cont.	Thickness (feet)	Depth (feet)
Clay reported (no sample) - 103		373
White limestone reported (no sample) - - - - - 27		400
Light-gray, fine-textured limestone - - - - - 10		410
Light-gray, fine-textured, some light-blue shale, and some light-gray lime- stone with small black specks and pyrite - - - - 50		460
Limestone reported (no sample) - - - - - 54		514

Description of samples from well 211		
20 miles east of Brackettville Post Office.		
Gray clay, calcareous; contains small specks of black material, some bentonite and shell frag- ments - - - - - 122	122	
Light-gray, fine-textured limestone, contains small specks of black material, some gray calcareous clay and shell fragments - - - 88	210	
Light-gray, fine- textured limestone, contains small specks of black material, some gray calcareous clay, shell fragments and bentonite - - - - - 30	240	
Light-gray, fine-textured limestone, contains relatively large specks of black material, pyrite, shell fragments, and gray calcareous clay - - 15	255	
Light-gray fine-textured limestone - - - - - 140	395	
Light-gray to gray, fine- textured limestone - - 5	400	
Light-gray to gray, fine- textured limestone, also some dark-gray to black calcareous shale - - - 12	412	
Dark-gray to black calcareous shale, small amount of light- gray limestone - - - - 68	480	
Light-gray, fine-tex- tured limestone - - - 35	515	
Gray to dark-gray, argillaceous limestone; shell fragments and pyrite - - - - - 195	710	
Gray to dark-gray, cal- careous shale; shell fragments - - - - - 30	740	
Light gray limestone - - 35	775	
Dark gray shale, very calcareous - - - - - 8	783	

Description of samples from well 211-Cont.	Thickness (feet)	Depth (feet)
Gray calcareous shale, with dark gray spots - - 179	179	962
Light-gray, fine-tex- tured limestone - - - - 28	28	990
Light-gray, fine-tex- tured chalky limestone - 50	50	1040
Dark-gray, slightly calcareous clay; pyrite - 65	65	1105
(No sample) - - - - - 315	315	1420

Driller's log of well 216		
21 miles southeast of Brackettville Post Office.		
Surface soil, red sandy loam - - - - - 2	2	2
Subsoil, sandy clay, light red - - - - - 3	3	5
Light pink to gray (type of material not reported) - - - - - 5	5	10
White sandy shale - - - - 15	15	25
White shaley sand - - - - 10	10	35
Yellow shaley sand - - - - 5	5	40
Light-yellow or gray shaley sand - - - - - 15	15	55
Fine blue shaley sand - - 25	25	80
Dark-colored shale - - - 15	15	95
Blue sandy shale - - - - 15	15	110
Blue sand and sandstone showing slight traces of dead asphalt. (Bailed water at 12½ gallons a minute) - - - - - 20	20	130
Gray shaley sand - - - - 8	8	138
Blue shale - - - - - 22	22	160
Blue shaley sand - - - - 18	18	178
Sandy blue shale - - - - 72	72	250

Driller's log of well 227		
16½ miles southeast of Brackettville Post Office.		
Yellow limestone - - - - - 40	40	40
Yellow clay (water seep at bottom) - - - - 60	60	100
Gray limestone (water at base) - - - - 40	40	140
Blue shale - - - - - 40	40	180
Broken gray lime- stone (water) - - - - - 26	26	206

Table of Drillers' Logs, Kinney County --Continued

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 234</u>		
11 $\frac{1}{2}$ miles southeast of Brackettville Post Office.		
(No sample) - - -	80	80
Chalk- - - -	350	430
Dark-colored shaley limestone - - -	10	440
Chalk- - - -	140	580
Dark-gray shale - - -	20	600
Chalky shale - - -	20	620
Black shale - - -	285	905
Limestone- - - -	90	995
"Mud" - - - -	5	1000
Clay - - - -	150	1150
White limestone - - -	10	1160
White chalky limestone-	50	1210
Shale - - - -	20	1230
Gray limestone - - -	190	1420
(No sample) - - -	80	1500
Buff-colored limestone - - -	30	1530
TOTAL DEPTH		3600

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 265</u>		
20 $\frac{1}{2}$ miles southwest of Brackettville Post Office.		
Soil - - - -	3	3
Light-colored clay -	6	9
Gravel (little fresh water) - - - -	10	19
Yellow clay - - - -	5	24
Gray lime (2 barrels of water an hour) -	79	103
Gray lime- - - -	2	105
Blue shale - - - -	2	107
Gray lime- - - -	25	132
Light-brown shale-	3	135
Gray lime (hole caving a little) -	38	173
Gray lime- - - -	66	239
Light-brown shale-	16	225
Hard lime- - - -	31	256
Light-brown shale-	14	270
Hard gray lime - - -	1	271
Soft light-brown shale - - - -	29	300
Hard gray lime - - -	15	315
Hard white shale - - -	19	334
(Little show of water about 2 bailers an hour at 338 feet.)		
Soft black shale - - -	16	350

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 265 --continued</u>		
(Four barrels of water an hour at 366 to 375 feet)		
Soft light-brown shale-	25	375
Hard blue shale- - -	35	410
Soft light-brown shale - - - -	50	460
Hard blue shale - - -	15	475
Soft light-brown shale-	35	510
Dark-brown shale - - -	40	550
Dark-brown sandy shale - - - -	71	621
Hard white lime - - -	2	623
Light-brown shale-	6	629
Hard brown shale, pyrite - - - -	5	634
Hard white lime - - -	119	753
Soft blue shale - - -	42	795
Soft blue shale, (hole dry) - - - -	125	920
Blue shale - - - -	10	930
Gray shale - - - -	15	945
Gray lime- - - -	195	1140
Lime- - - -	2	1142
Hard gray lime - - -	252	1394
Soft lime- - - -	2	1396
Hard gray lime - - -	43	1439
Soft gray lime - - -	4	1443
Hard gray lime - - -	85	1528
Black lime, quartz - -	70	1598
Hard black lime - - -	77	1675
Sandy lime - - - -	36	1711
Black lime - - - -	16	1727
Brown lime - - - -	16	1743
Black lime - - - -	49	1792
Gray lime (4 barrels of water an hour) - - - -	15	1807
Gray lime (hole full of water)- - - -	20	1827
Lime - - - -	38	1865
Water sand (flow 200 gallons an hour)- -	10	1875
Hard gray sand - - -	32	1907
Hard gray lime - - -	81	1988
Hard blue lime - - -	5	1993
Hard brown lime- - -	56	2049
Hard gray lime - - -	69	2118
Lime and shale - - -	28	2146
Hard gray lime - - -	6	2152
Hard brown lime- - -	22	2174
Hard gray lime - - -	11	2185
(Continued on next page.)		

Table of Drillers' Logs, Kinney County --Continued

Thickness		Depth	Thickness		Depth		
(feet)		(feet)	(feet)		(feet)		
Driller's log of well 265 --continued			Driller's log of well 265 --continued				
Hard blue lime-	- -	24	2209	Hard gray lime-	- -	18	2619
Hard brown lime	- -	32	2241	Hard blue shale	- -	15	2634
Hard gray lime-	- -	8	2249	Hard brown lime	- -	42	2676
Hard brown lime	- -	4	2253	Lime and shale	- -	10	2686
Hard gray lime-	- -	31	2284	Hard brown lime	- -	83	2769
Hard brown lime	- -	26	2310	Hard gray lime	- -	147	2916
Hard blue lime-	- -	291	2601	Hard brown lime	- -	105	3021

Partial analyses of water from wells in Kinney County, Texas

(Analyzed by E. W. Lohr at Austin, Tex. Well numbers correspond to numbers in table of well records. Results are in parts per million.)

Well No.	Owner	Depth (feet)	Date of collection	Total dissolved solids	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃
6	C. D. Covington	360	Feb. 11, 1939	--	--	--	--	--	3	9.0	--	--	--
10	R. C. Delong	--	Feb. 25, 1939	366	--	--	29	364	4	10	--	29	278
18	Dave Rose, Sr.	45	Feb. 4, 1939	157	--	--	16	160	3	12	--	(a)	117
19	Do.	160	Feb. 14, 1939	--	--	--	--	--	4	18	--	--	--
24	T. C. Wadsworth	100	Sept. 1, 1939	--	--	--	--	--	38	17	--	--	--
26	F. O. Edwards	200	Feb. 9, 1939	231	--	--	15	248	3	11	--	1.8	192
33	Foster Drewitt	275	Feb. 16, 1939	--	--	--	--	--	5	11	--	--	--
37	Nolan and Postell	455	June 14, 1938	237	78	3.1	8.6	234	5	12	0	15	208
39	Do.	410	do.	--	--	--	--	--	5	11	--	3.6	--
40	N. P. Petersen	--	June 16, 1938	154	48	3.1	6.8	148	5	10	--	8.2	133
41	Do.	475	June 15, 1938	181	53	5.9	10	184	6	15	.2	.0	157
43	Nolan and Postell	380	June 12, 1938	214	73	4.9	4.1	230	5	11	0	2.4	203
44	Do.	360	June 14, 1938	223	76	5.4	1.9	226	7	10	.2	11	212
46	Do.	342	June 13, 1938	405	94	6.9	49	220	34	104	.3	8.1	263
47	Do.	365	do.	233	76	2.6	9.4	220	10	14	--	13	201
50	N. P. Petersen	533	June 15, 1938	203	60	6.0	12	218	7	10	.2	.1	175
51	Do.	432	do.	269	82	3.2	16	230	10	30	.1	14	218
52	Do.	480	do.	--	--	--	--	--	7	15	--	18	--
54	E. Webb	--	Apr. 13, 1938	231	78	4.1	4.0	228	6	9.0	0	18	212
55	Do.	--	do.	261	92	4.4	2.6	274	7	9.0	0	11	248
60	Do.	--	do.	310	104	5.2	6.6	294	13	19	.1	17	281
61	Do.	--	do.	266	91	5.5	1.0	258	8	9.0	0	24	250
62	Do.	--	do.	299	105	3.8	3.0	294	8	12	.1	22	278
63	J. D. Harwood	--	do.	259	86	2.2	11	254	11	13	0	11	224
65	S. M. Harwood	--	Apr. 14, 1938	277	91	2.6	9.4	244	13	19	.1	22	238

135-

a/ Nitrate less than 20 parts per million.

Partial analyses of water from wells in Kinney County, Texas--Continued

Well No.	Owner	Depth (feet)	Date of collection	Total dissolved solids	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃
66	J. D. Harwood	269	Apr. 14, 1938	b/ 256	78	2.9	15	234	9	12	0.3	24	207
67	S. M. Harwood	235	do.	239	82	2.4	6.1	240	6	9.0	0	15	215
68	Do.	259	do.	207	69	2.3	6.9	200	8	11	0	11	182
69	J. D. Harwood	300	do.	c/ 227	81	2.5	4.7	244	8	10	0	.32	213
70	W. C. Belcher	165/	Feb. 15, 1939	186	--	--	10	183	6	10	--	6.8	153
71	Do.	Spring	Oct. 4, 1939	d/ 271	85	3.6	4.2	261	6.3	9.0	--	3.6	227
72	Do.	115/	Feb. 15, 1939	216	--	--	9	202	8	10	--	7.4	174
73	Do.	--	do.	313	--	--	13	242	69	9	--	.2	252
77	Edward Mey	355	Apr. 23, 1938	--	--	--	--	--	12	8.0	--	11	--
79	J. W. Forester	210	Apr. 22, 1938	e/ 543	67	46	65	308	145	65	--	3.1	356
80	Do.	100/	do.	343	102	14	14	368	10	21	--	.4	312
84	Edward Mey	Spring	Nov. 8, 1939	f/ 257	80	7.2	(g)	253	4.4	8.0	--	10	230
87	Prosser & Walker	--	Feb. 21, 1939	--	--	--	--	--	7	11	--	--	--
88	R. A. Weathersbee	350	Apr. 20, 1938	251	63	22	2.2	254	26	12	--	.32	248
90	Mac L. Weathersbee	430	Aug. 20, 1937	--	--	--	--	326	40	40	--	0	327
93	F. W. Herbst	500/	Feb. 13, 1939	942	--	--	110	347	463	3	--	--	532
95	Do.	--	do.	h/ 431	--	--	39	430	7	39	--	.2	330
101	J. F. Beidler	618	Aug. 20, 1937	--	--	--	--	270	60	12	--	1.3	291
105	Gaebler Brothers	1,605	Apr. 15, 1938	2,551	676	67	(g)	230	1,682	10	2.3	0	1,965
106	Do.	80	do.	394	138	9.2	1.8	406	18	21	.1	5.9	383
108	Chas. Fehlis	--	Apr. 6, 1938	403	133	9.4	11	424	16	18	.1	6.5	371
109	T. J. Coopwood	--	Mar. 31, 1938	382	134	6.6	7	410	8	20	--	4.9	362
111	J. F. Beidler	--	Aug. 19, 1937	--	--	--	--	308	25	31	--	7.0	261
114	Henry Fromme	40	Apr. 12, 1938	358	116	4.7	20	388	8	17	.1	1.4	309
115	Dan Farley	35	do.	261	87	4.6	8.7	274	8	12	.2	5.6	236

b/ Precipitated iron 4.2 parts per million.

c/ Precipitated iron 2.4 parts per million.

d/ Includes 22 parts per million of silica and 0.03 parts per million of iron.

e/ Precipitated iron 6.6 parts per million.

f/ Includes 16 parts per million of silica and 0.03 part per million of iron.

g/ Less than 5 parts per million.

h/ Precipitated iron 30 parts per million.

Partial analyses of water from wells in Kinney County, Texas--Continued

Well No.	Owner	Depth (feet)	Date of collection	Total dissolved solids	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total Hardness as CaCO ₃
116	J. B. Hudson	95	Apr. 12, 1938	249	83	4.3	8.3	254	8	15	0.3	5.4	225
118	Jim Bader	135	Aug. 19, 1937	--	--	--	---	300	10	12	--	7.3	249
121	Chas. Zinsmeister	160	Apr. 1, 1938	i/380	133	7.6	5	412	8	16	.1	7.4	364
124	Gaebler Brothers	80	Apr. 15, 1938	983	273	21	62	374	64	372	0	6.9	769
125	J. F. Beidler	300	Apr. 6, 1938	432	139	10	15	418	20	39	.1	3.3	388
126	Do.	80	Apr. 7, 1938	459	137	8.6	32	476	24	23	--	.0	378
127	Jim Bader	132	Apr. 21, 1938	351	118	5.9	12	382	12	13	--	1.9	319
128	C. J. Poehler	157	Aug. 20, 1937	--	--	--	--	382	20	22	--	2.9	339
131	Ben S. Jones	33	Apr. 12, 1938	366	130	5.5	6.2	400	10	14	0	3.2	348
132	W. C. Belcher	115	Feb. 15, 1939	238	--	--	30	256	6	9.0	--	1.0	165
133	G. W. Lackey	164	Apr. 12, 1938	j/307	109	5.5	4.5	344	7	10	0	1.5	295
134	Do.	154	do.	378	78	30	26	360	38	29	--	.0	318
136	W. E. Janson	73	Apr. 7, 1938	695	175	14	51	368	194	62	--	18	495
138	Fritz Mussman	233	Aug. 19, 1937	--	--	--	--	286	125	88	--	5.4	363
141	L. B. Langston	300	Mar. 31, 1938	299	101	7.3	4	300	13	16	.1	10	282
142	V. B. Davis	50	do.	366	123	9.8	4	342	15	38	.2	7.7	348
144	J. F. Beidler	88	Apr. 7, 1938	420	132	10	15	384	28	37	0	8.7	371
146	Fred West	60	Apr. 2, 1938	495	158	11	16	442	26	54	.1	12	440
147	U. S. Army	Spring	Oct. 3, 1939	k/263	82	6.8	2.3	260	6.4	8.0	--	8.2	233
148	L. J. Niemeier	--	Aug. 19, 1937	--	--	--	--	290	500	510	--	100	585
150	Fanny Cox	90	Apr. 11, 1938	831	161	50	57	356	293	94	.6	.0	608
151	E. Webb	--	do.	581	158	13	24	280	206	37	--	5.5	448
154	Novie Henderson	300/	do.	259	84	5.3	10	270	14	12	.3	.0	232
155	Jim Clamp	300/	do.	301	--	--	29	334	3	11	.3	.0	231
157	Do.	300/	Mar. 30, 1938	--	--	--	--	--	175	85	--	--	--

i/ Precipitated iron 1.9 parts per million.

j/ Precipitated iron 2.6 parts per million.

k/ Includes 14 parts per million of silica and 0.03 part per million of iron.

Partial analyses of water from wells in Kinney County, Texas--Continued

Well No.	Owner	Depth (feet)	Date of collection	Total dissolved solids	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃
159	W. W. Nipper	280	Apr. 8, 1938	l/1,014	111	63	169	400	258	212	3.0	0.6	536
160	B. F. Orr	80	Apr. 1, 1938	429	152	7.0	6	450	12	25	.1	5.3	409
162	Fred West	80	Apr. 21, 1938	474	34	22	129	404	4	84	--	2.3	175
165	B. F. Orr	42	Aug. 19, 1937	--	--	--	--	368	75	134	--	83	357
166	E. L. Hobbs	180	Apr. 2, 1938	m/ 460	144	12	19	448	20	44	.2	.0	409
167	H. J. Toft	133	do.	464	152	12	11	444	22	43	.2	4.7	429
168	Do.	100	Apr. 4, 1938	500	128	16	43	428	40	60	--	2.6	386
170	W. W. Nipper	100-	Apr. 8, 1938	443	125	21	15	430	41	18	.4	11	399
172	John Fritter	300/	Mar. 30, 1938	n/ 267	83	12	3	262	26	12	1.7	.0	257
174	N. P. Petersen	291	June 15, 1938	--	--	--	--	--	12	16	--	22	--
177	John Fritter	--	Aug. 19, 1937	--	--	--	--	426	17	17	--	4.2	381
178	H. J. Toft	112	Feb. 25, 1938	--	--	--	--	--	--	82	--	--	--
179	Do.	312	Apr. 4, 1938	1,021	60	74	216	524	234	178	--	.5	453
180	Do.	150	do.	548	126	13	62	336	76	105	--	.46	368
182	G. A. Harrison	514	Oct. 3, 1939	1,920	448	76	36	270	1,202	25	--	.1	1,432
184	N. P. Petersen	350	June 16, 1938	--	--	--	--	--	7	18	--	3.1	--
187	G. A. Harrison	250	Apr. 21, 1938	257	86	4.3	8.3	264	10	14	--	4.7	233
189	Do.	269	May --, 1939	--	--	--	--	--	183	198	--	--	--
190	G. C. Earwood	--	Apr. 4, 1938	676	144	13	96	364	49	190	--	5.1	413
191	Do.	250	Aug. 20, 1937	--	--	--	--	472	33	53	--	8.8	423
193	R. H. Earwood	250	Aug. 18, 1937	--	--	--	--	466	30	37	--	6.8	429
198	G. A. Harrison	200	Aug. 19, 1937	--	--	--	--	182	175	23	--	2.8	327
206	Ralph Harris, Sr.	300	Apr. 11, 1938	o/ 694	159	31	56	428	104	130	.3	2.9	525
210	Ethel Whitaker	104	Aug. 18, 1937	--	--	--	--	380	15	13	--	5.7	342
218	O. R. Altizer	207	Apr. 5, 1938	3,301	127	65	1,073	558	66	1,695	--	.0	584

l/ Precipitated iron 5.2 parts per million.

m/ Precipitated iron 3.3 parts per million.

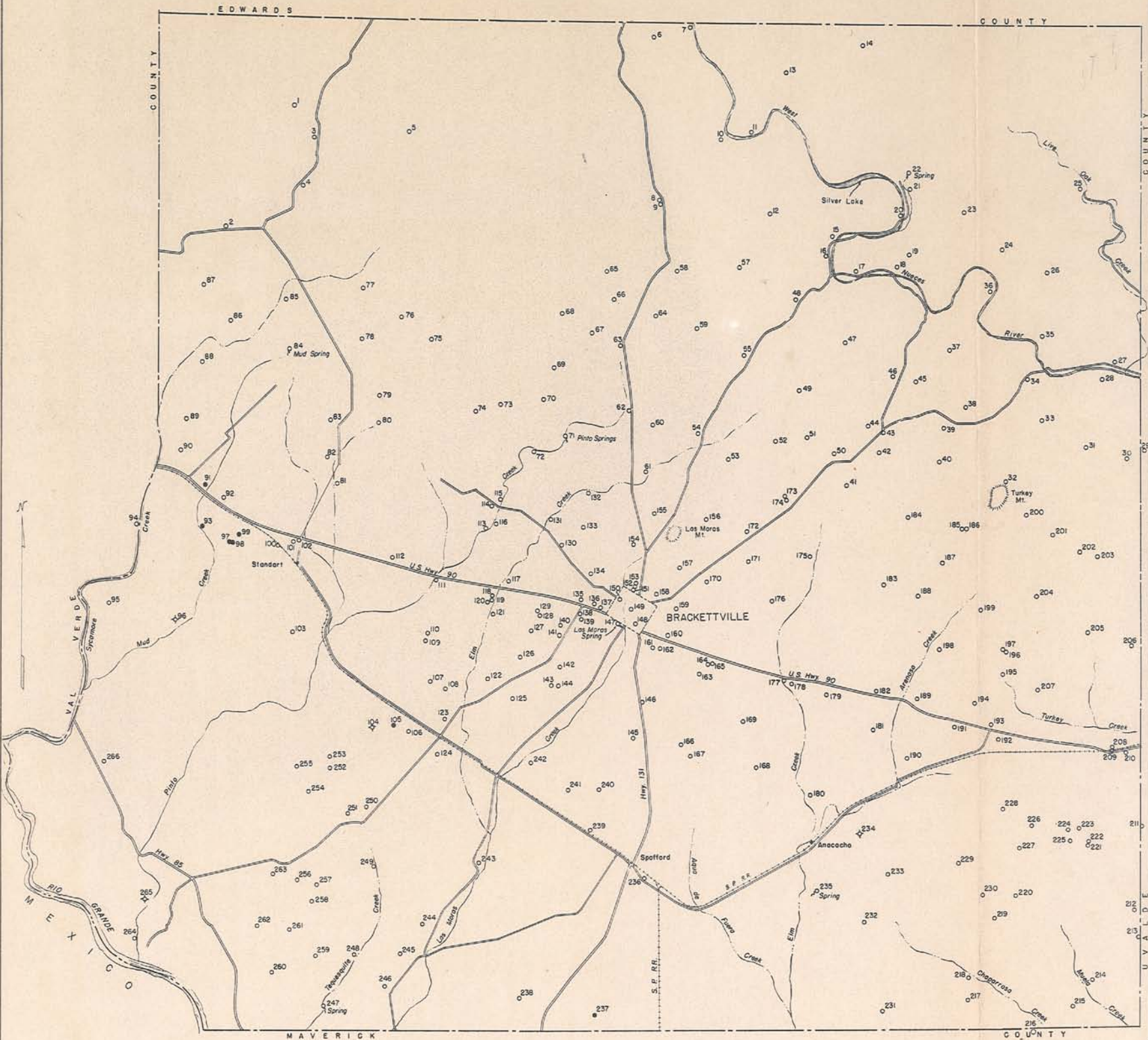
n/ Precipitated iron 2.6 parts per million.

o/ Precipitated iron 1.5 parts per million.

Partial analyses of water from wells in Kinney County, Texas--Continued

Well No.	Owner	Depth (feet)	Date of collection	Total dissolved solids	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃
219	O. R. Altizer	100	Apr. 6, 1938	439	127	10	29	398	24	45	0.2	7.6	358
227	Louis I. Farr	190	Apr. 5, 1938	619	15	4.8	238	534	26	74	1.4	2.8	57
228	Do.	152	do.	956	201	38	107	452	64	315	1.0	6.9	658
229	Do.	210	do.	537	108	16	84	504	24	54	.5	2.1	336
230	Do.	160	do.	608	45	34	154	532	24	88	1.0	.28	252
233	R. W. Morrison	--	Feb. 11, 1939	525	--	--	48	446	48	44	--	11	382
235	Do.	Spring	do.	379	--	--	30	323	14	47	--	7.5	291
236	I. N. Boycourt	--	Apr. 4, 1938	155	42	2.9	12	116	25	16	--	.16	117
237	R. R. Martin	1,100	Feb. 11, 1939	26,211	--	--	9,466	152	3	16,300	--	--	2,535
242	J. F. Beidler	75	Apr. 7, 1938	378	97	13	32	346	28	36	--	1.2	296
243	Tom Martin	20	Apr. 15, 1938	218	66	7.1	7.0	214	8	10	0	14	194
245	Guinn Williams	70	Feb. 10, 1939	442	--	--	58	372	34	46	--	7.0	285
246	W. W. Jameson	70	do.	617	--	--	97	484	58	78	--	5.6	360
250	J. H. Stadler	80	Apr. 16, 1938	402	125	8.7	19	392	16	32	.1	8.3	348
251	O. J. Koelher	82	do.	p/ 548	163	11	20	354	20	91	.1	69	453
252	Do.	70	do.	400	132	7.9	11	396	28	20	.1	5.6	362
253	John Sheedy	50-60	Apr. 15, 1938	395	129	7.9	13	392	28	20	.1	4.3	355
256	J. H. Stadler	82	Feb. 10, 1939	385	--	--	44	328	34	34	--	6.8	262
261	Do.	82	do.	375	--	--	58	218	41	76	--	10	210
266	F. W. Herbst	100	Feb. 13, 1939	608	--	--	84	405	59	113	--	5.2	375

p/ Precipitated iron 6.7 parts per million.



FIELD WORK BY
ROBERT R. BENNETT AND G.H. CROMACK

- EXPLANATION —
- NON-FLOWING WELL
 - FLOWING WELL
 - ◇ OIL TEST
 - SPRING

MAP OF KINNEY COUNTY, TEXAS SHOWING LOCATIONS OF WELLS AND SPRINGS



U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
COOPERATING WITH
TEXAS BOARD OF WATER ENGINEERS

W. H. ...