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HOWARD COUNTY, TEXAS

Records of wells, drillers' logs,
water level measurements, water analyses,
and map showing location of wells.

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WORKS PROGRESS ADMINISTRATION

GROUND WATER SURVEY

PROJECT 2091

J. Howard Samuel
Project Superintendent

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Analyses made, map prepared, data
assembled, and report mimeographed by

WORKS PROGRESS ADMINISTRATION

PROJECT 6507-5112

* * * * *

Sponsored by the State Board of Water Engineers with
the Bureau of Industrial Chemistry of The University
of Texas, and the U. S. Geological Survey cooperating.

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Austin, Texas
Apr. 10, 1937

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HOWARD COUNTY, TEXAS

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Introduction
by
Samuel F. Turner
Associate Hydraulic Engineer
U. S. Geological Survey

The purpose of this survey was to obtain information concerning existing wells and springs and the quantity and quality of water they yield, and to put down test holes where additional information was needed.

This project was part of a statewide Works Progress Administration project known as a "Statewide Inventory of Water Wells," sponsored by the State Board of Water Engineers. The Division of Ground Water of the U. S. Geological Survey cooperated in the technical direction of the project and the Bureau of Industrial Chemistry of The University of Texas furnished laboratory space and equipment and supervised the chemical analyses.

The analyses were made by chemists employed on Works Progress Administration Project 6507-5112 at Austin, Texas, sponsored by the State Board of Water Engineers. This release was typed and assembled by typists and draftsmen employed on this project.

The field work in Howard County was started on December 20, 1935, and completed on October 1, 1936. This project was Project 2091 of District 18 of the Works Progress Administration, Big Spring, Texas. J. Howard Samuell, a geologist, was project superintendent. Mr. Samuell deserves credit for his work and for the many extra hours he spent on the project. The Big Spring office of the Works Progress Administration made this work possible by their constant help and cooperation.

This release contains the well and spring records, water level measurements on numerous observation wells, well logs obtained by the project superintendent, logs of the test holes drilled by the W. F. A. labor, and the chemical analyses of water from privately owned wells and springs. Locations of all wells and springs listed are shown on the folded map in the back of the release. Both reported and measured depths of wells are given in the well records. The difference in the depths usually represents the amount of sand in the bottom of wells.

The test wells were drilled by W. F. A. labor using a soil auger, drop auger, churn drill, and a sand bucket. Samples were collected at one foot intervals by the well driller in charge of the party. The project superintendent studied these samples and compiled the logs.

Records of wells in Howard County, Texas.

(All wells are drilled unless otherwise noted in "Remarks" column)

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Water level of well (ft.) (ir.)	Height of measuring point above ground (ft.) b/
1	1½ miles south	12, SE.¼	T. 1 S. Blk. 33	City of Big Spring	--	1925	-- 239-m	72	0
2	do.	do.	do.	do.	Ramond Davidson	1925	280 176-m	6	0.9
3	do.	do.	do.	do.	do.	1925	280 243-m	6	1.4
4	do.	do.	do.	do.	do.	1926	283 214-m	12½	1.5
f/ 5	1 mile south	do.	do.	do.	do.	1926	250 --	8	--
6	2 miles south	18, NW.¼ SE.¼	T. 1 S. Blk. 32	do.	--	1925	133 131-m	8¼	1.3
f/ 7	do.	do.	do.	do.	Bob Helman	1926	135 --	10	--
f/ 8	do.	do.	do.	do.	do.	1926	130 --	6	--
9	do.	do.	do.	do.	do.	1926	140 121-m	6	1.0
f/ 9a	do.	do.	do.	do.	do.	1926	126 70-m	5	0.7
f/ 10	do.	do.	do.	do.	do.	1926	164 --	8	--
f/ 11	do.	do.	do.	do.	do.	1926	130 --	10	--
12	do.	18, SE.¼ SE.¼	do.	do.	do.	1926	130 --	8	--
13	do.	18, NW.¼ SE.¼	do.	do.	Ramond Davidson	1928	-- 88-m	8	1.7
14	do.	18, SE.¼ SE.¼	do.	do.	do.	1926	146 --	6	--
15	do.	18, NW.¼ SE.¼	do.	do.	do.	1928	138 136-m	8	1.0
16	do.	do.	do.	do.	do.	1928	160 153-m	8	1.2
17	do.	18, NE.¼ SE.¼	do.	do.	Bob Helman	1926	153 139-m	6½	0.7
f/ 17a	do.	do.	do.	do.	do.	1926	134 133-m	6½	1.5
18	do.	do.	do.	do.	do.	1926	203 153-m	8	0.8
18a	do.	do.	do.	do.	do.	1926	150 147-m	8	0.7
f/ 19	2¼ miles south	18, SE.¼ SE.¼	do.	do.	do.	1926	-- 168-m	6	0.3
19a	do.	do.	do.	do.	do.	1926	-- 172-m	6-5/8	1.7
f/ 20	do.	do.	do.	do.	do.	1928	-- 202-m	8	0.8

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

Records obtained by J. Howard Samuell, Project Superintendent.

(Chemical analyses of water from these wells are in the table of analyses.)

No.	Water Level		Pump and power c/ d/	Use of water d/ e/	Alti- tude above sea level e/	Remarks
	Depth below measur- measur- ing point (feet)	Date of measure- ment				
1	155.0	Jan. 17, 1936	None	N	2,582	Dug well boxed with timbers. Reported cost, \$60,000. Reported capacity, 75 gallons a minute
2	138.0	do.	None	N	2,586	40 feet casing at top. same as drilled well.
3	158.4	do.	None	N	2,587	Do.
4	152.3	do.	T,E, 15	P	2,587	6 feet casing at top. Pumping well. See log.
5	--	do.	None	N	2,610	No casing. Hole caved and bridged. In Big Spring City Park.
6	71.4	Feb. 5, 1936	None	N	2,644	3 feet casing at top. See log.
7	--	do.	None	N	2,655	6 feet casing at top. Hole caved and bridged.
8	--	Feb. 22, 1936	None	N	2,644	No casing. Hole caved and bridged. See log.
9	64.4	do.	None	N	2,638	Do.
9a	64.8	do.	None	N	2,639	20 feet casing at top. See log.
10	--	Jan. 22, 1936	None	N	2,645	No casing. Hole caved and bridged. See log.
11	--	do.	None	N	2,668	10 feet casing at top. Hole caved and bridged.
12	--	do.	None	N	2,673	No casing. Hole caved and bridged. Reported capacity, 20 gallons a minute.
13	79.6	Jan. 28, 1936	None	N	2,669	3 feet casing at top.
14	--	Jan. 22, 1936	None	N	2,646	10 feet casing at top. Hole caved and bridged. See log.
15	79.0	Jan. 24, 1936	None	N	2,653	3 feet casing at top. See log.
16	99.3	Jan. 28, 1936	None	N	2,671	Do.
17	68.6	Jan. 23, 1936	None	N	2,650	8 feet casing at top. See log.
17a	67.0	do.	None	N	2,650	Do.
18	93.4	Jan. 22, 1936	None	N	2,666	3 feet casing at top.
18a	94.0	do.	None	N	2,665	Do.
19	92.5	Jan. 23, 1936	None	N	2,680	5 feet casing at top.
19a	110.1	Jan. 22, 1936	None	N	2,680	Do.
20	142.2	July 20, 1936	None	N	2,716	10 feet casing at top.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.

e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.

f/ No water sample collected for analysis.

g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
f/ 21	2 miles southeast	17, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 32	City of Big Spring	--	1928	260 104-m	7	1.7
21a	do.	do.	do.	do.	--	1928	-- 137-m	6 $\frac{1}{2}$	1.1
f/ 22	1 $\frac{3}{4}$ miles southeast	17, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	Ramond Davidson	1926	180 --	6	--
f/ 22a	do.	do.	do.	do.	do.	1926	175 --	6	--
23	2 miles southeast	17, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Bob Helman	1928	-- 181-m	8	0.9
f/ 23a	do.	17, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	do.	1928	190 --	8	--
f/ 24	2 $\frac{1}{4}$ miles southeast	17, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1928	260 --	8	--
24a	2 $\frac{1}{2}$ miles southeast	17, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1928	260 --	8	--
f/ 25	do.	do.	do.	do.	R. O. Davidson	1928	260 244-in	8	1.6
f/ 26	do.	do.	do.	do.	do.	1926	260 --	8	--
27	do.	do.	do.	do.	do.	1928	-- 176-m	8	--
28	do.	do.	do.	do.	do.	1926	260 --	8	--
29	do.	17, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1928	260 248-m	8	0.8
30	do.	17, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1928	260 248-m	8	0.2
f/ 31	do.	17, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1928	260 259-m	8	0.5
32	do.	do.	do.	do.	do.	1928	260 259-m	8	0.7
33	do.	17, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Frank Knaus	1928	260 263-m	8	0.7
34	do.	17, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	Ramond Davidson	1928	260 251-m	8	0.7
34a	do.	do.	do.	do.	Frank Knaus	1936	257 236-m	8	2.5
f/ 35	do.	do.	do.	do.	Ramond Davidson	1926	260 --	8	--
36	do.	do.	do.	do.	do.	1926	260 --	8	--
f/ 37	do.	do.	do.	do.	do.	1928	260 --	8	--
38	do.	do.	do.	do.	--	1928	260 254-m	8	0.6
f/ 39	do.	do.	do.	do.	Frank Knaus	1928	260 --	8	--
f/ 40	do.	do.	do.	do.	Lem Hilburn	1928	260 --	8	2.5
40a	2 $\frac{3}{4}$ miles southeast	do.	do.	do.	do.	1934	260 --	8	--
f/ 40b	3 $\frac{1}{4}$ miles southeast	21, center west line	do.	do.	Ramond Davidson	1929	172 --	8	0

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Alti- tude above sea level e/	Remarks
	Depth below measur- ing point (feet)	Date of measure- ment				
21	99.5	Jan. 23, 1936	None	N	2,667	6 feet casing at top.
21a	100.4	do.	None	N	2,668	Do.
22	--	do.	None	N	2,678	20 feet casing at top. Hole caved and bridged.
22a	--	do.	None	N	2,679	15 feet casing at top. Hole caved and bridged.
23	127.9	Feb. 10, 1936	None	N	2,692	5 feet casing at top.
23a	--	do.	None	N	2,691	10 feet casing at top. Hole caved and bridged.
24	--	--	C,E, 7½	P	2,740	6 feet casing at top. Never fails.
24a	--	--	C,E, 7½	P	2,740	20 feet casing at top. Never fails.
25	199.1	Mar. 6, 1936	C,E, 10	P	2,754	5 feet casing at top. Never fails.
26	--	--	C,E,5	P	2,766	7 feet casing at top. Never fails.
27	--	--	None	N	2,770	8 feet casing at top. Well caved.
28	--	--	C,E,5	P	2,772	2 feet casing at top. Reported production, 30 gallons a minute.
29	218.5	Feb. 7, 1936	None	N	2,776	3 feet casing at top. Reported initial production, 75 gallons a minute. Temperature 58° F.
30	217.4	do.	None	N	2,776	Do.
31	221.2	Feb. 6, 1936	None	N	2,781	3 feet casing at top. Well cost \$1.50 a foot to drill.
32	225.4	do.	None	N	2,787	3 feet casing at top. Reported production, 30 gallons a minute when last pumped in 1930.
33	230.6	do.	None	N	2,794	3 feet casing at top. Well cleaned out with sand pump in 1936. Reported production, 30 gal-
34	206.7	Feb. 5, 1936	None	N	2,763	3 feet casing at top. Reported production, 25 gallons a minute when last pumped
34a	215.3	May 5, 1936	C,E,5	P	2,761	150 feet casing set on top of water sand. Reported production, 30 gallons a minute. in 1932.
35	--	--	C,E,5	P	2,768	6 feet casing at top. Reported production, 30 gallons a minute. See log.
36	--	--	C,E,5	P	2,773	10 feet casing at top. Reported production, 30 gallons a minute.
37	--	Feb. 5, 1936	None	N	2,776	No casing. Hole caved and bridged near top.
38	215.2	Feb. 3, 1936	None	N	2,770	3 feet casing at top. Reported capacity, 25 gallons a minute.
39	--	--	C,E,5	P	2,774	9 feet casing at top. Reported production, 30 gallons a minute.
40	230.7	Feb. 3, 1936	None	N	2,776	20 feet casing at top. Located about 10 feet north of pumping well 40a. Unused.
40a	--	--	T,E, 20	P	2,776	167 feet casing set on top of water sand. Reported production, 125 gallons a minute. Pumps
40b	226.5	Jan. 16, 1937	None	N	2,789	No casing. Located ½ mile south of pumping well 40a. dry in 8 hours. See log.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
41	2 $\frac{1}{2}$ miles southeast	16, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 32	City of Big Spring	Ramond Davidson	1928	260 256-m	8	0.1
f/ 42	2 $\frac{1}{4}$ miles southeast	do.	do.	do.	do.	1928	260 206-m	8	--
f/ 43	2 $\frac{1}{2}$ miles southeast	do.	do.	do.	do.	1926	260 --	8	--
f/ 44	do.	do.	do.	do.	do.	1926	260 --	8	--
f/ 45	2 $\frac{3}{4}$ miles southeast	do.	do.	do.	do.	1926	260 --	8	--
46	2 $\frac{1}{2}$ miles southeast	17, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1926	260 --	8	--
f/ 46a	do.	do.	do.	do.	Frank Knaus	1937	257 --	8	--
f/ 47	do.	16, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Ramond Davidson	1926	260 --	8	--
48	do.	do.	do.	do.	do.	1926	260 --	8	--
49	do.	17, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1926	260 --	8	--
50	4 $\frac{3}{4}$ miles southeast	28, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1928	320 218-m	12	1.1
51	do.	do.	do.	do.	Cecil Murdock	1930	265 174-m	13	0.7
f/ 52	do.	do.	do.	do.	Clovis McDaniel	1932	172 --	8	--
f/ 53	do.	28, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1932	362 --	8	--
53a	do.	33, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Lem Hilburn	1935	316 --	12 $\frac{1}{2}$	--
54	do.	do.	do.	do.	Clovis McDaniel	1932	303 --	8	--
55	5 miles southeast	do.	do.	do.	Ramond Davidson	1929	303 203-m	12	1.0
56	4 $\frac{3}{4}$ miles southeast	do.	do.	do.	do.	1928	313 220-m	8	1.0
f/ 57	do.	33, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Clovis McDaniel	1932	300 --	8	--
58	do.	do.	do.	do.	do.	1929	300 --	8	--
f/ 59	5 miles southeast	33, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Frank Knaus	1929	280 --	10	--
59a	do.	do.	do.	do.	do.	1929	282 --	12 $\frac{1}{2}$	--
f/ 59b	do.	do.	do.	do.	Lem Hilburn	1929	312 306-m	12	0.7
f/ 59c	do.	33, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	do.	1932	300 --	12 $\frac{1}{2}$	--
f/ 59d	do.	do.	do.	do.	Clovis McDaniel	1929	295 --	8	--
60	do.	do.	do.	do.	do.	1929	275 233-m	12	1.1

J. Howard Samuel, Project Superintendent

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>a/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
41	214.6	Feb. 5, 1936	None	N	2,771	6 feet casing at top. Reported initial production, 75 gallons a minute.
42	--	--	None	N	2,773	No casing. Hole caved. Reported production, 35 gallons a minute in 1930.
43	--	--	C,E,5	F	2,774	10 feet casing at top. Reported production, 30 gallons a minute.
44	--	--	C,E,5	P	2,777	6 feet casing at top. Reported production, 30 gallons a minute.
45	--	--	C,E,5	P	2,778	10 feet casing at top. Reported production, 30 gallons a minute.
46	--	--	C,E,5	P	2,767	18 feet casing at top. Reported production, 25 gallons a minute.
46a	--	Jan., 1937	C,E, 10	P	2,767	10 feet casing at top. Pumped daily. Reported production, 25 gallons a minute.
47	--	--	C,E,5	P	2,768	5 feet casing at top. Reported never fails.
48	--	--	C,E,5	P	2,770	12 feet casing at top. Reported production, 30 gallons a minute.
49	--	--	C,E,5	P	2,767	14 feet casing at top. Reported never fails.
50	109.2	Feb. 10, 1936	None	N	2,617	12 feet casing at top. Reported capacity, 75 gallons a minute. See log.
51	126.1	do.	None	N	2,626	3 feet casing at top. Reported capacity, 250 gallons a minute. See log.
52	--	--	T,E, 10	P	2,627	10 feet casing at top. Reported production, 125 gallons a minute. Never fails. See log.
53	--	--	T,E, 15	P	2,637	4 feet casing at top. Reported production, 175 gallons a minute. Never fails. See log.
53a	--	--	T,E, 20	P	2,625	Submersible turbine. Reported production, 200 gallons a minute. See log.
54	--	--	C,E,5	P	2,624	10 feet casing at top. Reported production, 30 gallons a minute. Never fails.
55	143.5	Feb. 12, 1936	None	N	2,628	5 feet casing at top. Reported initial production, 250 gallons a minute. See log.
56	135.2	Feb. 3, 1936	T,E, 15	P	2,628	5 feet casing at top. Reported production, 200 gallons a minute. Never fails.
57	--	--	C,E,5	P	2,631	4 feet casing at top. Reported production, 30 gallons a minute. Never fails.
58	--	--	C,E,5	P	2,639	14 feet casing at top. Reported production, 30 gallons a minute. Never fails.
59	--	Apr. 3, 1936	None	N	2,632	No casing. Crooked hole with wooden float lodged near bottom. 10 feet from pumping well
59a	--	--	T,E, 30	P	2,633	20 feet casing at top. 80 feet 10 inch <u>59a.</u> perforated liner set on bottom through water sand. Reported production, 250 gallons a minute.
59b	142.0	Apr. 4, 1936	None	N	2,632	10 feet casing at top. Reported initial production, 175 gallons a minute. Crooked hole; sands
59c	--	--	T,E, 40	P	2,637	7 feet casing at top. Reported <u>up.</u> See log. production, 250 gallons a minute. Never fails.
59d	--	Apr. 4, 1936	None	N	2,637	No casing. Hole caved and bridged. <u>See log.</u> Located 50 feet north of pumping well 59c.
60	133.1	Feb. 12, 1936	None	N	2,643	6 feet casing at top. Reported initial production, 175 gallons a minute. See log.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
61	5 miles southeast	33, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 32	City of Big Spring	Clovis McDaniel	1930	244 22'-m	12	1.0
62	4 $\frac{3}{4}$ miles southeast	33, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	1930	209 183-m	12	1.2
63	do.	33, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Clovis McDaniel	1929	267 --	8	--
64	5 miles southeast	do.	do.	do.	Ramond Davidson	1928	267 250-m	12	1.7
65	do.	do.	do.	do.	do.	1929	-- 252-m	8	1.3
f/ 66	do.	do.	do.	do.	do.	1929	200 --	8 $\frac{1}{2}$	--
f/ 67	do.	do.	do.	do.	do.	1929	198 --	8 $\frac{1}{2}$	2.2
68	4 $\frac{3}{4}$ miles southeast	28, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	1930	115 102-m	12	1.5
69	do.	27, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	1930	187 129-m	12	1.3
70	do.	do.	do.	do.	--	1930	115 84-m	10	1.2
71	5 miles southeast	33, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Clovis McDaniel	1928	152 74-m	10	0
f/ 72	5 $\frac{1}{2}$ miles southeast	33, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1929	190 --	8	--
f/ 73	do.	34, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	Frank Knaus	1930	90 --	8	--
f/ 73a	6 $\frac{3}{4}$ miles southeast	35, center west line	do.	Hardy Morgan	--	--	Spring	--	--
81	1 $\frac{1}{4}$ miles south	7, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	T. & P. R. R. Co.	T. & P. R. R. Co.	1900	-- 169-m	6-5/8	0.8
f/ 81a	2 miles south	7, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	--	--	Spring	--	--
f/ 82	1 $\frac{1}{4}$ miles south	7, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	1901	170 --	6	--
f/ 83	do.	do.	do.	do.	T. & P. R. R. Co.	1901	-- 155-m	6-5/8	1.5
f/ 84	do.	do.	do.	do.	do.	1900	-- 212-m	8	1.2
f/ 85	1 $\frac{1}{2}$ miles south	do.	do.	do.	do.	1906	-- 190-m	6	1.5
86	do.	do.	do.	do.	do.	1900	-- 193-m	10	0.7
f/ 87	1 $\frac{1}{4}$ miles south	do.	do.	do.	--	1901	175 --	6	--
f/ 88	do.	do.	do.	do.	--	1901	173 --	6	--
501	4 $\frac{3}{4}$ miles southwest	21, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 33	Mrs. G. Connelly, et al.	--	1928	80 80-m	6	0.7
502	5 $\frac{1}{2}$ miles south	27, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Wilson & Co. heirs	Jack McKinnon	1936	50 51-m	42	1.0

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
61	131.4	Feb. 13, 1936	None	N	2,644	3 feet casing at top. Reported initial production, 175 gallons a minute. See log.
62	144.1	Feb. 19, 1936	None	N	2,655	5 feet casing at top. Reported initial production, 125 gallons a minute. See log.
63	--	--	C,E,5	P	2,621	20 feet casing at top. Reported production, 30 gallons a minute. Never fails.
64	129.8	Feb. 11, 1936	None	N	2,622	5 feet casing at top. Reported initial production, 250 gallons a minute. See log.
65	130.7	Feb. 12, 1936	None	N	2,626	16 feet casing at top. Reported initial production, 250 gallons a minute.
66	--	do.	None	N	2,644	15 feet casing at top. Hole caved and bridged. Located east of creek on hilltop.
67	142.2	do.	None	N	2,642	4 feet casing at top. Reported initial production, 25 gallons a minute. See log.
68	71.2	Feb. 17, 1936	None	N	2,608	6 feet casing at top. Reported initial production, 25 gallons a minute. See log.
69	62.7	do.	None	N	2,602	51 feet casing at top. Reported initial production, 25 gallons a minute. See log.
70	57.8	do.	None	N	2,598	60 feet casing at top. Reported capacity, 25 gallons a minute. See log.
71	57.4	Feb. 12, 1936	None	N	2,660	3 feet casing at top. Reported initial production, 25 gallons a minute. See log.
72	--	Sept. 22, 1936	None	N	2,640	No casing. Hole caved and bridged. Top of hole covered by rock. Unused well. See log.
73	--	do.	None	N	2,588	No casing. Weak supply. Estimated capacity, 4 barrels a day. See log.
73a	Seep	Feb. 15, 1936	None	S	--	Weak seep. Estimated flow, 1 barrel a day. Formerly strong spring until City of Big Spring drilled wells in Section 33, 1 mile west of sink
81	159.3	Jan. 20, 1936	None	N	2,582	60 feet casing at top. Reported capacity, 30 gallons a minute.
81a	Sceep	Dec. 20, 1935	None	N	2,510	Weak seep. Before 1925 spring flowed 100,000 gallons daily. City of Big Spring and T. & P. R.R. used water. After wells were drilled and pumped in City Park 200 yards west, spring be-
82	--	Jan. 20, 1936	C,E, 10	Ind	2,585	20 feet casing at top. Pumped daily. Reported production, 30 gallons a minute. <u>came dormant.</u>
83	146.8	do.	None	N	2,584	20 feet casing at top. Reported capacity, 30 gallons a minute.
84	179.3	Jan. 21, 1936	None	N	2,632	No casing. Reported capacity, 30 gallons a minute.
85	181.0	do.	None	N	2,632	12 feet casing at top. Reported capacity, 25 gallons a minute.
86	180.1	do.	None	N	2,632	4 feet casing at top. Reported capacity, 30 gallons a minute.
87	--	Jan. 20, 1936	C,E, 10	Ind	2,586	20 feet casing at top. Pumped daily. Reported capacity, 30 gallons a minute.
88	--	do.	C,E, 10	Ind	2,586	Do.
501	73.9	Feb. 2, 1936	C,W	D,S	2,535	Salt and gypsum taste. Reported capacity, 5 gallons a minute. Drawdown, 4.4 feet after 3 hours
502	46.7	Mar. 3, 1936	C,W	D,S	2,565	Dug well. 50 feet 5-3/16 steel casing, pumping. Water turbid with salty taste. Capacity, 5 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
503	6 $\frac{1}{4}$ miles south	34, NW. $\frac{1}{4}$	T. 1 S. Blk. 33	Elbow School	--	1918	43 50-m	40	1.7
504	6 $\frac{1}{4}$ miles southwest	28, SE. $\frac{1}{4}$	do.	Mrs. G. Connally, et al.	Abe Nolan	--	55 37-m	36	0
506	6 $\frac{3}{8}$ miles south	33, NW. $\frac{1}{4}$	do.	J. C. McKinnon heirs	Cecil Murdock	1934	70 69-m	6	0
507	6 $\frac{3}{8}$ miles southwest	28, SE. $\frac{1}{4}$	do.	Mrs. G. Connally, et al.	--	1918	-- 57-m	6	0
508	7 miles southwest	32, NE. $\frac{1}{4}$	do.	I. B. Cauble	--	1900	-- 34-m	46	1.7
f/509	3 miles south	14, SE. $\frac{1}{4}$	do.	E. Springman	--	1925	94 86-m	36	1.8
510	4 $\frac{1}{8}$ miles southwest	22, NE. $\frac{1}{4}$	do.	Wilcox & Co.	--	1912	60 71-m	36	0.7
511	7 miles southwest	29, SE. $\frac{1}{4}$	do.	J. C. McKinnon heirs	--	1929	60 53-m	6-5/8	1.6
512	7 $\frac{3}{4}$ miles southwest	31, NW. $\frac{1}{4}$	do.	I. B. Cauble	--	--	75 --	6	0
513	do.	do.	do.	do.	--	--	45 51-m	6	0.9
514	8 $\frac{1}{2}$ miles southwest	36, NE. $\frac{1}{4}$	T. 1 S. Blk. 34	J. M. Coleman	--	1916	80 51-m	6 $\frac{1}{2}$	0.2
f/514a	9 $\frac{3}{8}$ miles southwest	26, SW. $\frac{1}{4}$	do.	Mable Quinn	Marland Oil Co.	1928	3,885 --	15 $\frac{1}{2}$	--
515	8 $\frac{1}{2}$ miles southwest	36, NE. $\frac{1}{4}$	do.	J. F. Ramsey	--	--	-- 34-m	6 $\frac{1}{4}$	3.1
516	9 $\frac{1}{4}$ miles southwest	43, SE. $\frac{1}{4}$	T. 1 S. Blk. 33	R. C. Reed	R. C. Reed	1925	40 42-m	36	0.6
517	11 $\frac{1}{2}$ miles south	7, SW. $\frac{1}{4}$	T. 2 S. Blk. 33	L. S. McDowell & son	--	1915	50 59-m	6	1.7
518	8 miles southwest	41, NE. $\frac{1}{4}$	T. 1 S. Blk. 33	L. A. Ford	A. B. Johnson	1905	52 45-m	10	1.6
519	6 miles south	35, SW. $\frac{1}{4}$	do.	J. C. McKinnon heirs	Cecil Murdock	1930	89 86-m	6	0.9
520	6 $\frac{1}{2}$ miles south	38, NE. $\frac{1}{4}$	do.	do.	--	1925	40 55-m	8	0.6
521	6 $\frac{3}{4}$ miles south	38, NW. $\frac{1}{4}$	do.	Mrs. F. L. Bell	--	1929	-- 68-m	8	3.6
522	7 miles southwest	33, NW. $\frac{1}{4}$	do.	J. C. McKinnon heirs	--	--	-- 39-m	8	0
523	7 miles south	33, NE. $\frac{1}{4}$	do.	J. D. McKinnon	--	1927	-- 53-m	6	1.2
524	7 $\frac{3}{4}$ miles southwest	41, NW. $\frac{1}{4}$	do.	J. B. Fickle	--	1906	40 42-m	6	0.9
525	10 miles southwest	37, SW. $\frac{1}{4}$	T. 1 S. Blk. 34	T. W. Ashley	Clovis McDaniel	1951	-- 86-m	42	0.3
526	10 $\frac{1}{2}$ miles southwest	47, NE. $\frac{1}{4}$	do.	I. B. Cauble	do.	1933	94 107-m	8	0.7

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
503	47.3	Mar. 3, 1936	C,W	P	2,635	Dug well. Reported salt and gypsum taste. Drawdown, 3 feet after 4 hours pumping 2-5 gallons a
504	35.0	do.	C,W	S	2,633	Dug well. Weak supply. Capacity, 2 gal- lons a minute. Salty taste. Unfit for drinking.
506	46.4	do.	C,W	D,S	2,641	8 feet casing at top. Flat taste. Good well. Never fails. Reported capacity, 10 gallons a
507	30.1	do.	C,W	D,S	2,600	Drawdown, 4 feet after 10 hours pump- ing 10 gallons a minute.
508	24.9	do.	C,W	D,S	2,605	Dug well. 30 feet galvanized iron casing at top. Supplies 235 head of cattle and 3 families. Re- ported capacity, 10 gallons a minute.
509	62.1	Mar. 4, 1936	C,W	D	2,609	Dug 22 feet; drilled 4 $\frac{3}{4}$ inch hole balance depth. Weak supply. 80 feet casing at top.
510	67.7	do.	C,W	D,S	2,540	Dug well. No casing. Reported capacity, 5-10 gallons a minute. 3 inch galvanized tubing.
511	32.3	do.	C,W	D,S	2,515	15 feet casing at top. Reported capacity, 5-10 gallons a minute. Flat taste.
512	63 <u>g/</u>	do.	C,W	S	2,505	20 feet casing at top. Drawdown, 3 feet after pumping 5-10 gallons a minute for 4 hours.
513	24.5	do.	C,W	D,S	2,500	45 feet casing at top. Reported capacity, 5-10 gallons a minute. Reported good water.
514	25.2	do.	C,W	D,S	2,492	20 feet casing at top. Water tastes flat. Strong supply. Reported capacity, 10 gallons a
514a	--	--	None	N	2,502	Oil test. See log. minute.
515	28.0	Mar. 4, 1936	C,W	S	2,480	20 feet casing at top. Weak supply. Reported capacity, 2 gallons a minute.
516	34.2	do.	C,W	D,S	2,530	Dug well. 8 feet brick casing at top. High wind causes drawdown of 8 feet in 15 hours.
517	51.8	do.	C,W	S	2,510	20 feet casing at top. Well located in Glass- cock County, Texas.
518	33.3	do.	C,W	D	2,530	18 feet square wood boxing at top. Weak supply. Reported water unfit for drinking.
519	60.8	Mar. 5, 1936	C,W	D,S	2,600	8 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
520	24.4	do.	C,W	D,S	2,590	5 feet casing at top. Strong supply. Near creek.
521	50.1	do.	C,W	S	2,580	20 feet casing at top. Strong supply. On creek bank. Never fails.
522	32.1	do.	C,W	D,S	2,519	10 feet casing at top. Reported capacity, 5 gallons a minute. Water tastes salty.
523	33.5	do.	C,W	D,S	2,520	10 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
524	31.1	do.	C,W	D,S	2,519	30 feet casing at top. Reported capacity, 5 gallons a minute.
525	64.4	do.	C,W	N	2,540	Dug well. Cribbed at top with concrete; no cas- ing below. Well temporarily abandoned.
526	78.7	do.	C,W	D,S	2,550	20 feet casing at top. Reported capacity, 10 gallons a minute.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.

e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.

f/ No water sample collected for analysis.

g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
527	11 miles southwest	47, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 S. Blk. 34	I. B. Cauble	Clovis McDaniel	1933	-- 30-m	8	0.7
528	10 miles southwest	38, center of section	do.	Mabel Quinn	do.	1934	-- 79-m	6	0.5
529	12 $\frac{3}{8}$ miles southwest	45, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Chas. Eberley	--	1927	60 59-m	6	0.7
530	do.	45, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	--	--	-- 50-m	6	0.3
531	do.	45, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	W. F. Fahrenkamp	--	--	55 50-m	5- 3/16	0.6
532	do.	43, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	--	-- 58-m	5	0.8
533	13 $\frac{3}{8}$ miles southwest	43, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	C. E. Talbot	--	1927	50 57-m	5	2.6
534	14 miles southwest	43, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Cleveland Newman	--	--	-- 42-m	6	1.1
535	14 $\frac{1}{4}$ miles southwest	43, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	W. G. Bailey	--	1929	-- 60-m	5	0.5
536	14 $\frac{1}{2}$ miles southwest	48, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 S. Blk. 35	T. W. Haynie	--	--	-- 41-m	36	1.0
537	14 miles southwest	37, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mildred Jones	--	--	-- 42-m	6	0.3
538	13 miles southwest	41, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 34	C. Newman	Leslie Stripling	1924	-- 47-m	8	0.9
539	do.	42, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Lomax School, Dist. 16	do.	1928	50 58-m	6	0.7
540	12 $\frac{3}{8}$ miles southwest	31, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. J. A. McDaniel	Clovis McDaniel	1935	59 56-m	8	0.9
541	12 $\frac{3}{8}$ miles southwest	41, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	C. Korne-gay Gin	C. Broders	1951	60 59-m	6	0.9
542	13 $\frac{1}{4}$ miles southwest	42, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Sam Turner	--	--	60 60-m	6	0.1
543	11 $\frac{3}{8}$ miles southwest	32, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	T. J. McIlvain	Frank Kraus	1927	58 59-m	8	1.6
544	12 miles southwest	32, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Clovis McDaniel	1925	59 --	8	1.6
545	11 $\frac{7}{8}$ miles southwest	29, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. H. Homan	Frank Kraus	1926	58 53-m	6-5/8	0.9
546	11 $\frac{1}{2}$ miles southwest	29, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Ramond Davidson	1936	63 65-m	8	2.0
547	do.	20, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mabel Quinn	Clovis McDaniel	1934	63 64-m	8	0.3
548	10 miles southwest	22, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	1900	30 16-m	8	0.6
f/548a	do.	21, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	Big Spring Production Co.	1925	3,640 --	10	--
549	8 $\frac{3}{8}$ miles southwest	23, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Clovis McDaniel	1934	50 38-m	10	0
550	8 $\frac{1}{2}$ miles southwest	23, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1934	34 34-m	6-5/8	2.1
551	11 miles southwest	22, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	1900	-- 14-m	6-5/8	2.7
552	13 $\frac{3}{8}$ miles southwest	36, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 35	A. J. Stallings	--	1927	-- 64-m	6	0.7

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
527	56.3	Mar. 6, 1936	C,W	S	2,515	20 feet casing at top. Driller reported capacity, 85 gallons a minute on test.
528	52.8	do.	C,W	S	2,550	40 feet casing at top. Reported good water. Capacity, 5 gallons a minute.
529	54.3	do.	C,W	D,S	2,360	5 feet casing at top. Irrigates 1 acre garden. Capacity, 5 gallons a minute.
530	48.6	do.	C,W	D,S	2,572	20 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
531	43.2	do.	C,W	D,S	2,571	20 feet casing at top. Water reported hard. Capacity, 5 gallons a minute.
532	49.6	do.	C,W	D,S	2,575	10 feet casing at top. Water reported hard and salty. Capacity, 5 gallons a minute.
533	37.6	Mar. 9, 1936	C,W	D,S	2,515	18 feet casing at top. Supplies 20 head of cattle. Reported strong supply.
534	29.5	do.	C,W	D,S	2,530	8 feet casing at top. Water reported hard. Reported capacity, 5 gallons a minute.
535	33.1	do.	C,W	D,S	2,540	20 feet casing at top. Supplies 13 head of cattle. Reported strong supply.
536	40.3	do.	C,W	D,S	2,550	Dug well. No casing. Fails after pumping 4 hours.
537	32.2	do.	C,W	D,S	2,556	No casing. Reported unfit for drinking. Weak supply. Reported capacity, 5 gallons a minute.
538	38.1	do.	C,W	D,S	2,502	4 feet casing at top. Strong well. Never fails. Water hard.
539	41.8	do.	C,W	P	2,504	12 feet casing at top. Supplies school with 45 students. Reported capacity, 10 gallons a minute.
540	41.1	do.	C,W	D	2,508	5 feet casing at top. Reported capacity, 10 gallons a minute.
541	43.5	do.	C,W	D,I	2,517	No casing. Never fails. Reported capacity, 5-10 gallons a minute.
542	43.3	do.	C,W	D,S	2,534	No casing. Supplies 30 head of stock. Reported never fails.
543	49.5	Mar. 10, 1936	C,W	D,S	2,470	20 feet casing at top. Drawdown, 4 feet after pumping 5 hours.
544	42.3	do.	C,W	D,S	2,475	5 feet casing at top. Reported capacity, 10 gallons a minute.
545	43.4	do.	C,W	D,S	2,578	15 feet casing at top. Supplies 37 head of stock. Never fails.
546	52.5	do.	C,W	D,S	2,480	10 feet casing at top. Supplies 40 head of stock. Never fails.
547	55.3	do.	C,W	S	2,578	3 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
548	10.5	do.	C,W	S	2,437	8 feet casing at top. Drilled in creek bed. Estimated capacity, 10 gallons a minute. This well
548a	--	--	None	N	2,480	Oil and offset well supply 5,000 head of sheep. test. See log.
549	35.1	Mar. 10, 1936	C,W	S	2,470	3 feet casing at top. Water unfit for drinking. Weak supply.
550	32.5	do.	C,W	S	2,470	10 feet casing at top. Well on Elbow Creek bank. Never fails.
551	11.7	do.	C,W	S	2,440	10 feet casing at top. Located in creek bed. Never fails. Reported salty taste.
552	55.6	Mar. 11, 1936	C,W	D,S	2,497	3 feet casing at top. Supplies J. Y. Robb place, $\frac{3}{4}$ mile northeast.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
f/552a	13 $\frac{1}{4}$ miles southwest	24, center of section	T. 1 S. Blk. 35	-- Bryce	Marland Oil Co.	1923	3,290 --	12 $\frac{1}{2}$	--
553	13 $\frac{1}{2}$ miles southwest	36, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	A. J. Stallings	Lom Hilburn	1924	-- 62-m	6	0.2
554	13 $\frac{1}{4}$ miles southwest	31, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 S. Blk. 34	L. E. Lomax Est.	--	1926	-- 60-m	10	0.8
555	13 $\frac{3}{4}$ miles southwest	36, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 S. Blk. 35	do.	--	--	-- 71-m	10 $\frac{1}{2}$	0.8
556	14 $\frac{1}{2}$ miles southwest	35, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	M. H. Connell	--	1926	-- 63-m	8	0.3
f/557	15 miles southwest	38, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Frank Stone	--	--	-- 69-m	6	1.2
558	15 $\frac{1}{4}$ miles southwest	35, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Butler Barnette	--	--	-- 67-m	10	0.8
559	13 $\frac{3}{4}$ miles southwest	37, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. C. Turner	Murdock Bros.	1925	60 60-m	8	1.0
560	do.	37, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	H. O. Phillips	Clovis McDaniel	1925	-- 57-m	8	1.1
561	13 $\frac{1}{2}$ miles southwest	42, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 S. Blk. 34	Sam Turner	--	--	-- 57-m	10	0.6
562	13 $\frac{1}{4}$ miles southwest	31, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	L. E. Lomax Est.	--	--	-- 58-m	8	0.8
563	13 miles southwest	31, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	--	-- 58-m	10	0.3
564	12 $\frac{3}{4}$ miles southwest	41, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	C. W. Newman	--	--	-- 62-m	6	1.1
565	6 $\frac{1}{2}$ miles southwest	28, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 33	Mrs. G. Connally, et al.	--	--	30 29-m	48	3.2
566	6 $\frac{3}{4}$ miles southwest	29, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. A. F. Bronaugh	--	1896	44 31-m	46	1.2
567	do.	29, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Mrs. W. J. Bronaugh	Murdock Bros.	1931	-- 43-m	6	0
568	7 miles southwest	29, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Roy Wilcox	--	--	-- 40-m	36	1.5
569	do.	19, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. E. Harding	--	--	-- 67-m	5	0.5
f/569a	6 $\frac{3}{4}$ miles southwest	do.	do.	do.	Marland Oil Co.	1927	3,188 --	15	--
570	7 $\frac{1}{4}$ miles southwest	30, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	--	-- 36-m	5	3.3
571	8 miles southwest	24, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 34	J. W. Thorp	J. W. Thorp	1930	70 --	6	0.8
572	7 $\frac{1}{2}$ miles southwest	29, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	Murdock Bros.	1930	100 98-m	5	1.3
573	7 $\frac{1}{2}$ miles southwest	24, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. O. Rosser	J. W. Thorp	1930	100 99-m	8	0.3
574	6 $\frac{1}{2}$ miles southwest	29, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. C. McKinnon	Murdock Bros.	--	42 --	8	0.5
575	5 $\frac{1}{2}$ miles southwest	17, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. F. Frazier	--	1916	-- 165-m	3-5/8	0.5
576	4 $\frac{3}{4}$ miles southwest	8, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 S. Blk. 33	A. W. Yates	--	1923	129 66-m	10	1.3
577	4 $\frac{1}{2}$ miles southwest	9, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	C. B. Whatley	Murdock Bros.	1923	-- 118-m	10	0.2

J. Howard Samuell, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
552a	--	--	None	N	2,561	Oil test. See log.
553	44.7	Mar. 11, 1936	C,W	D,S,I	2,490	No casing. Supplies 15 head of stock. Water unfit for irrigating garden.
554	45.5	do.	C,W	D,S	2,490	3 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
555	54.1	do.	C,W	D,S	2,505	3 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute.
556	50.1	do.	C,W	D,S	2,520	No casing. Water turbid. Reported capacity, 5 gallons a minute.
557	56.2	do.	C	N	2,537	3 feet casing at top.
558	43.2	do.	C,W	D,S	2,536	3 feet galvanized casing at top. Located on Howard-Martin County line.
559	41.1	do.	C,W	S	2,495	3 feet casing at top. Water unfit for drinking. Reported capacity, 5 gallons a minute.
560	38.9	do.	C,W	S	2,495	4 feet casing at top. Water unfit for drinking.
561	38.8	do.	C,W	D,S	2,500	20 feet casing at top. Reported capacity, 10 gallons a minute.
562	37.2	do.	C,W	D,S	2,507	4 feet casing at top. Reported strong supply. Never fails.
563	43.6	do.	C,W	D,S	2,502	3 feet casing at top. Drawdown, 3 feet after pumping 10 hours. Never fails.
564	46.0	do.	C,W	D,S	2,507	3 feet casing at top. Reported capacity, 5 gallons a minute.
565	27.1	Mar. 12, 1936	B,H	D,S	2,520	Dug well. Top boxed with wood. Located near Elbow Creek.
566	21.7	do.	C,W	D,S	2,502	Dug and drilled well. Reported capacity, 5-10 gallons a minute. Located on creek bank.
567	21.8	do.	C,W	D,S	2,510	5 feet casing at top. Strong supply. Located near Elbow Creek.
568	19.5	do.	C,W	D,S	2,513	Well cribbed with concrete at top. Water reported unfit for drinking.
569	39.2	do.	C,W	D,S	2,527	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
569a	--	--	--	N	2,514	Producing oil well. See log.
570	18.6	Mar. 12, 1936	C,W	D,S	2,510	20 feet casing at top. Well located on Elbow Creek bank.
571	55.5	do.	C,W	S	2,537	15 feet casing at top. Water reported unfit for drinking.
572	67.1	do.	C,W	D	2,577	10 feet casing at top. Reported capacity, 5 gallons a minute.
573	95.0	do.	C,W	S	2,607	12 feet casing at top. Water reported unfit for drinking.
574	20.8	do.	C,W	D,S	2,537	3 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
575	162.0	do.	C,W	S	2,617	160 feet steel casing, top to bottom. Bottom joint perforated. Water unfit for drinking.
576	54.3	Mar. 16, 1936	C,W	D,S,I	2,497	5 feet casing at top. Reported capacity, 5 gallons a minute.
577	102.5	do.	C,W	D,S,I	2,588	20 feet casing at top. Reported capacity, 10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
578	4 $\frac{3}{4}$ miles southwest	8, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 33	R. I. Finley	Murdock Pros.	1923	-- 124-m	6	2.6
579	5 $\frac{1}{4}$ miles southwest	8, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	H. E. Dunagan	--	--	-- 135-m	6	0.3
580	do.	8, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	A. D. Franklin	Murdock Eros.	1923	-- 135-m	5	0.8
581	5 $\frac{3}{4}$ miles southwest	7, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	T. H. Gashins	do.	1925	140 131-m	6-5/8	0.5
582	6 $\frac{1}{4}$ miles southwest	18, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	H. Cowden	do.	1935	155 134-m	6-5/8	0.7
583	6 $\frac{3}{4}$ miles southwest	18, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	E. E. Brindley	do.	1933	-- 135-m	6	0.8
584	6 $\frac{3}{4}$ miles south	33, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. C. Mc-Kinnon heirs	--	1923	45 41-m	6	0.3
585	7 miles south	40, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	A. M. Fisher	--	1900	60 72-m	6	1.7
586	do.	39, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. M. Fisher, et al.	--	1900	30 58-m	5	0.5
587	7 $\frac{1}{2}$ miles south	40, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	A. M. Fisher	Clovis McDaniel	1924	-- 73-m	5	1.7
588	7 $\frac{3}{4}$ miles south	40, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1924	-- 69-m	6	1.7
589	do.	40, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	1929	76 --	6	1.2
590	8 $\frac{1}{2}$ miles south	45, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	E. C. Hill Est.	Clovis McDaniel	1935	54 43-m	6-5/8	1.0
591	8 $\frac{3}{4}$ miles south	4, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 2 S. Blk. 33	Mrs. Eva Smith	--	1916	35 54-m	48	2.2
592	8 $\frac{1}{4}$ miles south	45, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 S. Blk. 33	R. J. Stripling	J. Stripling	1912	100 82-m	10	0.5
593	1 $\frac{1}{2}$ miles south	12, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. W. Thorp	J. T. Thorp	1925	60 46-m	6	0.4
594	2 $\frac{1}{2}$ miles south	12, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Leo Nall	--	--	-- 208-m	6	0.6
f/595	2 miles south	12, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	U. G. Powell	--	1929	115 112-m	10	1.2
596	2 $\frac{1}{2}$ miles southwest	11, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. G. Connelly, et al.	Frank Knaus	1920	170 --	5	1.0
f/596a	3 $\frac{1}{2}$ miles southwest	15, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	Merland Oil Co.	1923	4,400 --	20	--
597	2 $\frac{1}{2}$ miles south	18, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. B. Pickle	--	1920	150 147-m	5	1.8
598	3 $\frac{1}{2}$ miles south	23, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	L. B. Wright	--	--	-- 102-m	36	0.3
599	6 miles south	36, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	B. & J. M. Fisher	Clovis McDaniel	1930	60 65-m	5- 3/16	0.5
f/599a	5 $\frac{3}{4}$ miles south	36, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	The California Col	1928	3,933 --	24	--
600	7 $\frac{1}{4}$ miles south	48, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. P. Callahan	--	--	-- 113-m	6	0.2
f/601	8 $\frac{1}{2}$ miles south	2, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 S. Blk. 33	N. R. Cotter	--	--	-- 82-m	10	0.2
f/602	9 miles south	4, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Mrs. Eva Smith	Clovis McDaniel	1935	38 --	6	0
f/602a	8 $\frac{3}{4}$ miles south	45, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 33	do.	Meriwether Oil Co.	1930	3,270 --	15 $\frac{1}{2}$	--

J. Howard Samuell, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
578	105.1	Mar. 16, 1936	C,W	D,S	2,585	14 feet casing at top. Reported capacity, 5-10 gallons a minute.
579	122.2	do.	C,W	D,S	2,485	20 feet casing at top. Never fails.
580	124.1	do.	C,W	D,S	2,487	8 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
581	124.2	do.	C,W	S	2,587	10 feet casing at top. Reported capacity, 5-10 gallons a minute. Water reported unfit for do-
582	134.1	do.	C,W	D,S	2,487	7 feet casing at top. <u>domestic and stock uses.</u> Never fails.
583	123.0	do.	C,W	D,S	2,481	4 feet casing at top. Supplies 40 head of stock. Reported weak supply.
584	38.5	do.	C,W	D,S	2,567	8 feet casing at top. Reported capacity, 2-5 gallons a minute.
585	39.1	do.	C,W	D,S	2,578	20 feet casing at top. Supplies 7 head of stock. Never fails.
586	31.5	do.	C,W	D,S	2,578	No casing. Top of well covered with concrete slab. Never fails.
587	49.5	do.	C,W	D,S	2,597	20 feet casing at top. Reported capacity, 5 gallons a minute.
588	57.6	do.	C,W	D,S	2,600	10 feet casing at top. Reported never fails.
589	56. g/	do.	C,W	D,S	2,612	15 feet casing at top. Reported water tastes flat. Never fails.
590	34.6	do.	C,W	D,S	2,618	10 feet casing at top. 20 feet, 6 inch perforated on bottom. Reported strong supply.
591	51.2	Mar. 17, 1936	C,W	S	2,677	Dug well. No casing. Reported weak supply.
592	73.6	do.	C,W	D,S	2,680	20 feet casing at top. Reported capacity, 10 gallons a minute.
593	43.4	do.	C,W	S	2,507	20 feet 6 inch casing at top; 20 feet perforated liner on bottom. Reported capacity, 2-5
594	186.2	do.	C,W	D,S	2,596	20 feet casing at top. Re- <u>ported capacity, 10 gallons a minute.</u> Reported capacity, 10 gallons a minute. Near City
595	105.5	do.	C,W	D,S	2,687	3 feet casing at top. Weak supply. Re- <u>ported capacity, 2 barrels in 24 hours.</u> Park.
596	120 g/	do.	C,W	D,S	2,627	40 feet casing at top. Supplies 700 head of sheep and 100 head horses. Reported strong sup-
596a	--	--	None	N	2,575	Oil test. See log. <u>ply.</u>
597	141.3	Mar. 17, 1936	C,W	D,S	2,647	4 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
598	100.2	do.	C,W	D,S	2,661	No casing. Boxed over top with wood. Reported capacity, 2-5 gallons a minute. Weak supply.
599	47.8	do.	C,W	D,S	2,619	3 feet casing at top. Reported capacity, 5-10 gallons a minute.
599a	--	--	None	N	2,623	Oil test. See log.
600	109.2	Mar. 17, 1936	C,W	D,S,I	2,707	14 feet casing at top. Reported capacity, 5 gallons a minute. Never fails.
601	86.0	do.	None	N	2,690	2 feet casing at top. Reported weak supply.
602	14. g/	do.	C,W	D,S	2,670	No casing. Strong supply. Reported water tastes flat.
602a	--	--	None	--	2,590	Oil test. See log.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a	Diameter of well (in.) (in.)	Height of measuring point above ground (ft.) (ft.)
603	3 $\frac{1}{2}$ miles west	30, SW. $\frac{1}{4}$ SW $\frac{1}{4}$	T. 1 N. Blk. 33	W. R. Creighton	--	1914	100 96-m	6	0.7
604	3 $\frac{3}{8}$ miles southwest	4, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 33	J. T. Frazier	I. B. Gauble	--	-- 116-m	8	0.5
605	4 $\frac{1}{2}$ miles southwest	4, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Hurdock Bros.	1933	120 --	6	1.7
f/605a	do.	do.	do.	do.	Southern Oil Co.	1954	3,504 --	15	--
f/606	4 $\frac{1}{2}$ miles southwest	5, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. Cora Eley	--	--	-- 123-m	6	0.9
607	do.	9, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Mrs. Anna Coleman	--	--	129 120-m	10	0.7
608	2 miles southwest	2 NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. M. Anderson	Frank Knaus	1930	-- 118-m	6	0.8
609	1 $\frac{1}{2}$ miles west	31, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 33	Joe Flock	--	--	-- 125-m	6	0.9
610	1 $\frac{1}{2}$ miles southwest	31, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. B. Pickle	--	--	60 71-m	30	3.7
611	1 $\frac{1}{2}$ miles west	31, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	W. R. Creighton	Judge Miles	1922	110 104-m	10	0.8
f/612	1 $\frac{1}{2}$ miles west	2, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	R. T. Green	--	1928	-- 92-m	10	0.2
613	9 $\frac{3}{8}$ miles south	4, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 S. Blk. 33	S. A. Petty	--	--	-- 82-m	6	0.3
614	10 $\frac{3}{8}$ miles south	9, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	M. M. Edwards	--	--	100 --	10	0.7
615	do.	8, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	D. B. Cox	--	--	90 89-m	6	1.5
616 ^a	9 miles south	1, center SW $\frac{1}{4}$	T. 2 S. Blk. 32	A. M. Fisher	--	--	-- 237-m	5	2.4
f/616a	3 $\frac{3}{4}$ miles south	1, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 S. Blk. 33	do.	Marland Oil Co.	1927	3,850 --	20	--
617	10 miles south	4, center S. line, S. $\frac{1}{2}$	do.	T. S. Currie	--	--	-- 97-m	6	1.1
618	10 $\frac{1}{4}$ miles south	5, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	G. W. Overton	B. Shimman	1906	139 --	5	0.5
619	do.	6, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 S. Blk. 32	Am. Maracaibo Oil Co.	Am. Maracaibo Oil Co.	1928	170 --	6	0
620	12 miles south	159, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	Blk. 32	W. R. Settles	Continental Oil Co.	1927	160 --	6	0
f/620a	11 $\frac{3}{8}$ miles southeast	159, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	W. & N. W. Ry. Co., Blk. 29	do.	do.	1936	1,227 --	10	--
621	12 $\frac{1}{4}$ miles southeast	159, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	Blk. 32	do.	do.	1927	160 --	6	0
621a	do.	do.	do.	do.	do.	1927	160 --	6	--

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
603	92.6	Mar. 18, 1936	C,W	S	2,485	18 feet casing at top. Water reported unfit for drinking.
604	102.1	do.	C,W	S	2,500	100 feet casing at top. Strong supply. Reported water tastes salty.
605	107.0	do.	C,W	S	2,515	21 feet casing at top. Reported capacity, 5-10 gallons a minute. Water tastes salty.
605a	--	--	None	N	2,523	Oil test. See log.
606	110.0	Mar. 18, 1936	C,-	N	2,529	10 feet casing at top. Windmill damaged.
607	109.1	do.	C,W	D,S	2,536	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
608	106.0	do.	C,W	S	2,530	17 feet casing at top. Reported capacity, 5-10 gallons a minute. Weak supply.
609	120.5	do.	C,W	D	2,529	20 feet casing at top. Strong supply.
610	64.3	do.	B,H	D	2,513	No casing. Never fails.
611	96.2	do.	C,W	S	2,537	40 feet casing at top. Supplies 110 head of stock. Never fails.
612	78.3	do.	C,G,5	P	2,528	4 feet casing at top. Supplies swimming pool in summer.
613	79.5	Mar. 19, 1936	C,W	S	2,645	20 feet casing at top. Reported weak supply.
614	95. <u>g/</u>	do.	C,W	D,S	2,590	21 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
615	81.4	do.	C,W	D,S,I	2,577	20 feet casing at top. Never fails.
616	217.1	Mar. 23, 1936	C,W	S	2,760	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
616a	--	--	None	N	2,739	Oil test. See log.
617	80.9	Mar. 23, 1936	C,W	L,S	2,680	3 feet casing at top. Reported capacity, 5-10 gallons a minute. Strong supply.
618	139 <u>g/</u>	do.	C,W	D,S,I	2,570	No casing; concrete crib at top. Reported capacity, 5-10 gallons a minute. Irrigates garden.
619	120 <u>g/</u>	Mar. 26, 1936	C,E, 10	D, Ind,I	2,725	100 feet casing at top. Supplies oil company camp, also 12 pumping oil wells.
620	110. <u>g/</u>	do.	C,E,5	D,Ind	2,660	20 feet casing at top. Located in Glasscock County, Texas.
620a	--	--	--	--	2,656	Oil well. See log.
621	110. <u>g/</u>	Mar. 23, 1936	Air, Ng,25	D,Ind	2,650	140 feet casing at top. Continental Oil Co. has 10 pump jack wells with central power and 4 air lift wells. Reported total capacity, 6,500 gallons a day.
621a	--	--	C,Ng, 35	D,Ind	2,650	Wells located in Glasscock County; supply most of Chalk-Settles oil field.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.

e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.

f/ No water sample collected for analysis.

g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
622	9 $\frac{3}{4}$ miles south	132, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	W.&N.W. Ry. Co. Blk. 29	W. R. Settles	--	--	221-m	8	0.7
623	11 $\frac{1}{2}$ miles southeast	130, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Forsans Water Works	--	1928	285	10	0.8
624	10 $\frac{1}{4}$ miles southeast	107, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Clayton Stewart	--	1927	282-m	8	0.6
625	11 $\frac{1}{4}$ miles southeast	109, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Mrs. Dora Roberts	--	1934	196-m	8	0.6
626	11 $\frac{1}{2}$ miles southeast	129, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	1923	207	5-3/16	0
627	12 $\frac{1}{4}$ miles southeast	99, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	--	37-m	8	0.8
628	12 miles southeast	do.	do.	do.	--	--	23-m	8	1.1
629	do.	do.	do.	do.	--	--	22-m	8	0.9
630	do.	do.	do.	do.	--	--	15-m	8	1.0
631	11 $\frac{3}{4}$ miles southeast	99, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	--	12-m	48	1.0
632	12 $\frac{1}{4}$ miles southeast	98, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	--	41-m	6	1.5
633	do.	110, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	--	59-m	8	0.8
634	12 miles southeast	109, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	--	102-m	5-3/16	0.5
635	10 $\frac{3}{4}$ miles southeast	100, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	--	207	8	0.5
f/635a	11 miles southeast	100, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do. Transcontinental Oil Co.	--	1926	3,730	20	--
636	6 miles south	31, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 32	J. & B. Fisher	--	1923	108-m	6	0.8
637	13 $\frac{1}{2}$ miles southeast	136, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	W.&N.W. Ry. Co. Blk. 29	J. W. Baker	The California Co.	1929	200	8	--
638	14 $\frac{3}{4}$ miles southeast	139, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	H. R. Clay	--	1900	100	10	0
639	16 $\frac{1}{2}$ miles southeast	142, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	R. C. Sanderson	--	--	97-m	6	1.0
640	17 miles southeast	142, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	--	21-m	4 $\frac{1}{2}$	0.2
f/640a	do.	do.	do.	do.	--	--	Spring	--	--
641	18 $\frac{1}{2}$ miles southeast	149, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	E. W. Douthit	E. W. Douthit	1912	30	8	1.7
642	18 $\frac{3}{4}$ miles southeast	do.	do.	do.	--	1926	80	8	0
643	11 $\frac{1}{4}$ miles southeast	82, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. Dora Roberts	Sam Childress	1916	30	6	0.5
643a	18 $\frac{1}{4}$ miles southeast	150, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	E. W. Douthit	Joel Smith	1912	40	5 $\frac{1}{2}$	2.0
644	14 $\frac{3}{4}$ miles southeast	125, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Chalk School	--	1928	60	6-5/8	2.2
645	15 miles southeast	124, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Otis Chalk	--	1927	60	6	0.9

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Alti- tude above sea level e/	Remarks
	Depth below measur- ing point (feet)	Date of measur- ment				
622	180.8	Mar. 23, 1936	C,W	S	2,730	20 feet casing at top. Supplies 5,000 head of sheep. Strong supply.
623	233 g/	Mar. 24, 1936	C,E,W, 6	F	2,780	16 feet casing at top. Reported production, 8,400 gallons in 10 hours.
624	233.5	do.	C,W	S	--	40 feet casing at top. Reported capacity, 10 gallons a minute.
625	132.5	do.	C,W	S	2,710	12 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
626	148 g/	do.	C,W	D,S,I	2,720	14 feet casing at top. Strong supply. Never fails.
627	21.1	Mar. 25, 1936	C,W	D,S,I	2,530	3 feet casing at top. Reported capacity, 5-10 gallons a minute.
628	19.2	do.	C,W	D,S,I	2,530	3 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
629	16.2	do.	C,W	D,S,I	2,530	6 feet casing at top. Reported capacity, 5-10 gallons a minute.
630	15.1	do.	C,W	D,S,I	2,530	5 feet casing at top. Strong supply. Never fails. Formerly a spring.
631	8.5	do.	C,W	D,S	2,625	Dug well; source of water is spring. Reported capacity, 10 gallons a minute.
632	34.3	do.	C,W	S	2,520	21 feet casing at top. Never fails.
633	54.2	do.	C,W	D,S	2,538	40 feet casing at top. Reported capacity, 10 gallons a minute.
634	70.3	do.	C,W	S	2,650	4 feet casing at top. Reported capacity, 10 gallons a minute.
635	189.7	do.	C,W	S	2,745	20 feet casing at top. Reported capacity, 10 gallons a minute. Never fails.
635a	--	--	Ncne	N	2,753	Oil test. See log.
636	61.9	July 17, 1936	C,W	S	2,635	20 feet casing at top. Reported strong supply. Never fails.
637	--	--	C,Ng, 35	D,Ind	2,727	8 feet casing at top. Reported production, 400 barrels a day. See log.
638	41.3	Apr. 6, 1936	C,W	D,S	2,620	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
639	59.0	do.	C,W	S	2,515	20 feet casing at top. Never fails.
640	11.1	do.	C,W	S	2,485	21 feet casing at top. Reported capacity, 5-10 gallons a minute.
640a	Flows	do.	None	S	2,515	Near well 640, Sterling County, Texas. Estimated flow, $\frac{1}{2}$ gallon a minute from sandstone.
641	22.5	do.	C,W	D,S	2,520	20 feet casing at top. Well located in Sterling County, Texas. Reported capacity, 5-10 gallons
642	26.0	do.	C,W	D,S,I	2,520	20 feet casing at top. Well located a minute. in Sterling County, Texas. Supplies 500 head of
643	11.1	Apr. 7, 1936	C,W	S	2,510	3 feet casing at top. Never fails. sheep, 100 head of cattle and irrigates garden.
643a	38.7	Apr. 6, 1936	C,W	S	2,535	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Located in Sterling County.
644	37.1	Apr. 7, 1936	C,Ng, 35	P	2,570	Pure Oil Company pumps well with rod line. Furnishes ample supply.
645	39.7	do.	C,W	D	2,565	20 feet casing at top. Fails in drought.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
646	15 miles southeast	124, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	W.&N.W.Ry. Co. Blk. 29	Otis Chalk	Otis Chalk	1927	37 30-m	36	0.5
647	15 $\frac{1}{2}$ miles southeast	124, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	H. Whitmeyer	1927	90 80-m	6-5/8	1.0
648	do.	124, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Continental Oil Co.	1928	-- 100-m	8	1.0
f/649	16 $\frac{3}{4}$ miles southeast	93, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. T. Scott	Fuglar Oil Corp.	1935	-- 71-m	10	0.2
f/649a	do.	88, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Harry Pymen	Deep Rock Oil Co.	1925	3,202 --	15 $\frac{1}{2}$	--
650	18 $\frac{1}{2}$ miles southeast	91, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	--	1932	-- 18-m	36	2.0
651	13 $\frac{3}{4}$ miles east	29, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 30	M. H. O'Daniel	M. H. C'Daniel	1919	-- 7-m	48	0
f/651a	do.	do.	do.	do.	--	--	Spring	--	--
f/652	13 $\frac{1}{2}$ miles east	29, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	M. H. C'Daniel	1920	4 11-m	48	0
653	17 $\frac{1}{2}$ miles east	6, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Mary Foster	Brown & Currie	1934	80 72-m	6	0
f/653a	16 miles east	47, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 30	C. D. Reed	Gibson & Johnson	1929	2,955 --	12 $\frac{1}{2}$	--
654	10 $\frac{1}{4}$ miles east	58, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 31	E. C. Saunders	--	1900	-- 54-m	48	1.4
655	10 $\frac{3}{8}$ miles east	37, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	H. T. Hale	--	1900	35 35-m	35	2.0
656	10 $\frac{1}{4}$ miles east	14, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 31	Magnolia Pet. Co.	Magnolia Pet. Co.	1926	22 20-m	90	0.5
f/656a	9 $\frac{1}{2}$ miles east	11, center SW. $\frac{1}{4}$	do.	John W. Furrh	Green Oil & Ref. Co.	--	3,503 --	12 $\frac{1}{2}$	--
f/656b	8 $\frac{1}{2}$ miles east	21, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	D. A. Rhotan	--	--	Spring	--	--
657	10 $\frac{1}{4}$ miles east	14, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Magnolia Pet. Co.	Magnolia Pet. Co.	1929	-- 14-m	90	1.0
658	12 miles east	43, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 N. Blk. 30	J. P. Davis	--	--	-- 18-m	36	0
659	10 $\frac{1}{4}$ miles east	48, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 31	C. A. Cranfill	--	--	25 17-m	36	0
660	10 miles east	2, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 31	LeRoy Echols	--	--	-- 37-m	48	0
661	9 $\frac{3}{4}$ miles east	2, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Elbert Echols	--	1918	45 44-m	48	0.4
662	9 $\frac{1}{2}$ miles east	47, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 31	G. W. McGregor	Joe Crow	1934	80 72-m	36	0.3
663	7 $\frac{3}{4}$ miles east	45, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Mrs. J. B. Moore	--	--	-- 23-m	36	1.8
664	do.	4, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 S. Blk. 31	Louie Hutto	--	--	-- 63-m	36	2.3
665	do.	44, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 31	Mrs. W. S. Miller	--	--	-- 27-m	48	0.8
666	6 $\frac{1}{4}$ miles east	43, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Charles Robinson	--	--	-- 41-m	48	1.1
667	do.	6, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 31	Ray Wilcox	--	--	-- 46-m	6	1.4

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/ d/	Use of water d/ e/	Alti- tude above sea level e/	Remarks
	Depth below measur- ing point (feet)	Date of measure- ment				
646	25.7	Apr. 7, 1936	C,W	D,I	2,568	No casing. Top of well boxed with wood. Irrigates garden.
647	72.4	do.	C,W	S	2,626	40 feet casing at top. Never fails.
648	88.5	do.	C,W	S	2,680	20 feet casing at top. Strong supply.
649	69.9	Apr. 16, 1936	C,Ng, 15	Ind	2,410	35 feet casing at top. Weak supply. Reported production, 2-5 gallons a minute.
649a	--	--	None	N	2,368	Oil test. See log.
650	14.5	Apr. 16, 1936	C,W	S	2,308	Dug well. No casing. Weak supply. Near dry creek bank.
651	2.2	do.	C,W	D,S	2,350	Dug well. No casing. Well has its source from spring. Nearly fails in drought.
651a	Seeps	do.	None	S,I	2,340	Irrigates small garden. Estimated flow, 2 barrels a day from sand and gravel.
652	3.7	do.	C,W	D,S	2,350	Dug well. No casing. Covered with concrete slab. Estimated capacity, 2-5 gallons a minute.
653	67.3	Apr. 15, 1936	C,Ng, 15	Ind	--	This well and 4 more nearby pump 250 barrels a day for Dodge-Denman oil field.
653a	--	--	None	N	--	Oil test. See log.
654	44.5	Apr. 17, 1936	C,E,3	D,Ind	2,440	Dug well. No casing. Partially supplies Dodge-Denman oil field. Reported production, 30 gallons a minute. Strong supply.
655	31.5	Apr. 20, 1936	C,W	D,S	2,401	Dug well. No casing. 7 inch drawdown pumping 21 gallons a minute. Concrete curb. Reported production, 25 gallons a minute. Supplies oil camp at Jatan, in Mitchell County.
656	19.4	do.	C,O, 3C	D,Ind	2,290	Dug well. Oil engine. Concrete curb. Reported production, 25 gallons a minute. Supplies oil camp at Jatan, in Mitchell County.
656a	--	--	None	N	2,272	Oil test. See log.
656b	Flows	Apr. 20, 1936	None	S	--	Largest flowing spring in Howard County. Estimated flow, 25 gallons a minute from gravel and sand in creek bed. Reported production, 35 gallons a minute.
657	13.3	do.	C,G, 60	D,Ind	2,290	Dug well. Concrete curb. Supplies oil camp at Jatan, in Mitchell County. Reported production, 35 gallons a minute.
658	15.2	Apr. 21, 1936	C,W	D,S	2,370	Dug well. Concrete curb. Reported capacity, 5-10 gallons a minute.
659	14.0	do.	C,W	D,S,I	2,395	Dug well. No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute.
660	33.6	do.	C,W	D,S	2,400	Dug well. Concrete cribbed. Reported capacity, 5-10 gallons a minute.
661	42.6	do.	C,W	D,S	2,390	Dug well. Concrete cribbed. Strong supply. Reported capacity, 5-10 gallons a minute.
662	65.0	do.	C,W	S,I	2,410	Dug well. No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Never fails.
663	18.6	do.	C,W	D,S	2,400	Dug well. No casing. Reported capacity, 2-5 gallons a minute.
664	48.0	do.	C,W	S	2,380	Dug well. No casing. Never fails. Owner uses cistern water for drinking.
665	26.0	do.	C,W	D,S	2,410	Dug well. No casing. Estimated capacity, 5-10 gallons a minute. Never fails.
666	31.8	do.	C,W	D,S	2,430	Dug well. No casing. Never fails. Reported capacity, 5-10 gallons a minute.
667	37.1	do.	C,W	S	2,425	40 feet casing at top. Estimated capacity, 2-5 gallons a minute. Tenant uses cistern water for drinking.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
668	5 $\frac{1}{2}$ miles east	43, SW. $\frac{1}{4}$	T. 1 N. Blk. 31	Walter Robinson	--	--	75-m	6	0.8
669	11 $\frac{1}{4}$ miles east	48, SE. $\frac{1}{4}$	do.	Mrs. O. L. Williams, et al.	--	1932	14-m	48	1.5
670	11 $\frac{3}{4}$ miles east	7, SE. $\frac{1}{4}$	T. 1 S. Blk. 30	G. W. McGregor	Francisco Gonzales	1924	35 34-m	48	0
f/671	12 miles east	18, SE. $\frac{1}{4}$	do.	Eugene O'Daniel	--	--	78-m	8 $\frac{1}{2}$	0.8
672	11 $\frac{3}{4}$ miles east	24, SE. $\frac{1}{4}$	T. 1 S. Blk. 31	Bob Powell	Gulf Prod. Co.	1929	30	90	0.7
f/672a	12 $\frac{1}{2}$ miles east	do.	do.	do.	--	--	Spring	--	--
673	12 $\frac{3}{4}$ miles east	41, SE. $\frac{1}{4}$	T. 1 N. Blk. 30	C. D. Read	Thomas Hopper	1934	16-m	48	0.5
674	12 $\frac{1}{4}$ miles east	42, SE. $\frac{1}{4}$	do.	R. A. McQuerry	--	--	16-m	36	1.5
675	11 $\frac{3}{4}$ miles east	42, SE. $\frac{1}{4}$	do.	E. F. McKinney	--	1923	27-m	48	1.5
676	do.	31, NW. $\frac{1}{4}$	do.	H. D. Barron	--	--	24-m	48	2.0
677	12 $\frac{3}{4}$ miles northeast	32, NE. $\frac{1}{4}$	do.	H. T. Hale	H. T. Hale	1935	16 16-m	36	0
678	13 miles northeast	29, SE. $\frac{1}{4}$	do.	A. D. Shive	A. D. Shive	1934	19-m	36	0.5
679	12 $\frac{3}{4}$ miles east	32, NE. $\frac{1}{4}$	do.	J. C. Hale Est.	J. C. Hale Est.	1906	55 49-m	36	0.5
680	1 mile northeast	44, NW. $\frac{1}{4}$	T. 1 N. Blk. 32	L. E. Coleman	Murdock Bros.	1936	72 72-m	6-5/8	1.0
680a	1 mile east	do.	do.	do.	do.	1929	100	8	--
681	6 $\frac{1}{2}$ miles east	44, SW. $\frac{1}{4}$	T. 1 N. Blk. 31	N. G. Hoover	N. G. Hoover	1918	45 47-m	44	1.2
682	6 miles east	43, SW. $\frac{1}{4}$	T. 1 N. Blk. 32	Chas. Robinson	--	1922	55-m	8	1.3
f/682a	do.	42, center	T. 1 N. Blk. 31	W. J. Flowers	Owen-Sloan Oil Co.	1930	3,670	8 $\frac{1}{2}$	--
683	4 $\frac{3}{4}$ miles east	48, SE. $\frac{1}{4}$	T. 1 N. Blk. 32	Walter Robinson Est.	--	1918	94-m	6	1.3
684	5 miles east	1, NW. $\frac{1}{4}$	T. 1 S. Blk. 32	M. G. Riggan	A. Stripling	1927	100 96-m	5	0.5
685	4 $\frac{3}{4}$ miles east	1, SW. $\frac{1}{4}$	do.	Lillie O. Sides	--	--	30-m	8	1.0
f/685a	5 miles east	12, NW. $\frac{1}{4}$	do.	A. Richardson	Marland Oil Co.	1928	3,618	15	--
686	1 $\frac{3}{4}$ miles east	5, NE. $\frac{1}{4}$	do.	C. L. Barnes	John Thorpe	1910	126	5	1.4
687	1 $\frac{1}{2}$ miles east	5, SW. $\frac{1}{4}$	do.	Ray Wilcox	Russell & Spain	1909	145 144-m	6	0
688	2 $\frac{1}{2}$ miles southeast	9, SE. $\frac{1}{4}$	do.	do.	Jess Honey	1915	175	6	0
689	1 $\frac{1}{2}$ miles northeast	44, NE. $\frac{1}{4}$	T. 1 N. Blk. 32	Clay Read	--	--	42-m	48	1.9

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/ d/	Use of water d/ e/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
668	66.4	Apr. 21, 1936	C,W	S	2,440	15 feet casing at top. Reported capacity, 5-10 gallons a minute. Water turbid.
669	9.4	Apr. 22, 1936	C,H	D,S	2,420	Dug well. No casing. Supplies 12 head of stock. Reported capacity, 2-5 gallons a minute.
670	29. g/	do.	C,W	D,S	2,450	Dug well. No casing. Never fails. Reported capacity, 5-10 gallons a minute.
671	62.0	do.	C,W	S	2,440	10 feet casing at top. Weak supply.
672	7.8	do.	C,G, 12	Ind	2,380	Dug well. Concrete cribbed. Oil company distills water before drinking. Reported production, 30 gallons a minute.
672a	Flows	do.	None	S	2,375	Near well 672. Located in creek bed. Flows from sand above red beds.
673	9.0	Apr. 24, 1936	C,W	D,S	2,365	Dug well. No casing. Nearly fails in drought. Estimated capacity, 2-5 gallons a minute.
674	14.3	do.	C,W	S	2,366	Dug well. Brick curb. Reported capacity, 2-5 gallons a minute.
675	22.9	do.	C,W	D,S	2,405	Dug well. Concrete curb. Weak supply. Reported capacity, 2-5 gallons a minute.
676	19.1	do.	C,H	D,S	2,410	Dug well. Cribbed with wood at top. Reported capacity, 2-5 gallons a minute.
677	12.4	do.	C,G, 24	D,S	2,400	Dug well. No casing. Measured production, 5 gallons a minute after 48 hours pumping.
678	14.4	do.	C,W	D,S	2,420	Dug well. Galvanized iron casing at top. Reported capacity, 2-5 gallons a minute.
679	42.0	do.	C,W	D,S	2,405	Dug well. Concrete curb. No casing. Supplies 130 head of stock. Weak supply.
680	42.0	do.	C,Ng, 9	D,S, P,I	--	Steel casing, top to bottom. Bottom 10 feet perforated. Reported production, 30 gallons a minute.
680a	--	--	C,W	P	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
681	39.5	Apr. 27, 1936	C,W	D,S,I	2,425	Dug well. No casing. Top curbed with brick. Reported capacity, 5-10 gallons a minute. Irrigates garden.
682	44.2	do.	C,W	D,S	2,440	55 feet casing at top. Reported capacity, 5-10 gallons a minute.
682a	--	--	None	N	--	Oil test. See log.
683	90.5	Apr. 27, 1936	C,W	D,S	2,455	45 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute.
684	79.5	do.	C,W	D,S	2,435	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
685	26.7	do.	C,W	D,S	2,370	4 feet casing at top. Effluent from Big Spring passes near this well on Beal Creek.
685a	--	--	None	N	2,361	Oil test. See log.
686	106 g/	Apr. 27, 1936	C,W	D,S	2,490	20 feet casing at top. Bottom 20 feet perforated. Near creek. Reported capacity, 5-10 gallons a minute.
687	133.2	do.	C,W	D,S,I	2,520	145 feet casing; bottom 20 feet perforated. Irrigates garden. On 4 hour test, well pumped 14.9 gallons a minute.
688	110 g/	do.	C,W	S	2,521	110 feet casing at top. Reported capacity, 5-10 gallons a minute.
689	39.4	do.	C,W	S	2,425	Dug well. No casing. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.)
689a	2 $\frac{1}{2}$ miles northeast	40, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 32	M. H. Cardwell	--	--	Springs--	--	--
f/689b	2 miles east	41, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	H. C. Read	Fuhrman Pet. Co.	1928	3,275 --	15	--
690	3 miles east	46, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. G. Arnett	--	1929	-- 61-m	10	0.3
691	4 $\frac{3}{4}$ miles east	37, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Cliff Tolbert	--	--	-- 106-m	6	0.9
692	4 $\frac{1}{4}$ miles northeast	38, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Cosden Ref. Co.	Frank Knaus	1934	120 130-m	6-5/8	0.9
693	4 miles northeast	38, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	do.	1929	-- 130-m	6	1.0
694	4 $\frac{1}{4}$ miles northeast	38, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	do.	1930	140 135-m	6	1.0
695	10 $\frac{1}{2}$ miles east	36, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 31	W. P. Young	--	1928	56 51-m	5	0.8
696	11 miles northeast	36, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. M. Spears	--	1915	-- 59-m	6	1.3
697	10 $\frac{1}{4}$ miles east	35, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	W. W. Lay	--	--	-- 49-m	5	1.8
698	10 $\frac{1}{2}$ miles northeast	26, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	R. V. Guthrie	--	--	-- 38-m	36	1.2
699	10 $\frac{3}{4}$ miles northeast	23, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	W. W. Lay	--	--	-- 59-m	36	1.5
700	11 miles northeast	24, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. R. Wheeler	--	--	-- 60-m	36	1.0
701	11 $\frac{1}{2}$ miles northeast	25, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	S. B. Buchanan	--	--	-- 75-m	6	2.7
702	11 $\frac{3}{4}$ miles northeast	24, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Mrs. Kate Wolf	--	--	-- 25-m	36	0.6
703	12 miles northeast	30, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 30	Leon Moffitt	--	--	60 50-m	40	1.4
704	13 miles northeast	29, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Frank Loveless	--	1934	6 8-m	36	1.2
705	10 $\frac{1}{4}$ miles northeast	23, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 31	W. H. Robinson	--	1919	-- 72-m	8	1.6
706	9 $\frac{3}{4}$ miles northeast	22, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Rose Feeler	--	--	-- 56-m	8	1.1
707	9 $\frac{1}{2}$ miles northeast	27, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	R. V. Guthrie	--	--	-- 84-m	36	1.4
708	9 $\frac{1}{4}$ miles northeast	22, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Jas. E. Robinson	--	--	-- 48-m	36	1.7
709	4 miles northeast	38, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Cosden Ref. Co.	Cosden Ref. Co.	--	-- 99-m	6	0
710	8 $\frac{1}{2}$ miles northeast	28, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Sam Buchanan	--	1897	102 --	36	0.7
711	do.	21, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	W. C. Westfall	--	1918	100 87-m	6	0.7
712	8 $\frac{1}{4}$ miles northeast	29, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	S. F. Buchanan	--	1934	-- 53-m	8	1.4

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Alti- tude above sea level <u>e/</u>	Remarks
	Depth below measur- ing point (feet)	Date of measure- ment				
689a	Flows	Mar. 24, 1936	None	S, I	--	Irrigates 20 acres of cotton land through tile pipe system.
689b	--	--	None	N	2,446	Cil test. See log.
690	51.0	Apr. 27, 1936	C, W	D, S	2,430	20 feet casing at top. Reported flat taste. Weak supply.
691	105.2	do.	C, W	D, S	2,490	5 feet casing at top. Flat taste. Reported ca- pacity, 5-10 gallons a minute.
692	94.0	do.	C, E, 7	Ind	2,540	40 feet casing at top. Measured production, 30 gallons a minute.
693	117.0	do.	C, E, 7	Ind	2,530	21 feet casing at top. Reported production, 30 gallons a minute.
694	120. <u>g/</u>	do.	C, E, 7	Ind	2,580	130 feet casing at top. Water has acid odor. Reported production, 30 gallons a minute.
695	35.7	Apr. 28, 1936	C, W	D, S, I	2,450	20 feet casing at top. Strong supply. Irri- gates garden.
696	52.5	do.	C, W	D, S	2,460	14 feet casing at top. Reported capacity, 5-10 gallons a minute.
697	43.2	do.	C, W	D, S	2,450	20 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute.
698	34.5	do.	C, W	D, S	2,460	Dug well. No casing. Concrete crib at top. Reported capacity, 5-10 gallons a minute.
699	53.1	do.	C, W	D, S	2,480	Do.
700	54.1	do.	C, W	S	2,480	Dug well. No casing. Brick crib at top. Weak supply. Reported salty taste.
701	66.6	do.	C, W	D, S	2,470	40 feet casing at top. Reported capacity, 5-10 gallons a minute.
702	14.0	do.	C, W	D, S	2,430	Dug well. No casing. Concrete crib at top. Reported capacity, 5-10 gallons a minute.
703	47.7	do.	C, W	D, S	2,450	Dug well. No casing. Supplies 10 head of stock. Never fails.
704	3.9	do.	B, E	D, S	2,410	Dug well. Wood casing, top to bottom. Supplies 22 head of stock. Well has source from spring.
705	60.7	do.	C, W	S	2,510	4 feet casing at top. Reported unfit for drinking.
706	40.9	do.	C, W	D, S	2,510	No casing. Reported capacity, 5-10 gallons a minute. Reported flat taste.
707	74.1	do.	C, W	S	2,540	Dug well. Reported capacity, 5-10 gallons a minute. Reported unfit for drinking.
708	36.6	do.	C, W	D, S	2,540	Dug well. Brick curb. Reported capacity, 5-10 gallons a minute.
709	83.7	May 1, 1936	C, E, 3	Ind	2,450	40 feet casing at top. Discharge measured by Finch water meter, 30 gallons a minute.
710	70.7	do.	C, W	D, S	2,520	Dug well. Brick curb. Never fails.
711	55.1	do.	C, W	S	2,530	20 feet casing at top. Reported unfit for drinking.
712	30.6	do.	C, W	S	2,525	20 feet casing at top. Tenants use cistern water for drinking.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.

e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.

f/ No water sample collected for analysis.

g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township block	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
713	8 miles northeast	20, SE. $\frac{1}{4}$ SE. $\frac{1}{2}$	T. 1 N. Blk. 31	M. W. Walker	Olie Cathey	1913	70 63-m	36	1.0
714	8 $\frac{1}{2}$ miles northeast	20, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	M. W. Walker	1900	72 71-m	36	2.7
715	8 miles northeast	29, NE. $\frac{1}{4}$ NE. $\frac{1}{2}$	do.	S. D. Buchanan	Jimmie Walker	1926	-- 69-m	8	1.0
716	7 $\frac{1}{2}$ miles northeast	20, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	M. W. Walker	do.	1931	-- 78-m	6	0.6
717	7 miles northeast	30, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. W. Walker Est.	do.	1925	-- 97-m	6	1.0
718	10 $\frac{1}{4}$ miles east	38, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	E. C. Saunders Est.	--	1925	-- 65-m	5	0.6
719	1 mile east	5, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 S. Blk. 32	Lee Nuckels	Lee Nuckels	1934	130 --	8	0
719a	1 $\frac{1}{4}$ miles east	do.	do.	W. R. Settles	Frank Knaus	1926	150 --	8	--
720	7 miles northeast	19, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 31	I. W. McNew	--	--	-- 79-m	36	1.2
721	6 $\frac{3}{4}$ miles northeast	30, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. A. Walker	--	--	-- 95-m	6	1.5
722	7 $\frac{3}{4}$ miles northeast	18, SE. $\frac{1}{4}$ SE. $\frac{1}{2}$	do.	G. W. Davis	R. B. Davidson	1924	97 76-m	47	0.5
723	8 $\frac{1}{4}$ miles northeast	17, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. A. Bishop	S. R. Foster	1926	-- 69-m	40	0.7
724	8 miles northeast	20, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	E. C. Crittenden	--	--	-- 71-m	40	1.1
725	9 miles northeast	21, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	R-Bar School	--	--	-- 45-m	36	2.4
726	9 $\frac{1}{4}$ miles northeast	21, NE. $\frac{1}{4}$ NE. $\frac{1}{2}$	do.	B. F. Miller	Jas. E. Robinson	--	-- 41-m	34	1.2
727	9 $\frac{1}{2}$ miles northeast	22, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Jas. E. Robinson	do.	1901	-- 40-m	36	1.7
728	do.	15, SW. $\frac{1}{4}$ SW. $\frac{1}{2}$	do.	do.	P. D. Wilson	--	-- 34-m	36	0.2
729	9 $\frac{3}{4}$ miles northeast	16, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	R. E. Martin	--	--	-- 52-m	36	0.6
730	do.	15, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Jas. E. Robinson	--	--	-- 60-m	36	0.4
731	10 $\frac{1}{4}$ miles northeast	10, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Mrs. M. L. Musgrove	--	1926	160 167-m	6-5/8	1.2
732	do.	22, NE. $\frac{1}{4}$ NE. $\frac{1}{2}$	do.	Earl Hull	--	--	-- 57-m	6-5/8	0.2
733	do.	15, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	S. L. Hull	--	--	-- 87-m	6-5/8	0.6
734	11 $\frac{1}{2}$ miles northeast	14, SE. $\frac{1}{4}$ SE. $\frac{1}{2}$	do.	B. T. Birkhead	--	--	-- 63-m	36	0.7
735	12 miles northeast	13, SE. $\frac{1}{4}$ SE. $\frac{1}{2}$	do.	C. D. Read	--	--	98 94-m	5	2.6
736	10 miles northeast	35, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. M. Wilson	--	1926	-- 46-m	36	2.2
737	9 $\frac{1}{2}$ miles northeast	34, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	D. W. Logan	--	--	-- 79-m	6-5/8	1.1
738	8 $\frac{1}{4}$ miles northeast	33, SE. $\frac{1}{4}$ SE. $\frac{1}{2}$	do.	W. W. Lay	--	--	-- 34-m	5	3.0

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
713	58.1	May 1, 1936	C,W	D,S,I	2,560	Dug well. Concrete crib at top. Never fails. Strong supply. Irrigates garden.
714	58.9	do.	C,W	D,S,I	2,570	Dug well. Concrete curb. Irrigates garden. Reported capacity, 5-10 gallons a minute.
715	58.0	do.	C,W	D,S	2,562	12 feet casing at top. Reported capacity, 5-10 gallons a minute.
716	75.1	do.	C,W	D,S	2,580	12 feet casing at top. Weak supply. Reported flat taste.
717	77.7	do.	C,W	D,S	2,456	4 feet casing at top. Never fails.
718	44.4	do.	C,W	D,S	2,440	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
719	127 <u>e/</u>	May 7, 1936	C,G, <u>1 1/2</u>	I	--	No casing. Drilled by hand with drop auger. Reported production, 5-10 gallons a minute.
719a	--	Oct. 18, 1936	C,W	D,S,I	--	20 feet casing at top. Estimated capacity, 5-10 gallons a minute. Irrigates small garden.
720	67.7	May 18, 1936	C,W	D,S	2,458	Dug well. No casing. Never fails. Reported capacity, 5-10 gallons a minute.
721	93.4	do.	C,W	D,S	2,459	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
722	56.5	do.	C,W	S	2,462	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Reported unfit for drinking.
723	61.7	do.	C,W	D,S	2,460	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Never fails.
724	55.6	do.	C,W	D,S	2,461	Dug well. No casing. Never fails. United States Government farm.
725	26.7	do.	C,W	P	2,459	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Never fails.
726	29.2	do.	C,W	S	2,460	Dug well. No casing. Reported capacity, 5-10 gallons a minute.
727	29.6	do.	C,W	D,S	2,460	Dug well. No casing. Never fails.
728	28.0	do.	- , W	N	2,461	Dug well. No casing.
729	47.7	do.	C,W	D,S	2,468	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Never fails.
730	55.3	do.	C,W	D,S	2,470	Dug well. No casing. Reported capacity, 2-5 gallons a minute.
731	131.1	do.	C,W	D,S	2,470	75 feet casing at top. Never fails.
732	51.5	do.	C,W	D	2,468	10 feet casing at top. Reported capacity, 2-5 gallons a minute.
733	80.3	do.	C,W	D,S	2,475	20 feet casing at top. Never fails.
734	54.1	do.	C,W	D,S	2,470	Dug well. No casing. Reported capacity, 5-10 gallons a minute.
735	84.6	do.	C,W	D,S	2,470	90 feet casing at top. Reported capacity, 5-10 gallons a minute.
736	44.3	May 19, 1936	C,W	D,S	2,420	Dug well. Brick curb. Weak supply. Reported pumps dry in 3 or 4 hours.
737	63.5	do.	C,W	D,S	2,430	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
738	29.4	do.	C,W	D,S	2,421	20 feet casing at top. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
739	9 miles northeast	27, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 31	R. V. Guthrie	--	--	-- 95-m	5	0.6
740	9 $\frac{3}{4}$ miles northeast	26, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	--	-- 76-m	5	1.9
741	10 $\frac{1}{2}$ miles northeast	26, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	--	-- 42-m	36	2.5
742	do.	35, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	F. N. Shive	--	1926	-- 61-m	5	1.1
743	11 $\frac{3}{4}$ miles northeast	24, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Mrs. W. P. Young	Jim Fryer	1919	-- 45-m	40	2.6
744	12 $\frac{1}{4}$ miles northeast	18, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 30	Can Powell	--	1934	80 80-m	8	2.7
745	11 $\frac{3}{4}$ miles northeast	11, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 N. Blk. 31	S. D. Buchanan	--	--	-- 64-m	44	1.1
f/745a	12 $\frac{1}{4}$ miles northeast	12, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	W. L. Reed	E. J. Miley	1928	4,007 --	20	--
746	14 miles northeast	54, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 2 N. Blk. 27	J. W. Pyle Est.	J. M. Pyle	1915	44 43-m	5	0.2
747	13 $\frac{3}{4}$ miles northeast	54, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	C. C. Harrington	--	--	-- 51-m	5	0.4
748	14 miles northeast	53, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	W. F. Heckler	--	1909	42 44-m	40	2.3
749	14 $\frac{1}{2}$ miles northeast	53, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Alvin Walker	--	--	-- 33-m	48	0
750	16 miles northeast	46, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	A. W. Rowe	Jim Miles	1919	176 --	6-5/8	0.5
751	16 $\frac{1}{4}$ miles northeast	36, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. B. Wheat	--	--	211 195-m	6	2.1
752	16 $\frac{1}{2}$ miles northeast	46, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	C. E. Kincannon	--	--	-- 217-m	5	3.3
753	17 $\frac{1}{4}$ miles northeast	34, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Ben Brown	--	--	-- 175-m	6	1.2
754	18 miles northeast	33, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Am. Nat'l Ins. Co.	--	1927	220 219-m	5-3/8	0.5
755	do.	48, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	N. E. McMinn	--	--	-- 224-m	6	1.4
756	18 $\frac{3}{4}$ miles northeast	37, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 26	J. T. Joiner	--	--	100 86-m	6-5/8	0.8
757	18 $\frac{1}{2}$ miles northeast	33, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 27	G. H. Brown	Cliff Meyers	1916	94 90-m	6	0.9
758	19 $\frac{1}{2}$ miles northeast	36, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 26	J. L. Jones Est.	--	--	-- 204-m	6	1.6
759	20 $\frac{1}{4}$ miles northeast	8, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	H.&T.C. Ry. Co., Blk. 25	L. W. Jones	John Flanery	1912	300 261-m	5	0.5
760	20 $\frac{3}{8}$ miles northeast	10, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	M. N. Brown	Cliff Morrow	1933	226 226-m	5	1.2
761	21 miles northeast	12, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 26	J. L. Jones Est.	--	--	221 166-m	5- 3/16	1.3
762	22 miles northeast	57, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	Lavaca Navigation, Blk. 30	C. H. Rutledge	Cliff Morrow	1933	-- 225-m	6	0.7
763	23 $\frac{1}{4}$ miles northeast	58, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	E. Guffie	-- Bell	1928	-- 217-m	6-5/8	0.5
764	22 $\frac{3}{8}$ miles northeast	31, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	H.&T.C. Ry. Co., Blk. 25	do.	--	--	-- 170-m	6-5/8	1.0

J. Howard Samuelli, Project Superintendent.

No.	Water Level		Pump and power e/	Use of water d/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
739	77.4	May 19, 1936	C, W	D, S	2,435	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
740	53.4	do.	C, W	D, S	2,428	20 feet casing at top. Never fails.
741	29.4	do.	C, W	D, S	2,421	Dug well. No casing. Reported capacity, 5-10 gallons a minute.
742	47.5	do.	C, W	S	2,425	8 feet casing at top. Reported unfit for drinking.
743	41.4	do.	C, W	S	2,422	Dug well. No casing. Reported unfit for drinking. Stock will not drink water at times.
744	58.0	do.	C, W	D, S	2,425	10 feet casing at top. Never fails.
745	58.0	do.	C, W	S	2,412	Dug well. No casing. Well recently cleaned out.
745a	--	--	None	N	--	Oil test. See log.
746	39.3	May 19, 1936	C, W	S, I	2,448	10 feet casing at top. Irrigates garden. Never fails.
747	45.0	do.	C, W	S	2,455	No casing. Concrete block at top. Reported capacity, 5-10 gallons a minute.
748	42.0	do.	C, W	D, S	2,454	Dug well. No casing. Week supply. Reported pumps dry in 2 hours. Supplies 38 head of stock.
749	28.5	do.	B, H	D, S	2,455	Dug well. No casing. Top of well covered with wood. Reported capacity, 2-5 gallons a minute.
750	130 g/	do.	C, W	S	2,409	100 feet casing at top. Reported salty, unfit for drinking. Reported capacity, 5-10 gallons
751	92.3	do.	C, W	S	2,412	100 feet casing at top. Reported a minute. salty taste, unfit for drinking.
752	167.3	May 21, 1936	C, W	D, S	2,395	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Reported salty taste.
753	163.1	do.	C, W	D, S	2,394	10 feet casing at top. Reported capacity, 5-10 gallons a minute. Tastes salty.
754	52.6	June 1, 1936	C, W	S	2,386	100 feet galvanized iron casing at top. Strong supply. Tenants do not drink water.
755	83.9	do.	C, W	D, S	2,390	100 feet casing at top. Reported capacity, 5-10 gallons a minute of salty tasting water.
756	76.9	do.	C, W	S	2,390	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Owner uses cistern water.
757	82.8	do.	C, W	S	2,390	10 feet casing at top. Never fails. Reported capacity, 5-10 gallons a minute of salty tasting
758	179.0	do.	C, W	S	2,409	Estimated 100 feet casing at top. Reported salty taste. Never fails. water.
759	205.8	do.	C, W	D, S	2,410	260 feet casing. Bottom joint perforated. Reported strong supply of highly mineralized water.
760	94.2	do.	C, W	D, S	2,410	185 feet casing at top. Reported capacity, 5-10 gallons a minute with salty taste.
761	140.4	do.	C, W	D, S	2,412	100 feet casing at top. Reported salty taste. Tenants use cistern water.
762	203.5	do.	C, W	D, S	2,420	100 feet casing at top. Reported capacity, 5-10 gallons a minute with salty taste.
763	113.7	do.	C, W	S	2,411	20 feet casing at top. Never fails. Tenant uses cistern water for drinking.
764	109.4	do.	C, W	S	2,420	100 feet casing at top. Reported capacity, 5-10 gallons a minute with flat salty taste.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
765	22 miles northeast	11, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 26	J. L. Jones Est.	--	--	186-m	6	0.7
766	21 miles northeast	9, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	H.&T.C.Ry. Co., Blk. 25	Mrs. M. N. Brown	Cliff Morrow	--	300 123-m	6	0.6
767	20 $\frac{3}{4}$ miles northeast	10, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. D. Williams	--	--	89-m	6-5/8	1.7
768	21 miles northeast	28, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Texas Land & Mortgage Co.	--	--	40 50-m	6	0.9
769	20 $\frac{3}{4}$ miles northeast	28, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	Ramond Davidson	1926	67 66-m	4	0.7
770	21 miles northeast	33, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	R. T. Shaffer	do.	1933	63 63-m	8	0.5
771	21 $\frac{1}{4}$ miles northeast	33, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	H. C. Carr	1910	48 51-m	6	0.5
f/772	22 miles northeast	32, center SW. $\frac{1}{4}$	do.	J. A. Shaffer	Houston Moore	--	24 --	36	0
773	18 $\frac{3}{4}$ miles northeast	15, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Wayne Ingram	Wayne Ingram	1910	18 23-m	36	2.2
774	19 $\frac{3}{4}$ miles northeast	7, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	W. A. Reed	--	--	65 --	8	1.4
775	18 $\frac{1}{2}$ miles northeast	31, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 27	Lee Warren	--	--	-- 243-m	6	0.8
776	19 $\frac{1}{4}$ miles northeast	32, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. L. Jones Est.	--	--	-- 271-m	12	0.6
777	19 $\frac{3}{4}$ miles northeast	13, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	H.&T.C.Ry. Co., Blk. 25	F. P. Dearen	Cliff Morrow	1934	125 129-m	6-5/8	1.3
778	19 $\frac{1}{2}$ miles northeast	14, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. H. Appleton	--	--	24 22-m	36	1.7
779	16 $\frac{3}{4}$ miles northeast	21, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 27	G. W. Barber, Jr.	Frank Knaus	1930	236 233-m	6	0.5
780	do.	11, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 31	J. P. Anderson	--	--	-- 81-m	5- 3/16	2.2
781	do.	11, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	M. C. Buchanan	Cecil Murdock	1934	100 99-m	8	0.8
f/782	16 $\frac{1}{2}$ miles north	10, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	do.	1931	110 --	6	0.7
783	17 $\frac{1}{4}$ miles north	2, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Jim Moates	do.	1929	100 101-m	6	0.2
784	16 $\frac{1}{2}$ miles north	4, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. Minnie Smith	--	--	109 115-m	6	1.1
785	17 $\frac{3}{4}$ miles north	46, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 3 N. Blk. 31	G. Y. Wil- son Est.	R.G.&W.L. Wilson	1928	30 20-m	36	0.3
786	do.	do.	do.	do.	Clovis McDaniel	--	-- 224-m	8	0.9
f/787	20 $\frac{1}{2}$ miles north	34, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	R. G. Murdock	1930	575 --	6	1.5
788	15 miles north	8, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 31	Mrs. Minnie Smith	--	1930	100 99-m	5- 3/16	0.9
789	16 miles north	5, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	Ramond Davidson	1929	248 209-m	6	0.5
790	16 $\frac{3}{4}$ miles north	4, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	--	1920	50 46-m	6	1.2
791	15 $\frac{1}{4}$ miles north	14, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. P. Anderson	--	--	-- 64-m	6	0.6

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/ d/	Use of water d/ e/	Alti- tude above sea level e/	Remarks
	Depth below measur- ing point (feet)	Date of measure- ment				
765	143.5	June 2, 1936	C,W	S	2,395	100 feet casing at top. Never fails. Tenants use cistern water.
766	113.8	do.	C,W	D,S	2,398	100 feet casing at top. Reported capacity, 5-10 gallons a minute.
767	47.5	do.	C,W	D,S	2,398	4 feet casing at top. Never fails.
768	34.2	do.	C,W	D,S	2,399	3 feet tin casing at top. Never fails.
769	63.3	do.	C,W	D,S	2,401	50 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
770	53.4	do.	C,W	D,S,I	2,401	8 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
771	49.4	do.	C,W	D,S,I	2,402	6 feet casing at top. Irrigates garden. Weak supply.
772	20.0	do.	C,W	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Tenants use cistern water for
773	9.1	do.	C,W	D,S	2,410	Dug well. Concrete curb. Never fails. Strong supply during 1918 drought. drinking.
774	45 g/	do.	C,W	D,S	2,408	Dug 12 feet. Galvanized, corrugated casing. Drilled 8 inch hole to 65 feet. Weak supply.
775	168.3	do.	C,W	S	2,409	10 feet casing at top. Tenants do not drink water. Never fails. Water turbid.
776	249.7	do.	C,W	S	2,412	8 feet casing at top. Never fails. Reported salty taste.
777	89.3	June 3, 1936	C,W	S	2,409	100 feet casing at top. Never fails. Tenants use tank water for drinking.
778	6.8	do.	C,W	D,S,I	2,410	Dug well. No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Never
779	194.1	do.	C,W	S	2,450	No casing. Reported capacity, 5-10 gal- fails. long a minute of salty tasting water. Tenants
780	38.3	do.	C,W	S	2,456	50 feet casing at top. Re- drink cistern water. ported capacity, 5-10 gallons a minute.
781	87.6	do.	C,W	D,S	2,462	8 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
782	86.0	do.	C,W	N	2,462	100 feet casing at top. Weak supply.
783	94.0	do.	C,W	D,S	2,465	18 feet casing at top. Drawdown, 7 feet after pumping 30 minutes. Weak supply.
784	105.4	do.	C,W	L,S,P	2,472	No casing. Reported capacity, 5-10 gallons a minute. Supplies Morris School.
785	13.2	do.	C,W	L,S,I	2,445	Dug well. Brick crib at top. Reported capacity, 5-10 gallons a minute. Irrigates garden.
786	190.3	do.	C,W	S	2,455	No casing. Reported unfit for drinking. Never fails.
787	190. g/	do.	C,W	S	2,478	150 feet casing at top. Located in Borden County. Reported salty water unfit for drinking.
788	95.2	June 4, 1936	C,W	S	2,460	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
789	198.1	do.	C,W	S	2,460	100 feet casing at top. Reported capacity, 2-5 gallons a minute. Never fails.
790	45.7	do.	C,W	D,S	2,450	No casing. Weak supply. Reported pumps dry in 4 hours.
791	54.0	do.	C,W	S	2,470	No casing. Strong supply. Never fails.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
792	14 $\frac{1}{2}$ miles north	16, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 2 N. Blk. 31	E. R. Gideon	--	--	-- 124-m	8	1.2
793	14 $\frac{3}{4}$ miles north	7, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	C. B. Lawrence	--	--	-- 135-m	6	0.3
794	13 $\frac{1}{2}$ miles north	16, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	W. M. Read	--	--	140 --	8	0.5
795	13 miles north	17, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	G. J. Couch	--	1895	140 148-m	6	0.3
796	12 $\frac{3}{4}$ miles north	24, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 32	J. F. Heckler	J. Wright	1906	150 --	4	0.8
797	13 $\frac{1}{4}$ miles north	13, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Lewis Underwood	--	1926	140 140-m	5- 3/16	0.8
798	12 $\frac{3}{4}$ miles north	23, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	L. F. Lawrence	Childress & McWhorter	1907	170 144-m	6	0.5
799	13 $\frac{1}{2}$ miles north	13, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	G. W. Keel	Leo Nall	1906	130 141-m	6	1.2
800	13 $\frac{3}{4}$ miles north	14, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. A. Wasson	--	--	140 148-m	6	0.7
801	14 miles north	12, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Arch. C. Ginsley	Frank Knaus	1925	158 --	10	0.5
802	14 $\frac{1}{4}$ miles north	11, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Bill Poe	--	--	-- 143-m	5- 3/16	1.1
803	14 $\frac{3}{4}$ miles north	11, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Gay Hill School	--	--	-- 159-m	5- 3/16	0.9
804	15 miles north	2, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. Laura Simpson	--	1894	160 --	6	0
805	16 $\frac{1}{4}$ miles north	48, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 3 N. Blk. 32	do.	--	--	-- 149-m	6	1.0
806	16 miles north	48, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	M. C. Hayden	--	--	-- 160-m	8	0.7
807	do.	46, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Edward Simpson	Ramond Davidson	1934	172 171-m	6	0.6
808	13 $\frac{3}{4}$ miles north	11, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 32	Tom Spencer	Frank Knaus	1926	172 152-m	6	0.9
809	16 $\frac{3}{4}$ miles north	39, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 3 N. Blk. 32	E. Clanton	--	--	-- 68-m	8	1.2
810	17 $\frac{1}{4}$ miles north	38, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	S. L. Lockhart	Murdock Eros.	1927	-- 68-m	6	1.7
811	18 miles north	35, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	H. H. Harland	--	--	50 --	5	0.9
812	16 $\frac{1}{4}$ miles north	40, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Akin Simpson	--	--	-- 159-m	6	0.7
813	15 miles north	3, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 32	J. W. Nix	B. Jones	1925	160 --	6	0.5
814	14 $\frac{3}{4}$ miles north	3, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	A. W. Nix Est.	Ruppert Russell	1922	160 --	4	1.0
815	14 $\frac{1}{2}$ miles north	9, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. L. Scott	--	--	170 --	5	0.8

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
792	80.0	June 4, 1936	C,W	D,S	2,490	No casing. Drawdown, 4 feet after pumping 8 hours. Never fails.
793	126.4	do.	C,W	D,S	2,490	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
794	131.3	June 5, 1936	C,W	D,S	2,470	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
795	93.5	do.	C,W	D,S	2,470	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
796	125 g/	do.	C,W	f,S,I	2,473	150 feet casing. Bottom 20 feet perforated. Irrigates garden. Strong supply.
797	133.7	do.	C,W	D,S,I	2,475	136 feet casing at top. Irrigates garden. Never fails.
798	137.1	do.	C,W	D,S	2,479	No casing. Strong supply. Reported capacity, 5-10 gallons a minute. Located in town of Luth-
799	133.0	do.	C,W	D,S,I	2,480	20 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute. er.
800	120.0	do.	C,W	D,S,I	2,480	No casing. Irrigates garden. Never fails. Reported capacity, 5-10 gallons a minute.
801	146.0	do.	C,W	D,S,I	2,581	20 feet casing at top. Irrigates garden. Never fails.
802	122.7	do.	C,W	D,S,I	2,488	10 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
803	135.5	do.	C,W	P	2,490	20 feet casing at top. Never fails. Reported strong supply.
804	148.0	do.	C,W	D,S,I	2,595	150 feet casing at top. Irrigates garden. Never fails.
805	144.1	do.	C,W	S	2,490	4 feet casing at top. Reported capacity, 5-10 gallons a minute.
806	137.0	do.	C,W	D,S,I	2,495	No casing. Irrigates garden. Strong supply. Never fails.
807	147.0	do.	C,W	D,S,I	2,495	165 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
808	141.3	June 9, 1936	C,W	D,S,I	2,472	50 feet casing at top. Irrigates garden. Hole caved 20 feet at bottom.
809	59.6	do.	C,W	D,S	2,458	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
810	56.4	do.	C,W	D,S	2,460	6 feet casing at top. Strong supply. Never fails.
811	34.1	do.	C,W	D,S	2,445	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
812	153.3	do.	C,W	D,S,I	2,485	10 feet casing at top. Irrigates garden. Never fails.
813	148.0	do.	C,W	D,S,I	2,485	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
814	152.0	do.	C,W	D,S	2,488	157 feet casing. Bottom 20 feet perforated. Reported capacity, 5-10 gallons a minute.
815	150.0	do.	C,W	D,S	2,490	100 feet casing at top. Reported capacity, 5-10 gallons a minute.

d/ I, irrigation; P, public; Ind, industrial; L, domestic; S, stock; N, not used.

e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.

f/ No water sample collected for analysis.

g/ Water level reported.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
816	13 ³ / ₄ miles north	10, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 32	R. C. Oliver	Frank Knaus	--	175 159-m	6	1.3
817	13 miles north	16, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. S. Proctor	--	--	144-m	8	0.8
818	12 ¹ / ₄ miles north	22, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Williams & Miller Gin Co.	Frank Knaus	1955	164 152-m	6	0.6
819	12 miles north	21, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Sid Oliver	--	--	160 --	6	0
820	10 ³ / ₄ miles north	27, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	W. R. Puckett	--	--	105-m	8	1.2
821	10 ¹ / ₄ miles north	33, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	O. J. Brown	Tom McWhorter	1908	112 127-m	6	0.6
822	9 ³ / ₄ miles north	39, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. B. Ryan	--	--	141-m	6	0.8
823	11 miles north	27, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	W. B. Puckett	--	--	115 --	6	0.8
824	11 ¹ / ₄ miles north	26, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Atlas Life Ins. Co.	--	--	120 --	6	0.5
825	11 ³ / ₄ miles north	25, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Mrs. Florence Jones	J. Shipman	1934	140 119-m	6	0.6
826	9 ¹ / ₂ miles north	38, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	H. S. Miller	--	--	140 129-m	6	0.5
827	8 ³ / ₄ miles north	46, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. C. Brooks	--	1906	130 117-m	8	0.8
828	8 ¹ / ₄ miles north	47, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Mrs. W. B. Sneed	Jimmie Walker	1928	115 113-m	5	0.9
829	8 ¹ / ₂ miles north	1, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 32	Elmer Terry	--	--	114-m	6	1.1
830	9 miles northeast	6, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Geo. McCreagor	--	--	46-m	40	0.9
831	9 ¹ / ₂ miles northeast	35, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 31	Guy Wallace	Ramond Davidson	1935	100 84-m	5	0.7
832	3 miles north	29, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 32	T. F. Nabors	--	--	66-m	6	2.7
f/832a	3 ³ / ₄ miles north	2C, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	A. G. Haynes	Marland Cil Co.	1927	3,440 --	20	--
833	5 ¹ / ₂ miles north	17, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	A. C. Brigance	--	--	161-m	6	1.0
f/834	7 ¹ / ₂ miles north	44, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 32	J. M. Cross	--	--	123-m	6	0.7
835	8 miles north	48, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Mrs. W. T. Reed	Murdock Bros.	--	158-m	36	0
836	10 miles north	36, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Ed Muriel	--	--	103-m	5	2.2
837	11 ¹ / ₄ miles north	19, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Mrs. M. J. Bogard	--	--	152-m	8	0.8
838	13 ¹ / ₂ miles north	12, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 2 N. Blk. 33	W. M. Reidy	--	--	149-m	5	2.2
839	16 miles north	42, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 3 N. Blk. 32	Lone Star Land Co.	--	--	159-m	5-5/8	1.2
840	17 ¹ / ₄ miles north	31, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	H. A. Pace	--	--	175-m	6	0.8
841	18 ¹ / ₄ miles north	30, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	F. H. McKee	Bill Kinkaid	1925	102-m	6	2.0

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/ d/	Use of water d/ e/	Alti- tude above sea level e/	Remarks
	Depth below measur- ing point (feet)	Date of measur- ment 1936				
816	165 g/	June 9, 1936	C, W	D, S, I	2,490	No casing. Strong supply. Irrigates garden.
817	139.5	do.	C, W	D, S	2,486	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
818	127.7	do.	C, W	D, S, Ind	2,488	160 feet casing. Bottom 20 feet perforated. Supplies cotton gin. Reported capacity, 5-10
819	140 g/	do.	C, W	N	2,487	No casing. Tape stopped at 120 feet. Hole caved at bottom.
820	86.6	do.	C, W	D, S, I	2,485	50 feet casing at top. Irrigates garden. Reported capacity, 5-10 gallons a minute.
821	122.0	June 10, 1936	C, W	D, S, I	2,478	No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Never fails.
822	111.7	do.	C, W	D, S	2,470	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
823	101 g/	do.	C, W	D, S, I	2,470	115 feet casing. Bottom 20 feet perforated. Irrigates garden. Reported capacity, 5-10 gal-
824	60 g/	do.	C, G, 2 1/2	I	2,475	No casing. Irrigates 5 acres. Strong supply. Trawdown, 4 feet after pumping
825	114.7	do.	C, W	D, S, I	2,474	No casing. Irrigates garden. Reported capacity, 5-10 gallons a minute. Report-
826	121.6	do.	C, W	D, S, I	2,476	8 feet casing at top. Irrigates garden. Never fails.
827	108.0	do.	C, W	D, S, I	2,480	Do.
828	108.1	do.	C, W	D, S, I	2,479	20 feet casing at top. Irrigates garden. Never fails.
829	105.8	do.	C, W	D, S	2,478	No casing. Weak supply. Reported capacity, 2-5 gallons a minute.
830	43.2	do.	C, W	D, S	2,472	Dug well. No casing. Weak supply. Reported capacity, 2-5 gallons a minute.
831	85 g/	do.	C, W	D, S	2,475	No casing. Reported capacity, 2-5 gallons a minute. Never fails.
832	53.3	Sept. 1, 1936	C, W	D	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
832a	--	--	None	N	--	Cil test. See log.
833	143.7	Sept. 1, 1936	C, W	S	--	5 feet casing at top. Reported capacity, 5-10 gallons a minute.
834	118.0	do.	C, W	S	--	No casing. Reported capacity, 5-10 gallons a minute. Trawdown, 1 foot after pumping 2 hours.
835	71.6	do.	C, W	I, S	--	No casing. Well dug 83 feet. Bottom 75 feet, 8 inch drilled hole. Weak supply.
836	51.5	do.	C, W	D, S	--	50 feet casing at top. Reported capacity, 5-10 gallons a minute.
837	110.0	do.	C, W	D, S, I	--	10 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
838	144.0	do.	C, W	D, S	--	7 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
839	102.0	do.	C, W	D, S	--	20 feet casing at top. 20 feet perforated liner at bottom. Caved at bottom. Reported strong
840	146.0	do.	C, W	I, S	--	20 feet casing at top. Reported strong supply until 1935. Reported capacity, 5-10 gallons a minute.
841	97.0	do.	C, W	D, S	--	80 feet casing at top. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
842	18 $\frac{1}{2}$ miles north	25, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 3 N. Blk. 33	J. F. Winnan	--	--	-- 99-m	5	1.3
843	19 miles northwest	28, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	C. E. West	Lud Boland	1924	144 141-m	5	0.5
844	19 $\frac{3}{4}$ miles northwest	19, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	G. T. Palmer	--	1922	135 134-m	6	1.4
845	6 $\frac{1}{2}$ miles north	6, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 1 N. Blk. 32	Ray Smith	--	--	-- 56-m	6	1.4
846	do.	6, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Earl Phillips	--	--	-- 48-m	8	1.0
f/847	12 $\frac{1}{4}$ miles north	13, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 33	Hariet Wharteen	--	1936	-- 79-m	8	0
848	15 $\frac{1}{4}$ miles north	47, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 3 N. Blk. 33	C. O. Robertson	--	--	-- 137-m	6	1.0
849	16 $\frac{1}{2}$ miles north	39, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Rosetta Blackburn	--	--	-- 119-m	6	1.0
850	17 $\frac{1}{2}$ miles northwest	34, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	R. H. Quinn	--	--	-- 120-m	6	1.4
851	18 $\frac{1}{4}$ miles northwest	28, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	I. W. Rogers	Judd Miles	1926	114 110-m	6	1.2
852	18 $\frac{3}{4}$ miles northwest	30, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mary Graham	--	--	-- 120-m	6	0.7
853	do.	36, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 3 N. Blk. 34	Soash School	J. Morrow	1929	122 109-m	6	1.1
854	19 $\frac{1}{2}$ miles northwest	26, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Bill Bass	--	--	-- 102-m	6	0.7
855	19 $\frac{3}{4}$ miles northwest	25, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	T. J. Connor	--	1918	140 92-m	6	0.8
856	20 miles northwest	24, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Ed Lauderdale	--	1936	-- 128-m	6	0.4
857	20 $\frac{3}{4}$ miles northwest	13, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Mrs. Mary E. Hubner	B. Harris	1910	-- 168-m	6	0.8
858	20 $\frac{1}{4}$ miles northwest	20, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 3 N. Blk. 33	Henry Riley	--	1927	140 133-m	6-5/8	1.0
859	17 $\frac{1}{2}$ miles northwest	42, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	R. N. Adams	--	--	-- 129-m	6	1.3
860	16 $\frac{1}{2}$ miles northwest	40, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Delia S. Wright	--	--	116 118-m	8	1.2
861	15 $\frac{3}{4}$ miles northwest	44, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	--	-- 68-m	4	1.5
862	15 $\frac{1}{2}$ miles northwest	46, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Albert Fisher	--	--	-- 91-m	6	0.3
863	do.	5, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 33	R. A. E. Shortes	--	--	-- 93-m	36	0.5
864	16 $\frac{1}{2}$ miles northwest	48, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 3 N. Blk. 34	H. L. Batton	--	--	-- 55-m	6	3.7
865	17 $\frac{1}{4}$ miles northwest	46, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	P. E. Foster	--	--	-- 70-m	4 $\frac{1}{2}$	0.7
866	16 $\frac{1}{4}$ miles northwest	2, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 34	W. G. Page	--	--	-- 63-m	5	1.6
867	15 $\frac{1}{2}$ miles northwest	11, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	Willis Page	--	--	-- 57-m	6	0.7
868	14 $\frac{1}{2}$ miles northwest	18, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	West-Knott School	V. R. Hughes	1935	-- 66-m	6	3.1

J. Howard Samuell, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
842	93.0	Sept. 1, 1936	C,W	P	--	4 feet casing at top. Supplies town of Vealmore. Reported capacity, 5-10 gallons a minute.
843	123.0	do.	C,W	D,S	--	26 feet casing at top. Never fails. Weak supply.
844	120.0	do.	C,W	D,S	--	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
845	53.6	Sept. 2, 1936	C,W	D,S	--	Do.
846	44.7	do.	C,W	S	2,630	No casing. Reported capacity, 5-10 gallons a minute. Reported unfit for drinking.
847	76.2	do.	C,W	S	--	No casing. Weak supply. Reported capacity, 2-5 gallons a minute.
848	129.2	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
849	108.0	do.	C,W	D,S	--	40 feet casing at top. Reported capacity, 2-5 gallons a minute. Strong supply.
850	116.2	do.	C,W	D,S	--	2 feet casing at top. Reported capacity, 2-5 gallons a minute.
851	106.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
852	113.0	do.	C,W	S	--	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
853	98.0	do.	C,W	P	2,764	20 feet casing at top. 20 feet perforated at bottom. Reported capacity, 2-5 gallons a minute.
854	100.0	do.	C,W	S	--	No casing. Estimated capacity, 2-5 gallons a minute. Drawdown, 1 foot after pumping 4 hours.
855	85.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Never fails.
856	120.0	do.	C,W	S	--	No casing. Reported capacity, 2-5 gallons a minute. Never fails.
857	132.0	do.	C,W	D,S	2,751	20 feet casing at top. 20 feet perforated liner at bottom. Strong supply.
858	105.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Strong supply.
859	106.0	do.	C,W	D,S	2,747	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
860	112.0	do.	C,W	D,S	--	3 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
861	47.5	Sept. 3, 1936	C,W	S	2,679	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Located on creek bank.
862	84.5	do.	C,W	S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
863	77.0	do.	C,W	D,S	--	Dug well. Concrete crib at top. Well cleaned out Sept. 2, 1936. Strong supply.
864	46.3	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
865	51.3	do.	C,W	S	--	60 feet casing at top. Reported unfit for drinking. Weak supply.
866	41.2	do.	None	N	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
867	52.5	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Never fails.
868	62.0	do.	C,W	P	2,597	60 feet casing. Bottom joint perforated. Strong supply. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
869	14 miles northwest	18, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 2 N. Blk. 34	City of East-Knott	--	--	-- 68-m	6	0
870	do.	13, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. W. Neil heirs	--	--	-- 34-m	36	0
871	13 $\frac{3}{4}$ miles northwest	19, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	S. C. Gist	Murdock Bros.	1930	54 50-m	6	3.2
872	14 miles northwest	8, SW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 33	M. G. Walker	--	--	-- 22-m	36	1.5
873	15 miles northwest	5, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	M. Gonzales	--	--	-- 71-m	5	0.6
874	15 $\frac{3}{4}$ miles northwest	1, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 2 N. Blk. 34	S. A. Johnson	--	--	-- 44-m	40	2.4
875	15 miles northwest	12, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	G. H. Shorter	--	--	-- 51-m	6	1.2
876	12 $\frac{1}{2}$ miles northwest	20, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 33	J. T. McCauley	--	--	-- 28-m	40	3.4
877	10 $\frac{1}{4}$ miles northwest	42, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	E. C. Witt	--	--	-- 20-m	36	2.5
878	8 $\frac{1}{2}$ miles northwest	46, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	R. B. Cline	--	--	-- 71-m	42	1.0
879	8 $\frac{3}{4}$ miles northwest	39, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. H. Hanks	--	--	-- 24-m	42	3.4
880	10 $\frac{1}{2}$ miles northwest	33, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Viola McGinnis	--	--	-- 20-m	36	3.0
881	11 $\frac{1}{2}$ miles northwest	28, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	C. A. Burk	--	--	-- 22-m	40	2.7
882	9 $\frac{1}{2}$ miles northwest	44, NW. $\frac{1}{4}$ NE. $\frac{1}{2}$	do.	W. S. Martin	--	--	-- 11-m	48	0.7
f/882a	do.	41, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	Brown, Cady, 1928 & Dornelly	1928	3,390 --	6-5/8	--
883	10 $\frac{1}{4}$ miles northwest	43, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. West	--	--	-- 23-m	36	2.5
884	11 $\frac{1}{4}$ miles northwest	25, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Lester Fisher	--	--	-- 39-m	5	3.7
885	12 $\frac{1}{4}$ miles northwest	40, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	Bauer & Cockrell, Blk. A	B. E. Free	--	--	-- 47-m	36	2.0
886	12 $\frac{3}{4}$ miles northwest	22, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 33	J. A. Peugh	--	--	-- 50-m	6	4.4
887	13 $\frac{1}{2}$ miles northwest	49, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	Bauer & Cockrell, Blk. A	Lee Cole	--	--	-- 57-m	36	0.3
888	14 $\frac{3}{4}$ miles northwest	16, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. G. Nickles	--	--	-- 69-m	46	2.2
889	13 $\frac{3}{4}$ miles northwest	18, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 34	T. A. Gaskins	--	--	-- 60-m	40	0
890	12 $\frac{3}{4}$ miles northwest	20, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Roman Eros	--	--	-- 47-m	36	1.0
891	11 $\frac{3}{4}$ miles northwest	31, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 2 N. Blk. 33	Cliff Talbot	--	--	-- 22-m	36	3.4
892	2 $\frac{3}{4}$ miles northwest	20, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 33	P. C. Leatherwood	--	--	-- 63-m	36	1.6
893	3 $\frac{1}{4}$ miles north	30, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 32	R. L. Schwerzenbach	--	--	-- 74-m	40	0.9
893a	do.	30, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	do.	--	--	90 --	40	1.0

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
869	62.2	Sept. 3, 1936	C,W	P	2,615	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
870	29.0	do.	C,W	S	--	Dug well. No casing. Located in dry lake. Reported capacity, 5-10 gallons a minute.
871	38.0	do.	C,W	D,S	2,597	54 feet casing at top. Bottom joint perforated. Reported capacity, 5-10 gallons a minute.
872	22.0	do.	C,W	S	--	Dug well. Top boxed with wood. Located on flat creek bank. Weak supply.
873	44.5	do.	C,W	D,S	--	No casing. Reported capacity, 5-10 gallons a minute. Drawdown, 2 feet after pumping 8 hours.
874	38.8	do.	C,W	S	--	Dug well. Top covered with wood. Located near dry lake. Weak supply.
875	42.0	do.	C,W	D,S	--	No casing. Located edge of dry lake. Weak supply. Reported capacity, 2-5 gallons a minute.
876	27.4	do.	B,H	D,S	--	Dug well. Wood curb at top. Weak supply. Located near creek bank.
877	16.6	do.	B,H	D,S	--	Dug well. Tin crib at top. Weak supply. Reported capacity, 2-5 gallons a minute.
878	67.0	Sept. 4, 1936	C,W	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute.
879	22.1	do.	B,H	D	--	Dug well. No casing. Tenants boil water before drinking. Weak supply.
880	17.2	do.	C,W	D,S	--	Dug well. Brick curb. Weak supply.
881	20.2	do.	B,H	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Weak supply.
882	6.3	do.	C,W	D,S	2,565	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Located near creek. Never fails.
882a	--	--	None	N	2,552	Oil test. See log.
883	21.5	Sept. 4, 1936	C,W	D,S	2,530	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Never fails.
884	33.0	do.	C,W	D,S	2,541	20 feet casing at top. Reported capacity, 2-5 gallons a minute. Weak supply.
885	44.2	do.	C,W,G, 1½	D,S	2,546	Dug well. Wood curb. Reported capacity, 5-10 gallons a minute.
886	16.5	do.	C,W	D,S	2,557	20 feet casing at top. Located near center of dry lake. Strong supply.
887	53.1	do.	C,W	D,S	2,587	Dug well. No casing. Located 200 yards west of dry lake. Reported capacity, 2-5 gallons a minute.
888	64.0	do.	C,W	D,S,I	--	Dug well. No casing. Supplies 3 families and irrigates gardens. Reported capacity, 5-10 gallons a minute.
889	52.4	do.	-,W	N	--	Dug well. No casing. Located north edge of dry lake. Reported capacity, 2-5 gallons a minute.
890	44.3	do.	C,W	N	--	Dug well. Rock crib at top. Reported capacity, 2-5 gallons a minute.
891	21.7	do.	C,W	D,S	--	Dug well. No casing. Reported capacity, 2-5 gallons a minute. Weak supply.
892	51.7	Sept. 9, 1936	C,W	D,S	--	Dug well. Concrete curb at top. Reported capacity, 2-5 gallons a minute.
893	69.7	do.	C,W	D,S	2,606	Dug well. Wood cover at top. Weak supply. Reported capacity, 2-5 gallons a minute.
893a	69 g/	Apr. 1, 1936	C,W	D,S	--	Dug well. Concrete curb at top. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
894	3 $\frac{3}{4}$ miles north	19, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 33	J. W. Curtis	Murdock Bros.	1926	91 97-m	6	1.7
895	4 $\frac{3}{4}$ miles north	18, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 32	Mrs. F. B. Blalock	--	--	-- 90-m	5	1.5
896	6 miles north	11, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 N. Blk. 33	Mrs. Dora Roberts	--	--	-- 67-m	6	0
897	7 $\frac{1}{4}$ miles northwest	2, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	F. M. Holley	Murdock Bros.	1932	-- 93-m	6	1.2
898	7 $\frac{3}{4}$ miles northwest	46, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	R. B. Cline	--	--	-- 70-m	40	2.2
899	8 $\frac{1}{4}$ miles northwest	5, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. W. Smith	--	--	-- 33-m	36	2.2
900	9 miles northwest	44, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	T. 2 N. Blk. 33	W. S. Martin	--	--	-- 22-m	40	1.8
901	9 $\frac{3}{4}$ miles northwest	30, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	Bauer & Cockrell, Blk. A	Guitar Est.	--	--	31 --	42	0
902	10 $\frac{1}{2}$ miles northwest	31, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	E. E. Coughy	--	--	-- 33-m	50	1.5
903	10 $\frac{1}{2}$ miles west	10, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 34	J. G. Crawford	J. G. Crawford	1930	-- 26-m	45	1.4
904	9 $\frac{1}{2}$ miles west	11, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. J. Copeland	W. J. Copeland	1935	-- 32-m	43	0
905	8 $\frac{1}{2}$ miles west	12, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	H. H. Wilkerson	H. Ford	1925	-- 55-m	40	1.8
906	8 $\frac{3}{4}$ miles west	13, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	J. M. Bates	--	--	-- 32-m	40	0.6
907	8 miles west	24, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	H. H. Wilkerson	--	--	-- 36-m	42	1.5
908	6 $\frac{3}{4}$ miles west	34, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	P. E. Rust, et al.	--	--	-- 72-m	6	0.2
909	7 miles west	1, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Arch. Ford	Arch. Ford	1930	-- 44-m	38	2.5
910	11 $\frac{3}{4}$ miles west	6, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	G. M. Long	--	1915	-- 25-m	41	2.2
911	12 miles west	28, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	H. H. Wilkerson	--	1927	-- 14-m	40	0.6
912	11 miles west	5, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	W. H. Abrams, Agt.	--	--	-- 22-m	36	2.3
913	10 $\frac{1}{2}$ miles west	8, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Birl Field	--	--	-- 29-m	5	0.4
914	9 $\frac{1}{4}$ miles west	31, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	H. H. Wilkerson	--	--	-- 16-m	39	2.0
915	7 $\frac{3}{4}$ miles southwest	11, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 34	Mabel Quinn	--	--	-- 10-m	5	1.8
f/915a	do.	11, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	Marland Oil Co.	1926	3,750 --	15 $\frac{1}{2}$	--
916	4 $\frac{3}{4}$ miles northwest	12, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 33	J. T. Miller	--	--	-- 72-m	6	1.4
917	5 $\frac{3}{4}$ miles northwest	10, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	E. D. Hull	--	--	-- 67-m	6	2.2
918	6 $\frac{3}{4}$ miles northwest	8, SW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Jno. C. Adams	--	--	-- 45-m	5-3/8	2.2
919	do.	21, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	Bauer & Cockrell, Blk. A	Guitar Est.	--	--	-- 52-m	41	2.7

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power c/	Use of water d/	Altitude above sea level e/	Remarks
	Depth below measuring point (feet)	Date of measurement				
894	79.1	Sept. 9, 1936	C,W	S	--	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
895	89.2	do.	C,W	D,S	--	23 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
896	60.0	do.	C,W	S	--	20 feet casing at top. Reported unfit for drinking.
897	86.0	do.	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
898	66.1	do.	C,W	S	--	Dug well. No casing. Reported capacity, 5-10 gallons a minute. Strong supply.
899	30.2	do.	C,W	S	--	Dug well. Concrete curb at top. Weak supply.
900	17.2	do.	B,H	S	--	Dug well. Concrete curb at top. Weak supply. Reported unfit for drinking.
901	27.6	do.	C,W	D,S	--	Dug and drilled well. Concrete curb at top. Weak supply.
902	27.5	do.	C,W	D,S	--	Dug well. Wood casing at top. Reported capacity, 2-5 gallons a minute.
903	24.7	do.	C,W	S	--	Dug well. Wood curb. Gypsum taste. Reported capacity, 2-5 gallons a minute.
904	30.1	do.	B,H	S	--	Dug well. No casing. Weak supply; unfit for drinking.
905	54.4	do.	C,W	D,S	--	Dug well. Wood curb. Weak supply. Reported capacity, 2-5 gallons a minute.
906	28.7	do.	C,W	S	--	Dug well. Wood curb. Reported unfit for drinking. Weak supply.
907	31.3	do.	C,W	S	--	Dug well. Wood curb. Tenant uses cistern water. Weak supply.
908	71.3	do.	C,W	S	--	20 feet casing at top. Weak supply. Reported unfit for drinking.
909	42.7	Sept. 10, 1936	C,W	S	2,463	Dug well. Wood curb. Weak supply. Reported capacity, 2-5 gallons a minute.
910	23.5	do.	C,W	S	--	Dug well. No casing. Weak supply. Reported unfit for drinking.
911	13.1	do.	C,W	S	--	Dug well. No casing. Weak supply. Reported capacity, 2-5 gallons a minute. Reported unfit for drinking.
912	18.4	do.	C,W	S	--	Dug well. Wood curb. Weak supply. Reported gypsum taste.
913	21.9	do.	C,W	S	2,461	20 feet casing at top. Weak supply. Reported capacity, 2-5 gallons a minute.
914	15.7	do.	C,W	S	--	Dug well. Wood curb. Weak supply. Located near salt lake.
915	7.8	do.	C,W	S	--	3 feet casing at top. Weak supply. Located west bank of Elbow Creek. Reported gypsum taste.
915a	--	--	None	N	2,494	Oil test. See log.
916	63.5	Sept. 10, 1936	C,W	D,S	--	20 feet casing at top. Reported capacity, 2-5 gallons a minute.
917	64.6	do.	C,W	D,S	--	20 feet casing at top. Located edge of dry lake. Reported capacity, 5-10 gallons a minute.
918	24.5	do.	C,W	D,S	--	18 feet casing at top. Drawdown, 2 feet after pumping 5-10 gallons a minute for 4 hours.
919	51.5	do.	C,W	D,S	--	Dug well. Top cribbed with brick. Weak supply. Located in a dry lake.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
f/919a	6 $\frac{1}{2}$ miles west	14, center, SE. corner	Bauer & Cockrell, Blk. A	Guitar Est.	Marland Oil Co.	1927	3,507 --	20	--
920	5 $\frac{1}{2}$ miles northwest	16, NE. $\frac{1}{4}$ NW. $\frac{1}{4}$	T. 1 N. Blk. 33	J. W. Phillips	--	--	53-m	48	3.0
921	4 $\frac{1}{2}$ miles northwest	17, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	W. H. Ward	--	--	93-m	8 $\frac{1}{2}$	4.2
922	4 miles northwest	22, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	J. A. Forrest	--	1934	79-m	41	0.2
923	3 miles west	23, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	R. T. Kelley	Murdock Bros.	--	136 --	10	2.2
f/923a	4 $\frac{3}{4}$ miles west	4, NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	Bauer & Cockrell, Blk. A	Guitar Est.	Marland Oil Co.	1928	4,208 --	15	--
924	2 $\frac{1}{4}$ miles northwest	24, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	T. 1 N. Blk. 33	B. Leatherwood	--	--	89-m	6	2.2
f/924a	do.	do.	do.	Walter Pike	D. C. Reed	1936	3,398 --	15 $\frac{1}{2}$	--
925	3 $\frac{1}{4}$ miles southeast	16, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	T. 1 S. Blk. 32	B. B. Fox	City of Big Spring	1936	242 240-m	8	0
f/925a	3 $\frac{1}{2}$ miles southeast	10, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	do.	--	--	Spring	--	--
926	3 miles southeast	17, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Joe B. Neal	--	--	126-m	8	1.2
f/926a	do.	do.	do.	do.	Worth E. Andrews	1928	4,005 --	15 $\frac{1}{2}$	--
927	2 $\frac{3}{4}$ miles south	18, SE. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	J. W. Clark	Ramond Davidson	1934	124-m	6-5/8	0.8
f/928	3 $\frac{1}{2}$ miles south	18, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. Davis	--	--	110 --	6-5/8	1.1
929	4 $\frac{1}{2}$ miles southeast	21, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	B. E. Fox	Frank Knaus	1927	94-m	6-5/8	1.2
f/929a	6 miles southeast	24, SW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Dora Roberts	General Oil Co.	1927	3,000 --	15 $\frac{1}{2}$	--
930	5 miles southeast	28, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Hardy Morgan	Frank Kneus	1936	124-m	6-5/8	1.0
f/931	5 $\frac{1}{2}$ miles southeast	32, NW. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	do.	--	--	240 --	8	0.5
932	7 miles south	41, NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	B. & J. Fisher	--	--	111-m	8	0.5
f/932a	6 $\frac{1}{2}$ miles southeast	41, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	City of Big Spring	Frank Knaus	1937	230 --	8	--
f/933	7 $\frac{1}{2}$ miles southeast	45, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	Hardy Morgan	City of Big Spring	1929	160 --	8	0
f/934	7 $\frac{1}{2}$ miles southeast	do.	do.	do.	--	1929	180 --	8	0
f/935	7 $\frac{1}{4}$ miles south	44, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	do.	--	1929	160 --	8	0
f/935a	8 miles south	43, SE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	City of Big Spring	Frank Knaus	1937	247 --	8	--
936	20 miles southeast	208, NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	W.&N.W.Ry. Co., Blk. 29	S. G. Childress	S. G. Childress	1911	132 130-m	6-5/8	0.7
937	19 $\frac{1}{2}$ miles southeast	223, NE. $\frac{1}{4}$ NE. $\frac{1}{4}$	do.	Mrs. P. A. Ratliff	Calvin Adams	1936	125 --	6-5/8	0
938	18 $\frac{1}{2}$ miles southeast	180, SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	do.	J. B. Hollis	--	--	115 115-m	6	0.7

J. Howard Samuel, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Altitude above sea level <u>e/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement				
919a	--	--	None	N	--	Oil test. See log.
920	52.4	Sept. 10, 1936	C, W	D, S	--	Dug well. Cribbed with brick at top. Weak supply. Reported capacity, 2-5 gallons a minute.
921	82.9	do.	C, W	D, S	--	4 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
922	77.2	do.	C, W	S	--	Dug well. Wood curb. Weak supply. Reported unfit for drinking.
923	133.5	do.	C, W	S	--	10 feet casing at top. 40 feet perforated 6 inch casing at bottom. Weak supply.
923a	--	--	None	N	2,514	Oil test. See log.
924	63.2	Sept. 10, 1936	C, W	D, S	2,515	20 feet casing at top. 20 feet perforated liner at bottom. Strong supply.
924a	--	--	None	N	2,515	Oil test. See log.
925	212.0	Aug. 14, 1936	None	N	2,772	No casing. Estimated capacity, 30 gallons a minute. City of Big Spring test well. See log.
925a	Flows	do.	None	D, S	2,559	Concrete curb. Flows 2 gallons a minute through 5 inch pipe to concrete stock tank below spring.
926	84.4	Sept. 22, 1936	C, W	S	2,759	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
926a	--	--	None	N	2,762	Oil test. See log.
927	89.3	June 25, 1936	C, W	D, S	2,665	10 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
928	77.0	do.	C, W	D, S	2,669	18 feet casing at top. Reported capacity, 5-10 gallons a minute.
929	75.1	Aug. 25, 1936	C, W	S	2,633	20 feet casing at top. Reported capacity, 5-10 gallons a minute. Never fails.
929a	--	--	None	N	2,456	Oil test. See log.
930	89.9	Aug. 25, 1936	C, W	D, S	2,632	20 feet casing at top. Reported capacity, 5-10 gallons a minute.
931	184.2	do.	C, W	S	2,761	No casing. Hole caving. Reported capacity, 5-10 gallons a minute.
932	102.2	Aug. 27, 1936	C, W	S	2,673	10 feet casing at top. Located on creek bank. Reported capacity, 5-10 gallons a minute.
932a	--	--	None	N	--	City test well. No casing. Estimated capacity, 30 gallons a minute. See log.
933	117.7	Aug. 26, 1936	None	N	2,694	No casing. Test drilled by City of Big Spring.
934	147.3	Aug. 27, 1936	None	N	2,707	Do.
935	117.0	do.	C, W	S	2,740	No casing. Reported capacity, 5-10 gallons a minute. Never fails.
935a	--	--	None	N	--	City test well. No casing. Reported capacity, 15 gallons a minute. See log.
936	75.0	Sept. 21, 1936	C, W	D, S	2,604	20 feet casing at top. Pumps dry in 1 hour pumping 5-10 gallons a minute. In Glasscock County.
937	80 <u>e/</u>	do.	C, G, 25	Ind	2,555	60 feet casing at top. Production, 1000 barrels water in 10 hours. Strong supply. In Glasscock County.
938	100.0	Oct. 1, 1936	C, W	D, S	2,607	10 feet casing at top. In Glasscock County. Reported capacity, 5-10 gallons a minute.

Records of wells in Howard County--Continued.

No.	Distance from Big Spring	Section	Survey or township, block	Owner	Driller	Date completed	Depth of well (ft.) a/	Diameter of well (in.)	Height of measuring point above ground (ft.) b/
939	15 $\frac{1}{2}$ miles southeast	185, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	W.&N.W.Ry. Co., Blk. 29	A. M. Burns	--	1936	-- 124-m	10	1.4
f/940	18 $\frac{1}{4}$ miles southeast	181, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	do.	Fairview School	Clay Bedell	1927	-- 106-m	8	0
f/941	16 $\frac{1}{2}$ miles southeast	193, NW. $\frac{1}{4}$ NW. $\frac{1}{4}$	do.	I. W. Morgan	--	--	-- 128-m	8	0.2

a/ Reported depth given first and measured depth indicated by "m".

b/ Measuring point was usually top of casing, top of water pipe clamp, or top of well curb.

c/ T, turbine; C, cylinder; B, bucket or bailer; E, electric; G, gasoline engine; Ng, natural gas engine; W, windmill; H, hand; number indicates horsepower.

J. Howard Samuell, Project Superintendent.

No.	Water Level		Pump and power <u>c/</u>	Use of water <u>d/</u>	Alti- tude above sea level <u>e/</u>	Remarks
	Depth below measur- ing point (feet)	Date of measure- ment				
939	98.0	Oct. 1, 1936	C,W	S	2,612	20 feet casing at top. In Glasscock County. Reported capacity, 5-10 gallons a minute.
940	90.5	do.	C,W	D	2,594	No casing. Reported capacity, 5-10 gallons a minute. In Glasscock County.
941	97.4	do.	C,W	D,S	2,600	Do.

d/ I, irrigation; P, public; Ind, industrial; D, domestic; S, stock; N, not used.

e/ Altitude of measuring point on city wells obtained from city engineer; all other altitudes obtained by barometric readings.

f/ No water sample collected for analysis.

g/ Water level reported.

Water level measurements of observation wells in Howard County, Texas
(Table of well records herewith gives full descriptions of these wells.)

Date of measure- ments 1936 a/	Time	Depth to water (feet)	Date of measure- ment 1936 a/	Time	Depth to water (feet)	Date of measure- ment 1936 a/	Time	Depth to water (feet)
Well 1			Well 2--Continued			Well 4--Continued		
City of Big Spring. City Park. Measuring point is top of 15 inch casing, level with ground. Nearest pumping well is 500 feet northeast.			July 3 9:30 a.m. 172.1			May 8 9:05 p.m. 164.3		
Jan. 17	-- --	155.1	7	10:00 a.m.	172.8	12	9:30 a.m.	164.4
May 5	8:15 a.m.	160.8	8	10:15 a.m.	173.0	26	2:35 p.m.	161.2
8	8:10 a.m.	160.7	10	4:15 p.m.	172.9	28	4:00 p.m.	162.1
12	8:05 a.m.	160.1	20	1:30 p.m.	175.3	29	3:45 p.m.	162.4
12	10:05 a.m.	166.8	22	8:25 a.m.	177.4	June 4	10:45 a.m.	171.2
26	10:00 a.m.	158.6	Sept. 17	9:30 a.m.	184.8	11	2:20 p.m.	178.1
28	9:15 a.m.	155.5	1937			16	3:50 p.m.	174.0
29	10:00 a.m.	157.1	Jan. 24	2:30 p.m.	170.2	18	9:40 a.m.	176.1
June 4	9:00 a.m.	158.9	Well 3			20	9:45 a.m.	167.9
11	1:00 p.m.	165.2	City of Big Spring. $1\frac{1}{2}$ miles south of Big Spring. Measuring point is top of 6 inch casing, 1.42 feet above ground. Nearest purping well is 300 feet northeast.			22	3:45 p.m.	175.1
16	2:00 p.m.	162.0	Jan. 17	9:00 a.m.	158.4	24	10:20 a.m.	177.1
18	8:00 a.m.	163.9	May 5	9:00 a.m.	166.2	July 3	10:30 a.m.	178.7
20	8:05 a.m.	164.9	8	8:50 a.m.	165.7	7	11:30 a.m.	179.3
22	2:25 p.m.	164.2	12	8:55 a.m.	166.7	8	11:15 a.m.	179.4
24	8:55 a.m.	164.1	26	11:35 a.m.	165.2	10	3:15 p.m.	178.6
July 3	9:00 a.m.	165.1	28	3:15 p.m.	165.1	20	2:00 p.m.	182.2
7	10:00 a.m.	165.5	29	2:00 p.m.	165.7	22	9:00 a.m.	183.7
8	9:50 a.m.	165.5	June 4	10:00 p.m.	169.1	Sept. 17	11:30 a.m.	199.5
10	4:45 p.m.	166.0	11	1:50 p.m.	172.6	Well 6		
20	1:15 p.m.	168.5	16	3:10 p.m.	169.5	City of Big Spring. 2 miles south of Big Spring. Measuring point is top of $8\frac{1}{2}$ inch casing in concrete block, 1.17 feet above ground. Nearest pumping well is located in SE $\frac{1}{4}$ sec. 17, 7,200 feet distant.		
Sept. 17	9:00 a.m.	174.4	18	8:50 a.m.	171.3	Feb. 5	-- --	71.5
Well 2			20	8:55 a.m.	170.9	May 8	8:00 a.m.	71.9
City of Big Spring. $1\frac{1}{2}$ miles south of Big Spring. Measuring point is top of 6 inch casing, level with ground. Nearest pumping well is 500 feet northeast.			22	3:20 p.m.	171.6	June 21	1:30 p.m.	71.1
Jan. 17	4:00 p.m.	176.1	24	9:50 a.m.	171.4	22	11:30 a.m.	72.1
May 5	8:40 a.m.	166.5	July 3	10:00 a.m.	171.9	24	2:45 p.m.	72.1
8	8:35 a.m.	165.6	7	11:00 a.m.	172.8	July 3	11:40 a.m.	71.1
12	8:25 a.m.	166.7	8	10:45 a.m.	173.1	9	2:45 p.m.	71.9
26	10:40 a.m.	165.3	10	3:45 p.m.	173.0	20	3:45 p.m.	72.5
28	1:05 p.m.	165.6	20	1:45 p.m.	175.4	22	2:25 p.m.	72.0
29	11:20 a.m.	165.8	22	8:40 a.m.	177.4	Aug. 21	8:04 a.m.	74.7
June 4	9:30 a.m.	169.1	Sept. 17	10:00 a.m.	184.8	Sept. 5	4:30 p.m.	72.2
11	1:25 p.m.	172.6	1937			8	1:52 p.m.	71.7
16	2:30 p.m.	169.2	Jan. 24	2:45 p.m.	170.2	12	4:30 p.m.	72.0
18	8:25 a.m.	171.8	Well 4			17	2:00 p.m.	71.8
20	8:35 a.m.	170.8	City of Big Spring. $1\frac{1}{2}$ miles south of Big Spring. Measuring point is top of $12\frac{1}{2}$ inch casing, 1.67 feet above ground. Nearest pumping well is 300 feet east.			Well 9		
22	2:50 p.m.	171.3	Jan. 17	-- --	152.4	City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 6 inch casing in concrete block, 1 foot above ground. No		
24	9:25 a.m.	171.8	May 5	9:20 a.m.	164.8	(Continued on next page)		

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth to water (feet)	Date of measurement 1936 a/	Time	Depth to water (feet)	Date of measurement 1936 a/	Time	Depth to water (feet)
Well 9--Continued			Well 15--Continued			Well 18a--Continued		
pumping wells nearby.			City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing, 0.83 foot above ground. Nearest pumping well is in sec.17, 1 mile east.			City of Big Spring. 2 1/4 miles south of Big Spring. Measuring point is top of 6 inch casing, 1.3 feet above ground. Nearest pumping well is 4,000 feet east.		
Jan. 21	--	63.0	Aug. 21	9:42 a.m.	82.3	Sept. 8	1:25 p.m.	92.2
Jan. 22	--	64.4	Sept. 5	3:45 p.m.	80.1	12	3:30 p.m.	96.2
May 7	3:35 p.m.	59.1	8	1:40 p.m.	76.7	17	4:30 p.m.	94.0
June 18	10:00 a.m.	61.1	12	4:00 p.m.	79.0	Well 19		
20	10:10 a.m.	61.1	17	4:00 p.m.	79.8	City of Big Spring. 2 1/2 miles south of Big Spring. Measuring point is top of 6 inch casing, 0.25 foot above ground. Nearest pumping well is 4,100 feet east.		
22	10:45 a.m.	62.1	Well 18			Jan. 23	--	92.5
24	2:25 p.m.	62.1	City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing, 0.83 foot above ground. Nearest pumping well is in sec.17, 1 mile east.			May 7	1:20 p.m.	110.5
July 3	11:15 a.m.	62.2	Jan. 22	--	93.5	June 18	1:30 p.m.	110.1
7	1:00 p.m.	61.9	May 7	1:55 p.m.	95.7	20	1:45 p.m.	111.4
9	2:00 p.m.	61.8	June 18	11:05 a.m.	94.9	22	8:25 a.m.	110.5
20	3:00 p.m.	61.3	20	11:15 a.m.	95.0	24	1:00 p.m.	110.6
22	11:00 a.m.	62.0	22	9:50 a.m.	95.8	July 3	2:20 p.m.	109.2
Aug. 10	3:50 p.m.	62.9	24	1:55 p.m.	94.5	7	3:30 p.m.	109.5
21	8:26 a.m.	64.2	July 3	1:35 p.m.	94.1	8	8:30 a.m.	109.4
Sept. 5	4:00 p.m.	61.6	7	2:00 p.m.	94.8	9	1:30 p.m.	109.9
8	1:47 p.m.	61.4	8	9:20 a.m.	94.1	20	11:45 a.m.	110.2
12	4:15 p.m.	61.7	20	2:15 p.m.	95.5	22	1:35 p.m.	112.2
17	2:30 p.m.	61.6	22	1:00 a.m.	95.6	Aug. 21	11:00 a.m.	112.3
Well 9a			Aug. 10	1:50 p.m.	97.4	Sept. 5	2:15 p.m.	109.7
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 9 inch casing in concrete block, 0.75 foot above ground. No pumping wells nearby.			21	10:15 a.m.	96.7	8	1:08 p.m.	109.8
Jan. 22	9:00 a.m.	64.8	Sept. 5	3:00 p.m.	94.1	12	1:30 p.m.	109.2
May 7	3:15 p.m.	63.1	8	1:20 p.m.	94.0	Well 19a		
Aug. 21	9:18 a.m.	63.7	12	2:30 p.m.	93.6	City of Big Spring. 2 1/4 miles south of Big Spring. Measuring point is top of 6-5/8 inch casing, 1.3 feet above ground. Nearest pumping well is 4,000 feet east.		
Sept. 5	4:15 p.m.	61.2	17	4:15 p.m.	93.5	Jan. 22	--	110.1
1937			Well 18a			May 7	1:00 p.m.	110.6
Jan. 24	3:00 p.m.	61.1	City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing 0.67 foot above ground. Nearest pumping well is in sec.17, 1 mile east.			June 18	1:00 p.m.	110.7
Well 15			Jan. 22	--	94.1	20	1:10 p.m.	111.2
City of Big Spring. 2 miles south of Big Spring. Measuring point is top of 8 inch casing in concrete block, 1 foot above ground. No pumping wells nearby.			May 7	2:20 p.m.	94.1	22	8:00 a.m.	110.9
Jan. 24	--	79.0	June 18	11:35 a.m.	94.1	24	12:10 p.m.	110.8
May 7	2:45 p.m.	78.7	20	11:45 a.m.	94.9	July 3	1:55 p.m.	109.1
June 18	10:35 a.m.	80.2	22	9:25 a.m.	96.4	7	3:30 p.m.	109.9
20	10:35 a.m.	79.6	24	1:30 p.m.	94.5	8	8:00 a.m.	109.6
22	10:15 a.m.	81.3	July 3	10:50 a.m.	91.3	20	11:45 a.m.	110.6
24	2:10 p.m.	79.1	7	2:30 p.m.	93.9	22	1:20 p.m.	112.3
July 3	1:00 p.m.	79.9	8	8:55 a.m.	93.8	Aug. 10	2:53 p.m.	112.8
7	1:30 p.m.	79.5	20	2:30 p.m.	94.9	21	11:25 a.m.	112.5
20	2:45 p.m.	79.8	22	11:55 a.m.	95.5	Sept. 5	2:45 p.m.	110.3
22	11:20 a.m.	80.2	Aug. 10	3:05 p.m.	95.1	8	1:05 p.m.	109.8
Aug. 10	3:15 p.m.	81.4	21	10:40 a.m.	96.4	12	1:00 p.m.	109.8
			Sept. 5	3:30 p.m.	94.0			

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth to water (feet)	Date of measurement 1936 a/	Time	Depth to water (feet)	Date of measurement 1936 a/	Time	Depth to water (feet)
Well 20			Well 29			Well 31--Continued		
City of Big Spring. 2 1/4 miles south of Big Spring. Measuring point is top of 8 inch casing, 0.83 foot above ground. Nearest pumping well is 4,300 feet east.			City of Big Spring. 9 1/2 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.79 foot above ground. Nearest pumping well is 250 feet east.			Feb. 6 -- --		
Jan. 23	-- --	142.2	Feb. 7	-- --	218.5	May 5	11:15 a.m.	221.7
May 7	1:40 p.m.	142.2	May 5	1:45 p.m.	218.1	8	10:40 a.m.	222.3
July 20	12:01 p.m.	142.7	8	11:10 a.m.	221.7	29	8:25 a.m.	224.9
22	2:00 p.m.	145.4	8	3:50 p.m.	220.1	June 16	8:20 a.m.	222.7
Aug. 21	11:50 a.m.	145.0	June 18	4:50 p.m.	220.3	17	1:50 p.m.	222.3
Sept. 5	3:00 p.m.	143.0				19	2:05 p.m.	221.1
Well 21			Well 30			Well 32		
City of Big Spring. 2 miles southeast of Big Spring. Measuring point is top of 7 inch casing, 1.75 feet above ground. Nearest pumping well is 3,860 feet southeast.			City of Big Spring. 2 1/2 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.25 foot above ground. Nearest pumping well is 100 feet north.			City of Big Spring. 2 1/2 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.75 foot above ground. Nearest pumping well is 950 feet east.		
Jan. 28	9:00 a.m.	99.6	Feb. 7	9:00 a.m.	217.5	Feb. 6	-- --	225.4
May 7	11:50 p.m.	100.9	May 5	10:00 a.m.	218.6	May 5	11:45 a.m.	225.1
July 20	11:30 a.m.	101.2	8	10:55 a.m.	218.5	8	10:25 a.m.	226.5
22	11:35 a.m.	102.3	June 16	8:00 a.m.	220.8	29	9:00 a.m.	228.7
Aug. 21	1:00 p.m.	102.9	17	1:25 p.m.	220.7	June 16	8:45 a.m.	227.1
Sept. 5	1:30 p.m.	100.0	19	2:00 p.m.	220.2	17	2:30 p.m.	226.3
1937			23	2:10 p.m.	220.9	18	4:00 p.m.	226.1
Jan. 24	3:20 p.m.	100.1	24	4:10 p.m.	219.1	19	1:30 p.m.	226.8
Well 21a			Well 31			Well 33		
City of Big Spring. 2 miles southeast of Big Spring. Measuring point is top of 6-5/8 inch casing 1.08 feet above ground. Nearest pumping well is 3,900 feet south-east.			City of Big Spring. 2 1/2 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.5 foot above ground. Nearest pumping well is 500 feet north.			City of Big Spring. 2 1/2 miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.75 foot above ground. Nearest pumping well is 1,500 feet east.		
Jan. 28	-- --	100.4	July 7	9:15 a.m.	220.4	Feb. 6	-- --	230.7
May 7	11:35 a.m.	102.0	9	11:30 a.m.	219.9	May 5	8:00 a.m.	230.2
June 20	2:30 p.m.	102.2	10	2:10 p.m.	219.8	8	10:10 a.m.	230.9
22	9:05 a.m.	102.5	20	10:00 a.m.	221.3			
July 3	2:50 p.m.	101.7	21	3:45 p.m.	223.4			
9	1:00 p.m.	101.2	29	2:42 p.m.	227.2			
20	11:15 a.m.	102.8	Aug. 10	9:55 a.m.	225.4			
Aug. 21	1:20 p.m.	103.8	21	1:36 p.m.	223.8			
Sept. 5	1:15 p.m.	101.7	Sept. 5	9:00 a.m.	221.6			
8	2:05 p.m.	101.3	12	9:20 a.m.	224.6			
12	11:40 p.m.	101.3	1937					
			Jan. 24	4:00 p.m.	220.4			

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 33--Continued			Well 37--Continued			Well 40--Continued		
May 29	9:30 a.m.	230.6	May 6	8:45 a.m.	213.4	June 24	11:45 a.m.	228.6
June 16	9:10 a.m.	231.9	29	10:45 a.m.	224.1	24	4:45 p.m.	228.7
17	2:55 p.m.	231.5	June 16	9:45 a.m.	223.2	July 9	8:35 a.m.	229.9
18	4:30 p.m.	230.8	18	3:20 p.m.	224.2	10	1:00 p.m.	230.1
19	1:00 p.m.	231.3	24	4:30 p.m.	222.5	20	9:00 a.m.	229.8
23	3:40 p.m.	230.0	July 7	9:35 a.m.	223.1	21	2:40 p.m.	227.7
24	3:10 p.m.	231.7	9	9:15 a.m.	222.6	29	2:17 p.m.	229.8
July 7	8:00 a.m.	230.9	10	1:25 a.m.	223.0	Aug. 10	9:30 a.m.	231.1
9	11:00 a.m.	230.9	29	2:26 p.m.	229.1	21	2:55 p.m.	230.0
20	10:30 a.m.	232.7	Aug. 10	9:40 a.m.	228.6	Sept. 5	9:30 a.m.	232.0
21	3:00 p.m.	235.2	21	2:28 p.m.	227.4	8	11:05 a.m.	230.8
Aug. 21	2:15 p.m.	235.0	Sept. 5	9:15 a.m.	224.6	12	9:40 a.m.	234.7
Sept. 5	8:30 a.m.	232.1	8	10:57 a.m.	224.1	1937		
12	9:00 a.m.	223.7	12	9:30 a.m.	227.0	Jan. 24	5:00 p.m.	226.5
Well 34			Well 38			Well 40b		
City of Big Spring. 2 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.67 foot above ground. Nearest pumping well is well 34a, 10 feet north.			City of Big Spring. 2 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.58 foot above ground. Nearest pumping well is 275 feet north.			City of Big Spring. 3 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is ground surface. Nearest pumping well is well 40a, 1 mile north.		
Feb. 5	-- --	206.1	Feb. 2	-- --	215.2	Dec. 10	9:00 a.m.	214.0
May 6	9:15 a.m.	208.7	May 6	8:20 a.m.	214.1	1937		
8	1:00 p.m.	209.3	8	11:55 a.m.	216.0	Jan. 24	4:30 p.m.	214.0
29	10:20 a.m.	210.0	29	11:40 a.m.	217.7	Well 41		
June 16	9:25 a.m.	210.3	June 16	10:05 a.m.	219.5	City of Big Spring. 2 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 0.12 foot above ground. Nearest pumping well is 275 feet north.		
18	1:50 p.m.	210.1	18	2:20 p.m.	210.1	Feb. 5	9:00 a.m.	214.8
19	3:00 p.m.	210.3	24	10:55 a.m.	218.8	May 6	10:40 a.m.	201.0
24	11:15 a.m.	209.8	24	5:10 a.m.	218.6	8	1:55 p.m.	216.6
24	5:25 p.m.	210.1	July 10	2:50 p.m.	219.3	July 17	4:30 p.m.	219.6
July 10	2:25 p.m.	211.7	20	9:30 a.m.	219.8	21	2:10 p.m.	222.8
20	9:45 a.m.	212.0	21	2:25 p.m.	223.1	Sept. 5	10:45 a.m.	217.5
29	1:45 p.m.	217.5	29	2:00 p.m.	225.1	12	10.00 a.m.	222.7
Well 34a			Aug. 10	9:12 a.m.	223.8	Jan. 24	4:15 p.m.	217.9
City of Big Spring. 2 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 2.5 feet above ground. Nearest pumping well is 350 feet west.			Sept. 5	9:45 a.m.	219.8	Well 45		
Apr. 3	-- --	215.4	8	11:10 a.m.	220.0	City of Big Spring. 2-3/4 miles southeast of Big Spring. Measuring point is ground surface. Nearest pumping well is 300 feet north.		
May 6	10:15 a.m.	209.8	Well 40			Apr. 4	-- --	206.0
8	1:30 p.m.	211.5	City of Big Spring. 2 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is top of 8 inch casing, 2.5 feet above ground. Nearest pumping well is well 40a, 6 feet east.			May 6	11:05 a.m.	206.2
Well 37			May 5	4:10 p.m.	222.4	8	2:35 p.m.	216.8
City of Big Spring. 2 $\frac{1}{2}$ miles southeast of Big Spring. Measuring point is ground surface. Nearest pumping well is 250 feet west.			8	11:35 a.m.	221.3	(Continued on next page)		
			29	1:00 p.m.	232.4			
			June 16	10:30 a.m.	229.2			
			17	1:00 p.m.	228.2			
			18	2:55 p.m.	229.6			
			19	3:40 p.m.	229.8			

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 45--Continued			Well 51--Continued			Well 51--Continued		
June 16	10:50 a.m.	221.4	July 21	11:35 a.m.	132.0	Augv 16	9:15 p.m.	135.3
July 17	4:00 p.m.	222.1	21	7:30 p.m.	131.6	17	6:00 a.m.	116.6
21	1:40 p.m.	226.1	22	6:00 a.m.	114.2	17	8:15 p.m.	135.4
Sept. 5	11:00 a.m.	223.3	22	5:00 p.m.		18	6:00 a.m.	116.7
			23	6:00 a.m.	113.2	18	7:00 p.m.	135.0
			23	6:00 a.m.	126.7	19	5:45 a.m.	117.1
			24	6:00 a.m.	112.3	19	8:00 p.m.	135.9
			24	7:20 p.m.	131.3	20	5:45 a.m.	116.1
			25	6:00 a.m.	113.4	20	7:00 p.m.	135.7
			26	6:30 a.m.	112.6	21	5:45 a.m.	117.1
			26	6:15 p.m.	130.6	21	7:00 p.m.	135.5
			27	6:00 a.m.	112.9	22	5:45 a.m.	116.1
			27	8:00 p.m.	131.8	22	8:00 p.m.	135.8
			28	5:45 a.m.	113.8	23	6:00 a.m.	117.0
			28	9:30 p.m.	132.4	23	7:00 p.m.	135.4
			29	5:45 a.m.	115.0	24	6:15 a.m.	116.6
			29	7:40 p.m.	133.2	24	6:00 a.m.	128.6
			30	5:50 a.m.	115.4	25	6:00 a.m.	116.3
			30	6:00 p.m.	128.0	25	8:30 p.m.	128.3
			31	4:20 a.m.	114.4	26	6:15 a.m.	116.9
			31	6:15 p.m.	133.0	26	8:00 p.m.	135.1
			Aug. 1	5:15 a.m.	114.7	27	6:00 a.m.	116.9
			1	7:00 p.m.	133.1	27	8:15 p.m.	135.1
			2	6:00 a.m.	114.7	28	5:45 a.m.	116.6
			2	4:30 p.m.	132.6	28	10:00 p.m.	137.9
			3	5:45 a.m.	113.6	29	6:00 a.m.	117.8
			3	8:45 p.m.	132.1	29	6:45 p.m.	137.5
			4	5:45 a.m.	114.1	30	6:00 a.m.	116.1
			4	9:00 p.m.	134.2	30	1:15 p.m.	133.7
			5	5:45 a.m.	115.6	31	6:00 a.m.	114.1
			5	8:45 p.m.	134.6	31	3:15 p.m.	133.2
			6	5:30 a.m.	115.8	Sept. 1	6:00 a.m.	114.4
			6	9:15 p.m.	134.1	1	7:30 p.m.	133.7
			7	5:45 a.m.	116.2	2	6:00 a.m.	115.8
			7	8:45 p.m.	135.0	2	7:00 p.m.	134.1
			8	5:45 a.m.	116.0	3	6:15 a.m.	116.1
			8	8:00 p.m.	134.7	3	5:00 p.m.	130.1
			9	6:00 a.m.	116.0	4	6:00 a.m.	115.3
			9	5:00 p.m.	133.4	4	6:30 p.m.	133.4
			10	5:45 a.m.	114.9	5	6:30 a.m.	115.1
			10	7:00 p.m.	128.1	5	6:15 p.m.	132.1
			11	5:45 a.m.	114.6	6	7:00 a.m.	114.1
			11	7:00 p.m.	133.1	6	7:00 p.m.	134.4
			12	6:00 a.m.	114.1	7	6:20 a.m.	115.5
			12	8:00 p.m.	132.0	8	6:30 a.m.	114.8
			13	6:00 a.m.	115.7	8	10:14 a.m.	132.3
			13	9:00 p.m.	134.1	8	7:00 p.m.	133.1
			14	6:00 a.m.	116.1	9	6:30 a.m.	115.5
			14	9:15 p.m.	135.5	11	6:30 a.m.	111.7
			15	5:45 a.m.	116.9	11	7:15 p.m.	132.6
			15	7:00 p.m.	134.8	12	6:15 a.m.	114.0
			16	6:00 a.m.	116.1	12	7:00 p.m.	133.9

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 51--Continued			Well 51--Continued			Well 51--Continued		
Sept. 13	6:00 a.m.	115.0	Oct. 30	8:00 a.m.	109.2	Dec. 21	7:30 a.m.	109.2
14	6:30 a.m.	115.4	31	8:15 a.m.	108.1	22	7:45 a.m.	109.4
15	6:30 a.m.	115.7	Nov. 1	8:15 a.m.	109.3	23	7:45 a.m.	109.8
15	6:15 p.m.	134.0	2	7:45 a.m.	109.0	24	7:30 a.m.	102.8
16	6:00 a.m.	115.1	3	7:30 a.m.	109.7	25	8:00 a.m.	109.0
20	7:00 a.m.	115.2	4	8:15 a.m.	109.0	26	6:00 a.m.	109.0
20	3:00 p.m.	127.1	5	8:30 a.m.	108.1	29	7:45 a.m.	108.4
21	6:15 a.m.	113.8	6	8:00 a.m.	109.8	30	7:30 a.m.	109.0
22	7:00 a.m.	112.1	7	8:00 a.m.	109.8	31	7:45 a.m.	109.0
23	7:00 a.m.	112.7	8	8:15 a.m.	109.1	1937		
23	7:30 p.m.	127.4	9	8:15 a.m.	109.0	Jan. 1	8:00 a.m.	109.0
25	6:30 a.m.	110.4	10	8:00 a.m.	109.0	2	7:30 a.m.	109.2
25	6:45 p.m.	128.5	11	8:00 a.m.	109.2	3	8:00 a.m.	108.1
26	8:00 a.m.	110.7	12	8:00 a.m.	108.0	4	8:00 a.m.	109.0
26	5:30 p.m.	130.8	13	8:00 a.m.	109.9	5	7:45 a.m.	108.1
27	8:00 a.m.	110.3	14	8:00 a.m.	109.6	6	7:30 a.m.	108.8
27	6:45 p.m.	128.0	15	8:00 a.m.	109.6	7	7:30 a.m.	108.1
28	8:00 a.m.	109.0	16	8:00 a.m.	109.3	12	8:00 a.m.	110.0
28	6:30 p.m.	128.6	17	7:45 a.m.	108.9	13	8:00 a.m.	109.1
29	7:30 a.m.	109.0	18	8:00 a.m.	109.7	14	7:45 a.m.	109.6
29	6:45 p.m.	126.0	19	7:30 a.m.	109.9	15	7:30 a.m.	109.7
30	8:00 a.m.	108.6	20	7:30 a.m.	109.4	16	7:30 a.m.	109.1
30	5:30 p.m.	127.2	21	7:00 a.m.	109.4	17	8:00 a.m.	109.1
Oct. 1	7:30 a.m.	109.0	22	8:00 a.m.	109.3	Well 55		
2	7:45 a.m.	108.9	23	8:15 a.m.	109.3	City of Big Spring. 5 miles southeast of Big Spring.		
3	7:00 a.m.	108.7	24	7:45 a.m.	109.0	Measuring point is top of 12 inch casing, 1 foot above ground. Nearest pumping well is 250 feet northwest.		
4	8:00 a.m.	108.8	25	7:30 a.m.	109.3	Feb. 12	--	--
5	8:00 a.m.	108.8	26	7:30 a.m.	109.6	May 6	2:55 p.m.	159.1
6	7:30 a.m.	108.1	27	7:30 a.m.	109.0	June 17	8:00 a.m.	143.6
7	7:30 a.m.	109.0	28	7:00 a.m.	109.0	19	8:50 a.m.	144.8
8	7:30 a.m.	109.2	29	7:30 a.m.	109.0	23	10:45 a.m.	149.4
9	7:30 a.m.	109.5	30	7:30 a.m.	108.1	25	10:00 a.m.	169.8
10	6:30 a.m.	109.0	Dec. 1	8:00 a.m.	108.1	July 8	2:45 p.m.	128.2
11	8:00 a.m.	110.0	2	8:00 a.m.	108.1	10	10:25 a.m.	131.1
12	6:30 a.m.	109.0	3	7:45 a.m.	108.1	17	1:20 p.m.	190.1
14	7:45 a.m.	109.0	4	8:00 a.m.	108.1	21	10:25 a.m.	165.3
15	7:00 a.m.	109.0	5	8:00 a.m.	108.1	Well 56		
16	12:30 p.m.	109.3	6	8:00 a.m.	108.1	City of Big Spring. 4-3/4 miles southeast of Big Spring.		
17	12:05 p.m.	109.0	7	8:00 a.m.	108.9	Measuring point is top of 8 inch casing, 1 foot above ground. Nearest pumping well is 400 feet north.		
18	7:45 a.m.	109.0	8	8:00 a.m.	109.6	Feb. 3	4:00 p.m.	135.2
19	12:00 a.m.	108.6	9	8:00 a.m.	109.6	20	--	--
20	8:00 a.m.	109.0	10	8:00 a.m.	110.2	May 6	2:30 p.m.	159.1
21	1:00 p.m.	109.0	11	7:30 a.m.	109.4	(Continued on next page)		
22	12:15 p.m.	109.0	12	7:30 a.m.	109.9			
23	10:30 a.m.	109.0	13	8:00 a.m.	110.0			
24	10:00 a.m.	109.3	14	7:30 a.m.	109.5			
25	9:15 a.m.	109.0	15	8:00 a.m.	109.9			
26	9:45 a.m.	108.1	16	7:30 a.m.	109.5			
27	8:00 a.m.	109.0	17	7:00 a.m.	109.2			
28	7:00 a.m.	109.0	18	7:00 a.m.	109.9			
29	7:45 a.m.	108.7	19	7:30 a.m.	109.1			
30	8:00 a.m.	109.2	20	8:00 a.m.	109.3			

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 56--Continued			Well 56--Continued			Well 56--Continued		
May 7	10:15 a.m.	151.7	Aug. 7	5:45 a.m.	156.9	Sept. 2	6:00 a.m.	144.5
June 17	9:20 a.m.	145.5	7	8:45 p.m.	162.6	2	7:00 p.m.	159.4
19	10:50 a.m.	138.7	8	5:45 a.m.	155.4	3	6:15 a.m.	146.1
25	11:30 a.m.	152.4	8	8:00 p.m.	167.0	3	5:00 p.m.	158.1
July 8	3:15 p.m.	128.5	9	6:00 a.m.	153.1	4	6:00 a.m.	143.7
10	10:50 a.m.	131.0	9	5:00 p.m.	163.9	4	6:30 p.m.	155.0
16	6:00 a.m.	147.3	10	5:45 a.m.	146.6	5	6:30 a.m.	140.1
16	8:00 p.m.	162.9	10	7:00 p.m.	160.8	5	6:15 p.m.	154.3
17	6:00 a.m.	146.4	11	5:45 a.m.	146.1	6	7:00 a.m.	140.0
17	1:00 p.m.	156.8	11	7:00 p.m.	162.4	6	7:00 p.m.	156.4
17	8:00 p.m.	162.0	12	6:00 a.m.	147.5	7	6:20 a.m.	143.1
18	6:00 a.m.	144.5	12	8:00 p.m.	164.4	8	6:30 a.m.	138.0
18	8:00 p.m.	161.5	13	6:00 a.m.	151.7	8	9:30 a.m.	143.8
19	6:00 a.m.	146.5	13	9:00 p.m.	166.1	8	7:00 p.m.	155.6
19	8:00 p.m.	163.1	14	6:00 a.m.	154.2	9	6:30 a.m.	142.0
20	6:00 a.m.	147.4	14	9:15 p.m.	167.9	11	6:30 a.m.	129.0
20	8:00 p.m.	163.6	15	5:45 a.m.	156.8	11	7:15 p.m.	150.8
21	6:00 a.m.	150.3	15	7:00 p.m.	167.2	12	6:15 a.m.	137.1
21	11:15 a.m.	158.0	16	6:00 a.m.	156.6	12	7:00 p.m.	155.9
21	7:30 p.m.	164.3	16	9:15 p.m.	166.2	13	6:00 a.m.	141.7
22	6:00 a.m.	149.5	17	6:00 a.m.	154.1	14	6:30 a.m.	143.6
22	5:00 p.m.	162.5	17	8:15 p.m.	166.1	14	7:00 p.m.	162.5
23	6:00 a.m.	143.2	18	6:00 a.m.	155.0	15	6:30 a.m.	146.7
23	6:00 p.m.	153.1	18	9:30 p.m.	167.1	15	6:15 p.m.	163.8
24	6:00 a.m.	137.9	19	5:45 a.m.	156.1	16	6:00 a.m.	147.3
24	7:00 p.m.	158.4	19	8:00 p.m.	167.9	17	5:15 a.m.	150.1
25	6:00 a.m.	142.6	20	5:45 a.m.	155.4	17	7:00 p.m.	162.1
25	6:15 p.m.	158.8	20	9:00 p.m.	162.6	18	6:45 a.m.	147.6
26	6:30 a.m.	138.4	21	5:45 a.m.	156.0	18	6:30 p.m.	160.1
26	6:15 p.m.	155.8	21	7:30 p.m.	167.0	19	6:45 a.m.	145.7
27	6:00 a.m.	140.4	22	5:45 a.m.	154.0	19	6:00 p.m.	158.8
27	8:00 p.m.	160.0	22	8:00 p.m.	166.9	20	7:00 a.m.	141.1
28	6:00 a.m.	144.3	23	6:00 a.m.	154.4	20	3:00 p.m.	147.3
28	9:50 p.m.	163.0	23	7:00 p.m.	166.2	21	6:15 a.m.	134.5
29	6:00 a.m.	151.8	24	6:15 a.m.	151.4	22	7:00 a.m.	129.1
29	7:40 p.m.	165.1	24	6:00 p.m.	165.5	23	7:00 a.m.	134.1
30	6:00 a.m.	154.2	25	6:00 a.m.	150.1	23	7:30 p.m.	150.0
30	6:00 p.m.	164.8	25	8:30 p.m.	165.1	25	6:30 a.m.	127.1
31	4:30 a.m.	150.2	26	6:15 a.m.	153.0	25	6:45 p.m.	150.6
31	6:15 p.m.	164.2	26	8:00 p.m.	167.7	26	8:00 a.m.	133.8
Aug. 1	5:15 a.m.	159.1	27	6:00 a.m.	154.1	26	5:30 p.m.	152.8
1	1:00 p.m.	163.2	27	8:15 p.m.	163.9	27	8:00 a.m.	133.2
2	6:00 a.m.	147.8	28	6:00 a.m.	151.8	27	6:45 p.m.	144.0
2	4:30 p.m.	160.4	28	9:30 p.m.	167.1	28	8:00 a.m.	130.4
3	5:45 a.m.	142.0	29	6:00 a.m.	157.1	28	6:30 p.m.	140.2
3	8:45 p.m.	161.9	29	6:45 p.m.	165.6	29	7:30 a.m.	130.1
4	5:15 a.m.	148.1	30	6:00 a.m.	151.5	29	6:45 p.m.	136.2
4	9:00 p.m.	165.1	30	1:00 p.m.	158.1	30	8:00 a.m.	129.6
5	5:45 a.m.	154.4	31	6:00 a.m.	140.9	30	5:30 p.m.	137.3
5	8:45 p.m.	166.5	31	3:15 p.m.	155.1	Oct. 1	7:30 a.m.	129.1
6	5:30 a.m.	155.3	Sept. 1	6:00 a.m.	139.2	1	7:00 p.m.	135.2
6	9:15 p.m.	168.4	1	7:30 p.m.	157.6	2	7:45 a.m.	128.1

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 56--Continued			Well 56--Continued			Well 60		
Oct. 3	7:00 a.m.	128.9	Nov. 24	7:45 a.m.	127.5	City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 12 inch casing, 1 foot above ground. Nearest pumping well is 500 feet northeast.		
4	8:00 a.m.	128.7	25	7:30 a.m.	128.1	Feb. 12	-- --	133.1
5	8:00 a.m.	127.2	26	7:30 a.m.	129.3	20	4:00 p.m.	150.6
6	7:30 a.m.	123.1	27	7:30 a.m.	127.0	May 6	1:40 p.m.	155.2
7	7:30 a.m.	127.4	28	7:00 a.m.	127.2	29	1:25 p.m.	140.0
8	7:30 a.m.	127.2	29	7:30 a.m.	125.6	June 17	9:50 a.m.	154.7
9	7:30 a.m.	127.5	30	7:30 a.m.	126.8	19	9:15 a.m.	153.1
10	6:30 a.m.	125.6	Dec. 1	8:00 a.m.	126.8	23	9:00 a.m.	155.1
11	8:00 a.m.	130.8	2	8:00 a.m.	126.5	25	8:55 a.m.	154.5
12	6:30 a.m.	126.2	3	7:45 a.m.	126.1	July 8	1:00 p.m.	139.8
13	12:05 p.m.	125.7	4	8:00 a.m.	126.1	10	8:30 a.m.	141.5
14	7:45 a.m.	126.1	5	8:00 a.m.	126.1	17	11:10 a.m.	157.7
15	7:00 a.m.	124.1	6	8:00 a.m.	126.6	21	9:35 a.m.	159.3
16	12:30 a.m.	126.6	7	8:00 a.m.	126.8	Sept. 8	9:30 a.m.	159.7
17	12:00 a.m.	126.7	8	8:00 a.m.	130.0	Well 61		
18	7:45 a.m.	126.6	9	8:00 a.m.	129.1	City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 12½ inch casing, 1 foot above ground. Nearest pumping well is 600 feet north.		
19	12:10 p.m.	124.0	10	8:00 a.m.	131.4	Feb. 13	-- --	131.4
20	8:00 a.m.	127.5	11	7:30 a.m.	128.3	May 6	1:10 p.m.	150.1
21	1:00 p.m.	127.0	12	7:30 a.m.	130.3	7	11:20 a.m.	137.1
22	12:45 p.m.	125.4	13	8:00 a.m.	129.7	29	1:45 p.m.	139.6
23	10:30 a.m.	125.3	14	7:30 a.m.	127.5	June 17	10:25 a.m.	150.2
24	10:00 a.m.	127.0	15	8:00 a.m.	129.6	19	9:45 a.m.	149.1
25	9:15 a.m.	126.6	16	7:30 a.m.	128.9	23	8:30 a.m.	147.6
26	9:45 a.m.	126.0	17	7:00 a.m.	128.2	25	8:15 a.m.	149.7
27	8:00 a.m.	126.8	18	7:00 a.m.	130.0	July 8	11:45 a.m.	138.7
28	7:00 a.m.	127.7	19	7:30 a.m.	130.6	10	8:00 a.m.	140.1
29	7:45 a.m.	126.0	20	8:00 a.m.	127.1	16	6:00 a.m.	140.1
30	8:00 a.m.	128.1	21	7:30 a.m.	128.0	16	8:00 p.m.	153.1
31	8:15 a.m.	126.1	22	7:45 a.m.	129.2	17	6:00 a.m.	140.1
Nov. 1	8:15 a.m.	128.6	23	7:45 a.m.	129.9	17	11:00 a.m.	153.9
2	7:45 a.m.	127.3	24	7:30 a.m.	129.1	17	8:00 p.m.	153.3
3	7:30 a.m.	129.7	25	8:00 a.m.	127.1	18	6:00 a.m.	140.1
4	8:15 a.m.	127.1	29	7:45 a.m.	125.1	19	6:00 p.m.	141.4
5	8:30 a.m.	126.1	30	7:30 a.m.	128.0	20	6:00 a.m.	141.1
6	8:00 a.m.	128.8	31	7:45 a.m.	127.1	21	6:00 a.m.	141.9
7	8:00 a.m.	129.1	1937			21	9:00 a.m.	152.2
8	8:15 a.m.	128.1	Jan. 1	8:00 a.m.	127.2	21	8:00 p.m.	154.4
9	8:15 a.m.	125.1	2	7:30 a.m.	128.6	23	6:00 p.m.	141.3
10	8:00 a.m.	126.5	3	8:00 a.m.	126.1	23	6:00 p.m.	152.3
11	8:00 a.m.	126.1	4	8:00 a.m.	128.2	24	6:00 a.m.	141.0
12	8:00 a.m.	126.4	5	7:45 a.m.	126.1	24	7:30 p.m.	151.6
13	8:00 a.m.	129.9	6	7:30 a.m.	126.5	(Continued on next page)		
14	8:00 a.m.	126.4	7	7:30 a.m.	127.1	a/ All water levels measured in 1936 unless otherwise noted.		
15	8:00 a.m.	128.0	12	8:00 a.m.	131.9			
16	8:00 a.m.	127.5	13	8:00 a.m.	128.1			
17	7:45 a.m.	125.6	14	7:45 a.m.	130.3			
18	8:00 a.m.	129.5	15	7:30 a.m.	131.1			
19	7:30 a.m.	129.9	16	7:30 a.m.	130.1			
20	7:50 a.m.	129.2	17	8:00 a.m.	130.7			
21	7:00 a.m.	128.0	24	9:00 a.m.	123.0			
22	8:00 a.m.	128.7						
23	8:15 a.m.	128.0						

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 61--Continued			Well 61--Continued			Well 65--Continued		
July 25	6:00 a.m.	141.6	Aug. 23	6:00 a.m.	145.6	8 inch casing in concrete slab, 1.5 feet above ground.		
26	6:30 a.m.	141.0	24	6:15 a.m.	145.2	Nearest pumping well is 54, 400 feet west.		
26	7:00 p.m.	153.0	24	6:00 p.m.	157.7	1935		
27	6:00 a.m.	141.5	25	6:00 a.m.	145.3	June 24	5:30 a.m.	112.4
27	8:00 p.m.	151.0	Sept. 8	9:15 a.m.	155.2	24	1:50 p.m.	131.1
28	6:00 a.m.	141.9	Well 62			25	5:31 a.m.	112.4
28	9:50 p.m.	155.3	City of Big Spring. 4-3/4 miles southeast of Big Spring.			25	5:44 p.m.	132.1
29	6:00 a.m.	142.2	Measuring point is top of 12 1/2 inch casing, 1.17 feet above ground. Nearest pumping well is 900 feet east.			25	5:30 a.m.	114.3
29	7:40 p.m.	155.5	Feb. 19	-- --	144.1	26	4:21 p.m.	132.2
30	6:00 a.m.	142.4	20	2:40 p.m.	143.3	26	5:25 a.m.	114.6
30	6:00 p.m.	150.8	21	4:00 p.m.	168.5	27	8:27 p.m.	124.7
Aug. 1	5:50 a.m.	142.9	May 6	2:05 p.m.	152.9	27	5:36 a.m.	115.1
1	7:00 p.m.	155.3	29	2:20 p.m.	152.6	28	9:06 p.m.	131.3
2	6:00 a.m.	142.6	June 17	10:50 a.m.	155.2	29	5:27 a.m.	117.3
2	4:30 p.m.	155.0	19	10:15 a.m.	154.9	July 1	5:25 a.m.	115.2
3	5:45 a.m.	142.3	23	9:25 a.m.	154.7	1	9:00 p.m.	131.8
3	8:45 p.m.	154.9	25	9:35 a.m.	154.5	2	5:32 a.m.	117.4
4	5:15 a.m.	142.1	July 8	1:25 p.m.	153.9	2	9:01 p.m.	131.8
4	9:00 p.m.	155.9	10	8:55 a.m.	155.0	3	5:19 a.m.	118.0
5	5:45 a.m.	143.5	17	11:15 a.m.	157.6	3	7:09 p.m.	128.8
5	8:45 p.m.	156.4	21	10:00 a.m.	159.5	3	5:08 a.m.	117.5
6	5:30 a.m.	143.5	Sept. 8	9:45 a.m.	162.0	4	6:53 p.m.	133.7
6	9:15 p.m.	156.8	Well 64			4	5:25 a.m.	117.5
7	5:45 a.m.	143.8	City of Big Spring. 5 miles southeast of Big Spring.			4	6:58 p.m.	133.7
7	8:45 p.m.	153.0	Measuring point is top of 12 1/2 inch casing, 1.71 feet above ground. Nearest pumping well is 150 feet west.			5	5:25 a.m.	117.5
8	5:45 a.m.	142.0	Feb. 11	-- --	129.1	5	9:50 p.m.	130.8
8	8:00 p.m.	156.2	21	4:00 p.m.	153.2	6	5:10 a.m.	119.1
9	6:00 a.m.	144.0	May 6	3:50 p.m.	133.1	6	9:40 p.m.	132.1
9	5:00 p.m.	155.2	June 17	8:50 a.m.	128.6	7	5:13 a.m.	119.6
10	5:45 a.m.	143.8	19	8:30 a.m.	127.8	8	5:10 a.m.	115.9
10	7:00 p.m.	155.4	23	10:15 a.m.	129.1	8	10:36 p.m.	128.9
11	5:45 a.m.	143.8	25	11:00 a.m.	137.8	9	5:13 a.m.	119.5
11	7:00 p.m.	155.3	July 8	2:15 p.m.	118.4	9	9:49 p.m.	128.9
12	6:00 a.m.	143.9	10	9:55 a.m.	119.9	10	5:23 a.m.	119.9
13	6:00 a.m.	143.1	17	1:30 p.m.	143.8	11	5:14 a.m.	121.7
14	6:00 a.m.	141.0	21	11:00 a.m.	138.5	11	9:35 p.m.	135.2
15	5:45 a.m.	141.6	Sept. 8	10:10 a.m.	132.0	Aug. 6	5:45 a.m.	116.1
15	7:00 p.m.	156.1	Well 65			6	10:09 p.m.	135.1
16	6:00 a.m.	145.0	City of Big Spring. 5 miles southeast of Big Spring.			7	5:35 a.m.	120.2
16	9:15 p.m.	157.0	Measuring point is top of			7	10:36 p.m.	135.1
17	6:00 a.m.	145.0				8	5:29 a.m.	121.6
17	8:15 p.m.	157.3				9	5:31 a.m.	119.1
18	6:00 a.m.	145.2				9	6:14 p.m.	136.4
18	7:00 p.m.	156.9				10	6:46 a.m.	139.6
19	5:15 a.m.	145.1				10	6:05 p.m.	140.0
19	8:00 p.m.	157.1				11	5:35 a.m.	124.2
20	5:45 a.m.	145.1				11	7:10 p.m.	141.8
20	7:00 p.m.	157.1				12	5:43 a.m.	122.1
21	5:45 a.m.	145.5				12	9:05 p.m.	143.7
21	7:00 p.m.	157.5				Sept. 1	6:03 a.m.	117.5
22	5:45 a.m.	145.5				2	6:25 a.m.	116.6
22	7:30 p.m.	157.4				3	6:21 a.m.	114.8

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a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 65--Continued			Well 65--Continued			Well 65--Continued		
Sept. 4	6:06 a.m.	117.1	July 29	6:00 a.m.	127.9	Aug. 24	6:15 a.m.	129.1
5	6:11 a.m.	115.8	29	7:40 p.m.	148.4	24	6:00 p.m.	149.9
6	6:14 a.m.	114.6	30	6:00 a.m.	128.4	25	6:00 a.m.	129.5
7	5:55 a.m.	115.1	30	6:00 p.m.	145.6	25	8:30 p.m.	145.3
8	6:21 a.m.	115.5	31	4:30 a.m.	127.7	26	8:00 p.m.	150.1
9	6:21 a.m.	116.2	31	6:15 p.m.	140.6	27	6:00 a.m.	130.8
10	5:58 a.m.	115.8	Aug. 1	5:15 a.m.	127.4	27	8:15 p.m.	150.5
11	5:50 a.m.	116.2	1	7:00 p.m.	141.1	28	6:00 a.m.	130.2
11	4:05 p.m.	137.3	2	6:00 a.m.	127.3	28	9:30 p.m.	145.1
12	6:12 a.m.	116.9	2	4:30 p.m.	140.5	29	6:00 a.m.	130.1
12	4:58 p.m.	138.2	3	5:45 a.m.	125.1	30	6:00 a.m.	129.6
13	6:16 a.m.	117.6	3	8:45 p.m.	140.2	30	1:00 p.m.	140.1
1936			4	5:45 a.m.	127.6	31	6:00 a.m.	126.1
Feb. 12	11:00 a.m.	130.8	4	9:00 p.m.	148.8	31	3:15 p.m.	138.1
May 1	-- --	124.9	5	5:45 a.m.	128.7	Sept. 1	6:00 a.m.	126.5
6	3:20 p.m.	137.1	5	8:45 p.m.	149.3	1	7:30 p.m.	140.0
7	10:40 a.m.	124.9	6	5:30 a.m.	128.1	2	6:00 a.m.	127.1
29	3:20 p.m.	121.7	6	9:15 p.m.	150.0	2	7:00 a.m.	140.6
June 17	8:25 a.m.	130.4	7	5:45 a.m.	129.4	3	6:15 a.m.	128.4
19	8:00 a.m.	131.7	7	8:45 p.m.	143.3	4	6:00 a.m.	127.4
23	9:50 a.m.	130.7	8	5:45 a.m.	129.5	4	6:30 p.m.	139.6
25	10:40 a.m.	138.7	8	8:00 p.m.	148.3	5	6:30 a.m.	122.7
July 8	1:50 p.m.	120.7	9	6:00 a.m.	129.1	5	6:15 p.m.	139.0
10	9:35 a.m.	121.1	9	5:00 p.m.	140.1	6	7:00 a.m.	127.3
16	6:00 a.m.	125.1	10	5:45 a.m.	127.8	6	7:00 p.m.	140.0
16	8:00 p.m.	147.9	10	7:00 p.m.	147.0	7	6:20 a.m.	128.1
17	6:00 a.m.	125.1	11	5:45 a.m.	127.6	8	6:30 a.m.	126.7
17	11:30 a.m.	137.2	11	7:00 p.m.	143.5	8	10:05 a.m.	136.0
17	8:00 p.m.	143.0	12	6:00 a.m.	127.8	8	7:00 p.m.	139.8
18	6:00 a.m.	125.6	12	8:00 p.m.	149.5	9	6:30 a.m.	127.1
18	8:00 p.m.	138.1	13	6:00 a.m.	128.1	11	6:30 a.m.	123.9
19	6:00 a.m.	126.5	13	9:00 p.m.	149.6	11	7:15 p.m.	137.9
19	8:00 p.m.	146.9	14	6:00 a.m.	129.3	12	6:15 a.m.	126.6
20	6:00 a.m.	126.1	14	9:15 p.m.	150.0	12	7:00 p.m.	139.5
20	8:00 p.m.	145.7	15	5:45 a.m.	130.0	13	6:00 a.m.	127.5
21	6:00 a.m.	127.3	15	7:00 p.m.	149.8	14	6:30 a.m.	127.9
21	10:40 a.m.	141.4	16	6:00 a.m.	130.0	15	6:30 a.m.	129.0
21	7:30 p.m.	146.0	16	9:15 p.m.	146.8	15	6:15 p.m.	148.1
22	6:00 a.m.	127.0	17	6:00 a.m.	130.0	16	6:00 a.m.	129.2
22	5:00 a.m.	140.1	17	8:15 p.m.	148.1	20	7:00 a.m.	128.0
22	6:00 a.m.	125.6	18	6:00 a.m.	130.2	20	3:00 p.m.	136.6
23	5:00 p.m.	142.9	18	9:30 p.m.	144.0	21	6:15 a.m.	126.0
24	6:00 a.m.	124.1	19	5:45 a.m.	130.6	22	7:00 a.m.	124.5
24	7:00 p.m.	145.6	19	8:00 p.m.	149.0	23	7:00 a.m.	125.6
25	6:00 a.m.	125.6	20	5:45 a.m.	130.2	23	7:30 p.m.	135.6
25	6:15 p.m.	136.6	20	9:00 p.m.	143.0	25	6:30 a.m.	123.0
26	6:30 a.m.	124.3	21	5:45 a.m.	130.6	25	6:45 p.m.	131.1
26	6:15 p.m.	138.0	21	7:30 p.m.	149.3	26	8:00 a.m.	124.1
27	6:00 a.m.	125.0	22	5:45 a.m.	130.5	26	5:30 p.m.	133.6
27	8:00 p.m.	139.2	22	8:00 p.m.	150.2	27	8:00 a.m.	124.9
28	6:00 a.m.	126.1	23	6:00 a.m.	130.4	27	6:45 p.m.	132.1
28	9:50 p.m.	147.1	23	7:00 p.m.	143.1	28	8:00 a.m.	123.9

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)	Date of measurement 1936 a/	Time	Depth of water (feet)
Well 65--Continued			Well 65--Continued			Well 65--Continued		
Sept. 28	6:30 p.m.	139.2	Nov. 17	7:45 a.m.	121.2	Jan. 13	8:00 a.m.	121.1
29	7:30 a.m.	124.0	18	8:00 a.m.	122.4	14	7:45 a.m.	122.5
29	6:45 p.m.	138.4	19	7:30 a.m.	122.8	15	7:30 a.m.	122.9
30	8:00 a.m.	125.6	20	7:30 a.m.	122.3	16	7:30 a.m.	122.8
30	5:30 p.m.	139.0	21	7:00 a.m.	122.0	17	8:00 a.m.	122.7
Oct. 1	7:30 a.m.	123.8	22	8:00 a.m.	122.2	24	9:00 a.m.	123.4
2	7:45 a.m.	123.4	23	8:15 a.m.	121.1	Well 67		
3	7:00 a.m.	123.2	24	7:45 a.m.	121.8	City of Big Spring. 5 miles southeast of Big Spring. Measuring point is top of 8 1/4 inch casing, 21.17 feet above ground. Nearest pumping well is 700 feet west.		
4	8:00 a.m.	123.3	25	7:30 a.m.	122.1	Feb. 12	--	--
5	8:00 a.m.	122.8	26	7:30 a.m.	122.3	20	4:00 p.m.	146.0
6	7:30 a.m.	122.7	27	7:30 a.m.	121.7	Well 68		
7	7:30 a.m.	122.1	28	7:00 a.m.	121.7	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12 1/2 inch casing, 1.5 feet above ground. Nearest pumping well is 1,350 feet west.		
8	7:30 a.m.	122.7	29	7:30 a.m.	121.1	Feb. 17	--	--
9	7:30 a.m.	122.9	30	7:30 a.m.	121.4	May 7	8:45 a.m.	73.4
10	6:30 a.m.	121.1	Dec. 1	8:00 a.m.	121.5	July 17	2:30 p.m.	74.5
11	8:00 a.m.	123.8	2	8:00 a.m.	121.3	21	12:30 p.m.	75.0
12	6:30 a.m.	122.1	3	7:45 a.m.	121.5	Well 69		
13	12:05 p.m.	121.1	4	8:00 a.m.	121.6	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 12 1/2 inch casing, 1.17 feet above ground. Nearest pumping well is 1,650 feet southwest.		
14	7:45 a.m.	122.0	5	8:00 a.m.	121.4	Feb. 17	--	--
15	7:00 a.m.	121.6	6	8:00 a.m.	121.4	May 7	9:20 a.m.	64.7
16	12:30 p.m.	122.1	7	8:00 a.m.	121.4	July 17	3:00 p.m.	64.7
17	12:00 a.m.	122.0	8	8:00 a.m.	122.4	21	12:45 p.m.	64.6
18	7:45 a.m.	121.1	9	8:00 a.m.	122.1	Well 70		
19	12:10 p.m.	120.1	10	8:00 a.m.	123.0	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.		
20	8:00 a.m.	122.2	11	7:30 a.m.	122.0	Feb. 17	--	--
21	1:00 p.m.	122.1	12	7:30 a.m.	122.7	May 7	9:20 a.m.	64.7
22	12:45 p.m.	121.7	13	8:00 a.m.	122.5	July 17	3:00 p.m.	64.7
23	10:30 a.m.	121.4	14	7:30 a.m.	121.1	21	12:45 p.m.	64.6
24	10:00 a.m.	121.1	15	8:00 a.m.	122.6	Well 70		
25	9:15 a.m.	121.7	16	7:30 a.m.	122.0	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.		
26	9:45 a.m.	121.6	17	7:00 a.m.	122.1	Feb. 17	--	--
27	8:00 a.m.	121.8	18	7:00 a.m.	122.8	May 7	9:20 a.m.	64.7
28	7:00 a.m.	122.0	19	7:30 a.m.	122.1	July 17	3:00 p.m.	64.7
29	7:45 a.m.	121.4	20	8:00 a.m.	121.1	21	12:45 p.m.	64.6
30	8:00 a.m.	122.3	21	7:30 a.m.	122.0	Well 70		
31	8:15 a.m.	121.6	22	7:45 a.m.	122.4	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.		
Nov. 1	8:15 a.m.	122.3	23	7:45 a.m.	122.8	Feb. 17	--	--
2	7:45 a.m.	121.9	24	7:30 a.m.	122.5	May 7	9:20 a.m.	64.7
3	7:30 a.m.	122.1	25	8:00 a.m.	121.7	July 17	3:00 p.m.	64.7
4	8:15 a.m.	121.1	26	6:00 a.m.	121.6	21	12:45 p.m.	64.6
5	8:30 a.m.	121.5	29	7:45 a.m.	120.6	Well 70		
6	8:00 a.m.	122.4	30	7:30 a.m.	121.7	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.		
7	8:00 a.m.	122.7	31	7:45 a.m.	121.7	Feb. 17	--	--
8	6:15 a.m.	122.6	1937			Well 70		
9	6:15 a.m.	121.5	Jan. 1	8:00 a.m.	121.4	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.		
10	8:00 a.m.	121.6	2	7:30 a.m.	121.1	Feb. 17	--	--
11	8:00 a.m.	121.8	3	8:00 a.m.	121.6	May 7	9:20 a.m.	64.7
12	8:00 a.m.	121.4	4	8:00 a.m.	121.8	July 17	3:00 p.m.	64.7
13	8:00 a.m.	122.9	5	7:45 a.m.	121.4	21	12:45 p.m.	64.6
14	8:00 a.m.	121.1	6	7:30 a.m.	121.1	Well 70		
15	8:00 a.m.	122.0	7	7:30 a.m.	121.7	City of Big Spring. 4-3/4 miles southeast of Big Spring. Measuring point is top of 10 inch casing, 1.17 feet above ground. Nearest pumping well is 1,700 feet west.		
16	8:00 a.m.	121.9	12	8:00 a.m.	122.8	Feb. 17	--	--

(Continued on next page)

a/ All water levels measured in 1936 unless otherwise noted.

Water level measurements of observation wells in Howard County--Continued

Date of measure- ment 1936 a/	Time	Depth of water (feet)	Date of measure- ment 1936 a/	Time	Depth of water (feet)	Date of measure- ment 1936 a/	Time	Depth of water (feet)
Well 70--Continued			Well 84--Continued			Well 85--Continued		
May 7	9:45 a.m.	59.1	well is 600 feet south.			May 8	9:30 a.m.	169.4
July 17	3:30 p.m.	59.8	Jan. 21	-- --	179.3	12	11:40 a.m.	169.2
21	1:00 p.m.	59.8	May 5	2:15 p.m.	194.4	June 22	1:30 p.m.	169.1
Well 71			8	9:35 a.m.	193.1	Well 86		
City of Big Spring, 5 miles			12	1:30 p.m.	194.5	T. and P. R. R. Co. $1\frac{1}{2}$ miles		
southeast of Big Spring.			June 22	1:00 p.m.	195.2	south of Big Spring. Measur-		
Measuring point is top of 10			24	8:00 a.m.	194.4	ing point is top of concrete		
inch casing, level with			July 3	4:05 p.m.	194.6	block, 0.75 foot above		
ground. Nearest pumping well			10	5:10 p.m.	155.2	ground. Nearest pumping well		
1,600 feet east.			20	4:20 p.m.	200.0	is 600 feet south.		
Feb. 12	9:00 a.m.	57.4	22	9:40 a.m.	203.3	Jan. 21	-- --	180.1
May 6	11:45 a.m.	58.0	Sept. 17	12:50 p.m.	215.7	May 5	4:00 p.m.	193.1
29	2:40 p.m.	59.7	Well 85			8	9:20 a.m.	193.1
Sept. 22	8:30 a.m.	57.6	T. and P. R. R. Co. $1\frac{1}{2}$ miles			12	11:00 a.m.	193.6
Well 84			south of Big Spring. Measur-			June 22	1:50 p.m.	194.2
T. and P. R. R. Co. $1\frac{1}{2}$ miles			ing point is top of concrete			24	8:30 a.m.	194.7
south of Big Spring. Measur-			block, 1.58 feet above			July 3	3:15 p.m.	193.5
ing point is top of concrete			ground. Nearest pumping well					
block, 1.42 feet above			is 650 feet south.					
ground. Nearest pumping			Jan. 21	-- --	181.0			
			May 5	3:30 p.m.	169.4			

w/ All water levels measured in 1936 unless otherwise noted.

Table of Drillers' Logs, Howard County, Texas

Driller's log of well 4
1 1/8 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Soil- - - - -	3	3
Yellow clay and gravel- - -	-14	17
Shell rock- - - - -	-13	30
White lime rock- - - - -	-70	100
Yellow lime rock- - - - -	-27	127
White lime with crevice and water- - - - -	-15	142
Blue shale- - - - -	-53	195
Pink sand rock- - - - -	-14	209
Yellow sand- - - - -	6	215
Yellow sand and gravel- - -	5	220
Yellow sand rock- - - - -	5	225
Light yellow sand - - - - -	6	231
Yellow sand- - - - -	5	236
Pink sand- - - - -	8	244
Red clay and sand- - - - -	7	251
Yellow sand and water- - - -	-21	272
Pink sand and gravel, water -	8	280
Red bed, clay- - - - -	3	283

Driller's log of well 6
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Boulders- - - - -	6	6
Sandstone- - - - -	-24	30
Yellow sandstone- - - - -	5	35
White sandstone- - - - -	-15	50
Red rock- - - - -	-10	60
Sand and gravel, water- - -	-10	70
Red rock- - - - -	-11	81
Sandstone- - - - -	-26	107
Sand and gravel- - - - -	-21	128
Sandstone- - - - -	2	130
Red bed- - - - -	3	133

Driller's log of well 8
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Boulders - - - - -	6	6
White sandstone- - - - -	16	22
Yellow sandstone- - - - -	10	32
White sand- - - - -	16	48
Sandstone- - - - -	8	56
Sand and gravel, water- - -	5	61
Red rock- - - - -	15	76
Sandstone- - - - -	19	95
Sand and gravel- - - - -	13	108
Red rock- - - - -	4	112
Sand and gravel- - - - -	13	125
Yellow sandstone- - - - -	2	127
Red bed- - - - -	3	130

Driller's log of well 9
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil- - - - -	-14	14
Yellow sand- - - - -	-11	25
Blue shale- - - - -	7	32
Yellow sandstone- - - - -	-15	47
White sand- - - - -	-10	57
Red sandstone- - - - -	9	66
White sand- - - - -	9	75
Sand- - - - -	5	80
Sandstone- - - - -	5	85
Red rock- - - - -	8	93
Sand- - - - -	-10	103
Gravel, water - - - - -	-12	115
Red rock- - - - -	-15	130
Yellow sandstone- - - - -	6	136
Red bed- - - - -	4	140

Driller's log of well 9a
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Boulders - - - - -	12	12
Yellow sandstone- - - - -	23	35
White sand- - - - -	7	42
Red rock- - - - -	8	50
Sand and gravel, water- - -	12	62
Red rock- - - - -	9	71
Sandstone- - - - -	27	98
Sand and gravel- - - - -	22	120
Red bed- - - - -	6	126

Driller's log of well 10
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Boulders - - - - -	6	6
Sandstone- - - - -	21	27
Blue shale- - - - -	20	47
Yellow sandstone- - - - -	17	64
White sand- - - - -	14	78
Sandstone- - - - -	9	87
Red rock- - - - -	16	103
Sand- - - - -	4	107
Sandstone- - - - -	5	112
Sand and gravel, water - - -	18	130
Red rock- - - - -	7	137
Sandstone- - - - -	9	146
Red rock- - - - -	8	154
Sandstone- - - - -	8	162
Red bed- - - - -	2	164

Driller's log of well 14
2 miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Boulders - - - - -	3	3
Yellow sandstone- - - - -	17	20
Blue shale- - - - -	10	30
White sandstone - - - - -	19	39
Yellow sandstone- - - - -	12	51
White sand- - - - -	11	62

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 14--Continued

	Thickness (feet)	Depth (feet)
Sandstone- - - - -	15	77
Sand and gravel, little water	9	86
Red rock- - - - -	3	89
Sandstone- - - - -	5	94
White sand- - - - -	14	118
Sand and gravel- - - - -	11	129
Red rock- - - - -	8	137
Sandstone- - - - -	6	143
Red bed- - - - -	3	146

Driller's log of well 15

2 miles south of Big Spring.		
	Thickness	Depth
Boulders - - - - -	5	5
Gray sandstone- - - - -	30	35
Yellow sandstone- - - - -	10	45
Water sand- - - - -	10	55
Red rock- - - - -	12	67
Sand, and gravel, water- - -	13	80
White rock- - - - -	18	98
Sand- - - - -	9	107
Sandstone- - - - -	14	124
Sand and gravel- - - - -	12	136
Red bed- - - - -	2	138

Driller's log of well 16

2 miles south of Big Spring.		
	Thickness	Depth
Surface soil- - - - -	11	11
White lime- - - - -	19	30
Blue lime- - - - -	24	54
Yellow sandstone- - - - -	13	67
Red rock- - - - -	16	83
Sand- - - - -	12	95
Sand and gravel, water- - -	10	105
Sand- - - - -	15	120
Sandstone- - - - -	10	130
Red rock- - - - -	15	145
Sand- - - - -	10	155
Red bed, clay- - - - -	5	160

Driller's log of well 17

2 miles south of Big Spring.		
	Thickness	Depth
Boulders- - - - -	8	8
Sandstone- - - - -	22	30
Blue shale- - - - -	12	42
Yellow sandstone- - - - -	18	60
White sand- - - - -	10	70
Red rock- - - - -	11	81
Sand and gravel, water- - -	11	92
Red rock- - - - -	11	103
Sand and gravel- - - - -	17	120
Red rock- - - - -	9	129
Sand and gravel- - - - -	7	136
Red rock- - - - -	9	145
Sandstone- - - - -	5	150
Red bed- - - - -	3	153

Driller's log of well 17a

2 miles south of Big Spring.		
	Thickness (feet)	Depth (feet)
Surface soil- - - - -	10	10
Sandstone- - - - -	25	35
White sand- - - - -	15	50
Red rock- - - - -	11	61
Sand and gravel, water - -	12	73
Red rock- - - - -	8	81
Sandstone - - - - -	6	87
Sand and gravel, good supply of water- - - - -	19	106
Sandstone- - - - -	6	112
Red rock- - - - -	7	119
Sand and gravel- - - - -	9	128
Sandstone- - - - -	3	131
Red bed- - - - -	3	134

Driller's log of well 34a

2 1/2 miles southeast of Big Spring.		
	Thickness	Depth
Top soil- - - - -	1	1
White soil- - - - -	5	6
Hard rock- - - - -	5	11
Gray lime- - - - -	4	15
Bluish yellow limestone- - -	4	19
Gray limestone- - - - -	6	25
Blue gray limestone- - - - -	6	31
Yellow clay- - - - -	4	35
Gray clay- - - - -	5	40
Clay- - - - -	5	45
White limestone - - - - -	20	65
Yellow limestone- - - - -	5	70
White limestone- - - - -	5	75
Gray limestone- - - - -	14	89
Hard blue limestone - - - -	35	124
Yellow limestone- - - - -	8	132
Yellow limestone and clay -	13	145
Clay- - - - -	3	148
Sand- - - - -	17	165
Yellow sand and clay- - - -	5	170
Pink clay- - - - -	5	175
Yellow sand and clay- - - -	10	185
Water sand- - - - -	30	215
Pink sand- - - - -	20	235
Red bed- - - - -	22 1/2	257 1/2

Driller's log of well 40a

2 3/4 miles southeast of Big Spring.		
	Thickness	Depth
Surface- - - - -	9	9
Caliche- - - - -	2	11
Hard white limestone and chert- - - - -	15	26
Fine yellow limestone- - - -	11	37
Hard white limestone- - - -	18	55
Coarse white limestone- - -	15	70
Broken white limestone- - -	40	110
Hard gray limestone- - - -	37	147

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 40a--Continued

	Thickness (feet)	Depth (feet)
Yellow limestone- - - - -	8	155
Very fine sand- - - - -	21	176
Medium sand- - - - -	8	184
Coarse sand and small gravel	53	237
Sand and gravel- - - - -	18	255
Basal water bearing gravel- -	5	260

Driller's log of well 40b

3 1/4 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil- - - - -	2	2
Gray lime- - - - -	1	3
Yellow broken limestone- - -	7	10
Yellow clay- - - - -	8	18
Yellow broken limestone- - -	12	30
Yellow clay- - - - -	3	33
Yellow limestone- - - - -	5	38
Yellow clay- - - - -	8	46
Yellow limestone- - - - -	5	51
Hard, white sandy limestone- -	3	54
Yellow sand rock- - - - -	9	63
Dry, white sand - - - - -	8	71
Hard sand rock- - - - -	11	82
Yellow sand- - - - -	19	101
Yellow sand rock- - - - -	9	110
Water sand and gravel- - - -	23	133
Yellow sand rock- - - - -	8	141
Compact sand- - - - -	3	144
Water gravel- - - - -	8	152
Mixed clay- - - - -	3	155
Red bed- - - - -	17	172

Driller's log of well 50

4 3/4 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil- - - - -	2	2
Boulders- - - - -	3	5
Gray lime- - - - -	6	11
Yellow lime- - - - -	11	22
Gray lime- - - - -	24	46
Yellow lime- - - - -	7	53
Yellow clay- - - - -	2	55
Yellow lime- - - - -	13	68
Gray lime- - - - -	4	72
Blue lime- - - - -	4	76
Blue shale- - - - -	2	78
Yellow lime- - - - -	2	80
Blue lime- - - - -	26	106
Yellow lime, water in crevice	4	110
Yellow lime- - - - -	6	116
Water sand- - - - -	49	165
Red beds- - - - -	21	186
Packed sand- - - - -	19	205
Water sand and gravel- - - -	10	215
Red beds- - - - -	5	220

Driller's log of well 51

4 3/4 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil- - - - -	2	2
Boulders- - - - -	4	6
Gray lime- - - - -	15	21
Yellow lime- - - - -	24	45
Blue lime- - - - -	11	56
Gray lime- - - - -	20	76
Yellow lime- - - - -	19	95
Gray lime- - - - -	25	120
Blue lime- - - - -	38	158
Yellow sandy lime- - - - -	7	165
Sand and water- - - - -	40	205
Compact sand- - - - -	25	230
Yellow sand, water- - - - -	30	260
Water gravel- - - - -	10	260
Red bed- - - - -	5	265

Driller's log of well 52

4 3/4 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil- - - - -	2	2
Gray lime- - - - -	1	3
Yellow broken lime- - - - -	7	10
Yellow clay- - - - -	8	18
Yellow broken lime- - - - -	12	30
Yellow clay- - - - -	3	33
Yellow lime- - - - -	5	38
Yellow clay- - - - -	8	46
Yellow lime- - - - -	5	51
Hard white sandy lime - - - -	3	54
Yellow sand rock- - - - -	9	63
White sand, dry- - - - -	8	71
Hard sand rock- - - - -	11	82
Yellow sand- - - - -	19	101
Yellow sand rock- - - - -	9	110
Sand and gravel, water- - - -	23	133
Yellow sand rock- - - - -	8	141
Compact sand- - - - -	3	144
Water gravels- - - - -	8	152
Mixed clay- - - - -	3	155
Red bed- - - - -	17	172

Driller's log of well 53

4 3/4 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil- - - - -	3	3
Boulders- - - - -	4	7
Yellow lime- - - - -	3	10
Gray lime- - - - -	12	22
Yellow lime- - - - -	9	31
Gray lime- - - - -	11	42
Yellow lime- - - - -	18	60
Gray sandy lime- - - - -	6	66
Yellow lime- - - - -	10	76
Gray lime- - - - -	15	91
Blue lime- - - - -	3	94
Yellow lime- - - - -	8	102

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 53--Continued

	Thickness (feet)	Depth (feet)
Gray lime-	6	108
Blue lime-	4	112
Blue shale-	4	116
Blue lime-	23	139
Yellow sand and lime-	16	155
Yellow sand and rock-	8	163
Gravel and sand, water-	12	175
Packed sand-	15	190
Gravel and sand, water-	4	194
Compact sand-	46	240
Gravel and sand, water-	14	254
Yellow clay-	5	259
Red bed-	3	262

Driller's log of well 53a

4 $\frac{3}{4}$ miles southeast of Big Spring.

Soil-	3	3
Yellow clay-	35	38
Blue shale-	12	50
Yellow lime-	8	58
White lime-	54	112
Yellow lime, crevice formation, would produce 80 gallons a minute-	47	159
Water sand-	7	166
Yellow lime-	17	183
Lime-	10	193
Sandy lime-	4	197
Yellow sand-	9	206
Quick running sand, water-	28	234
Packed sand-	19	253
Hard sand rock-	11	264
Sand and streaks of clay or soapstone-	26	290
Coarse sand and gravel-	10	300
Red bed, clay-	16	316
Set 236 feet of 12 $\frac{1}{8}$ inch casing, perforated between 176 and 216 feet; and 10 inch casing to 316 feet, per- forated between 280-300 feet with 4 feet lap up into 12 $\frac{1}{8}$ inch.		

Driller's log of well 55

5 miles southeast of Big Spring.

Soil-	15	15
Yellow and blue clay-	40	55
Gray lime-	13	68
Yellow lime-	12	80
Blue lime-	12	92
Gray lime-	9	101
Blue lime-	19	120
Gray lime-	8	128
Gravel and water-	1	129
Gray lime-	7	136
Blue shale-	4	140

Driller's log of well 55--Continued

	Thickness (feet)	Depth (feet)
Broken yellow lime-	7	147
Blue lime-	5	152
Yellow clay-	3	155
Yellow lime-	5	160
Yellow clay-	4	164
Yellow lime-	4	168
Blue lime-	16	184
Sandy lime rock-	4	188
Yellow rock, gravel-	7	195
White sand and water-	25	220
Red rock, sand-	5	225
Yellow sand rock-	15	240
Yellow sand and gravel-	15	255
Red rock sand-	8	263
Yellow sand-	34	297
Water gravel-	2	299
Red bed-	4	303

Driller's log of well 59b

5 miles southeast of Big Spring.

Soil-	6	6
Yellow lime-	32	38
Blue shale-	12	50
Yellow lime-	8	58
White lime-	54	112
Yellow lime-	47	159
Crevice and sand with 60 bailers of water per hour-	7	166
Yellow lime-	17	183
Lime-	10	193
Sandy lime-	4	197
Yellow sand-	9	206
Water, quicksand-	28	234
Packed sand-	19	253
Sand rock-	11	264
Sand and streaks of clay or soapstone-	26	290
Sand and gravel-	10	300
Red bed-	12	312

Driller's log of well 59c

5 miles southeast of Big Spring.

Soil and rock-	15	15
Yellow and blue clay-	35	50
Hard rock-	2	52
White lime-	22	74
Yellow lime-	8	82
Yellow clay-	2	84
Blue lime-	13	97
Gray lime-	43	140
Yellow lime, sand and water crevice-	10	150
Light yellow lime-	12	162
Yellow clay-	3	165
Yellow lime-	13	178
Blue lime-	16	194

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 59c--Continued

	Thickness (feet)	Depth (feet)
Gray lime-	11	205
Yellow sand rock-	4	209
Quicksand-	5	214
Gray sand rock-	24	238
Hard sand-	12	250
Running sand-	5	255
Gravel and sand-	5	260
Running sand-	7	267
Hard sand rock-	5	272
Sand and gravel-	9	281
Red bed-	1	282

Driller's log of well 60

5 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil-	9	9
Gray lime-	13	22
Yellow lime-	5	27
Gray lime-	32	59
Yellow lime-	23	82
Gray lime-	8	90
Yellow lime-	20	110
Walnut clay-	6	116
Yellow lime-	3	119
Blue lime-	30	149
Gray lime-	7	156
Yellow sand rock-	14	170
Sand and gravel, water-	60	230
Compact sand-	6	236
Water sand-	7	243
Water gravel-	9	252
Yellow clay-	6	258
Red bed-	17	275

Driller's log of well 61

5 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
White lime and boulders	6	6
Yellow lime-	45	51
Gray lime-	6	57
Yellow lime-	18	75
Walnut colored clay	6	81
Yellow lime-	9	90
Gray lime-	14	104
Blue lime-	28	132
Yellow lime and sand-	14	146
Yellow sand rock-	13	159
Gravel water-	17	176
Compact sand-	13	189
Water sand-	26	215
Compact sand-	11	226
Gravel, water	15	241
Red bed-	3	244

Driller's log of well 62

4 3/4 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil-	2	2
Boulders-	2	4
Gray lime-	14	18
Yellow lime-	48	66
Gray lime-	4	70
Blue lime-	4	74
Yellow lime-	24	98
Gray lime-	3	101
Hard sand rock-	5	106
Yellow sand rock-	10	116
Compact sand rock-	4	120
Yellow sand rock-	18	138
Water gravel-	3	141
Compact sand-	11	152
Water sand-	23	175
Red compact sand-	17	192
Water gravel and sand-	10	202
Yellow clay-	4	206
Red bed-	3	209

Driller's log of well 64

5 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil and boulders-	10	10
Yellow lime-	7	17
Gray sandy lime-	8	25
Gray lime-	10	35
Hard yellow lime	7	42
Blue lime-	12	54
Gray lime-	14	68
Soft yellow lime	10	78
Gray lime-	2	80
Levity, water-	1	81
Gray lime-	17	98
Yellow lime-	12	110
Blue lime-	42	152
Yellow lime-	4	156
Sand rock-	6	162
Water gravel-	10	172
Water sand-	22	194
Red sand rock-	8	202
Red packed sand-	8	210
Yellow sand-	28	238
Red and blue packed sand	10	248
Yellow sand-	8	256
Water gravel-	7	263
Yellow clay-	2	265
Red clay-	2	267

Driller's log of well 67

5 miles southeast of Big Spring.		
	Thickness (feet)	Depth (feet)
Soil and boulders-	3	3
Yellow broken limestone-	48	51
Yellow clay-	7	58
Gray limestone-	1	59

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 67--Continued

	Thickness (feet)	Depth (feet)
Yellow clay-	4	63
Yellow limestone-	2	65
Yellow clay-	10	75
Yellow limestone-	4	79
Yellow clay-	2	81
Hard sand rock-	4	85
Yellow sand rock-	3	88
Dry yellow sand-	16	104
Sand rock-	7	111
Compact sand-	6	117
Yellow sand rock-	5	122
Yellow sand-	6	128
Water sand-	25	153
Compact sand-	6	159
Water sand and gravel-	14	173
Red beds-	25	198

Driller's log of well 68

4 $\frac{3}{4}$ miles southeast of Big Spring.

Soil-	6	6
Yellow limestone-	10	16
Yellow sand-	9	25
Gray sand rock-	11	36
Light yellow sand and rock-	6	42
White sand rock-	16	58
White sand, water-	4	62
Compact sand-	28	90
Water gravel-	15	105
White clay-	5	110
Red bed-	5	115

Driller's log of well 69

4 $\frac{3}{4}$ miles southeast of Big Spring.

Soil-	6	6
Boulders-	4	10
Gravel and clay-	42	52
Sand and rock-	4	56
Water gravel-	12	68
White sand-	24	92
Red compact sand-	24	116
Sand rock-	6	122
Red compact sand-	3	125
Water gravel-	7	132
Red bed-	35	167
Compact sand-	15	182
Red bed-	5	187

Driller's log of well 70

4 $\frac{3}{4}$ miles southeast of Big Spring.

Soil-	6	6
Yellow lime-	10	16
Yellow sand-	9	25
Gray sand rock-	11	36
Light yellow sand rock-	6	42

Driller's log of well 70--Continued

	Thickness (feet)	Depth (feet)
White sand rock-	16	58
White sand, water-	4	62
Compact sand-	28	90
Water gravel-	15	105
White clay-	5	110
Red bed-	5	115

Driller's log of well 71

5 miles southeast of Big Spring.

Soil-	5	5
Shell rock-	13	13
Yellow lime-	20	33
Yellow sand and lime-	6	44
Yellow sand-	8	52
Gray sand-	16	68
Red clay-	4	72
Water sand-	3	75
Yellow sand and clay-	45	120
Water sand and gravel-	15	135
Yellow sand-	3	138
Gravel bed-	12	150
Red bed-	2	152

Driller's log of well 72

5 $\frac{1}{4}$ miles southeast of Big Spring.

Soil-	4	4
Shell rock-	12	16
Yellow lime-	42	58
Yellow sand-	7	65
Clay-	15	80
Yellow sand rock-	15	95
Pink sand rock-	5	100
Yellow sand rock-	25	125
Water sand-	20	145
Sand-	10	155
Yellow sand-	6	161
Mixed sand and gravel-	14	175
Red bed-	15	190

Driller's log of well 73

5 $\frac{1}{4}$ miles southeast of Big Spring.

Soil-	12	12
Gravel and yellow clay-	42	54
Gravel and seep water-	2	56
Red bed-	34	90

Driller's log of well 314a

9 $\frac{1}{2}$ miles southeast of Big Spring.

Cellar-	10	10
Pink sandy rock-	45	55
Red rock-	45	100
Red beds-	145	245
Red rock-	185	430
Brown shale-	40	470

(Continued on next page)

Table of Driller's Logs, Howard County--Continued

Driller's log of well 514a--Continued	
Thickness (feet)	Depth (feet)
Red rock- - - - -	50
Sand- - - - -	20
Red rock- - - - -	95
Sandy red rock- - - - -	10
Gray water, sand - - - - -	17
Sand- - - - -	153
Sandy red rock- - - - -	5
Hard sand- - - - -	5
Red beds- - - - -	15
Red mud- - - - -	10
Red beds- - - - -	70
Sandy red rock- - - - -	175
Shell and sand- - - - -	20
Red rock and shells- - - - -	60
Anhydrite- - - - -	15
Salt- - - - -	90
Salt and anhydrite layers- - - - -	70
TOTAL DEPTH- - - - -	3835

Driller's log of well 548a--Continued	
Thickness (feet)	Depth (feet)
Hard sand- - - - -	4
Hard lime and sand rock- - - - -	19
Red shale and sand rock- - - - -	21
Blue lime and sand rock- - - - -	12
Sand rock- - - - -	23
Red clay and gravel- - - - -	5
Lime and hard sand - - - - -	3
Red clay and gravel- - - - -	5
Lime rock- - - - -	10
Hard sand- - - - -	5
Hard sand and red shale- - - - -	6
Gumbo and boulders- - - - -	6
Red shale and hard sand- - - - -	21
Hard sand, red and blue shale- - - - -	20
Soft shale- - - - -	5
Red shale and sand- - - - -	16
Hard sand- - - - -	13
Hard shale and sand- - - - -	10
Hard sand- - - - -	7
Red shale- - - - -	7
Hard sand, shale, and boulders - - - - -	6
Sand rock- - - - -	4
Hard sand and red shale- - - - -	12
Sand rock- - - - -	2
Hard sand and boulders- - - - -	5
Hard sand, red shale, and boulders- - - - -	5
Hard sand and boulders - - - - -	3
Sand rock- - - - -	3
Lime rock- - - - -	9
Hard sand, shale, and boulders- - - - -	14
Hard sand- - - - -	9
Hard rock- - - - -	13
Hard sand and boulders- - - - -	6
Gumbo- - - - -	5
Hard sand and shale- - - - -	9
Hard sand and boulders- - - - -	5
Sand rock- - - - -	2
Hard sand and boulders- - - - -	14
Hard sand- - - - -	37
Chalk rock- - - - -	1
Hard blue lime and sand- - - - -	6
Hard sand and boulders- - - - -	22
Hard sand rock- - - - -	2
Gypsum and blue sand rock- - - - -	3
Sand, shale, and boulders- - - - -	24
Lime and sand rock- - - - -	6
Shale and sand- - - - -	20
Hard sand showing salt water - - - - -	5
Lime and sand rock- - - - -	3
Shale and hard sand- - - - -	11
Gypsum rock- - - - -	1
Lime and red flint rock- - - - -	3
Shale and sand- - - - -	13

Driller's log of well 548a	
Thickness (feet)	Depth (feet)
10 miles southwest of Big Spring.	
White alkali formation- - - - -	43
Water sand- - - - -	18
White and red shale- - - - -	63
Gypsum, rock, gravel and red clay- - - - -	20
Red clay and boulders- - - - -	61
Red shale- - - - -	15
Red clay- - - - -	40
Red clay and shale- - - - -	65
Red clay- - - - -	45
Rock- - - - -	4
Red clay and boulders - - - - -	46
Red gumbo- - - - -	24
Red shale- - - - -	6
Red gumbo- - - - -	8
Red and blue gumbo- - - - -	22
Soft red shale- - - - -	40
Red and blue rock showing gas- - - - -	12
Shale and gumbo- - - - -	33
Soft, white lime and red shale- - - - -	25
Red gumbo- - - - -	7
Lime rock- - - - -	3
Red gumbo- - - - -	12
Lime rock and red shale- - - - -	42
Hard white sand rock- - - - -	7
Gumbo, boulders, and shale- - - - -	6
Sand rock- - - - -	2
Gumbo, boulders, and shale - - - - -	2
Sand rock- - - - -	14
Gumbo and boulders - - - - -	5
Sand, rock, and boulders - - - - -	5
Hard sand- - - - -	18
Red shale and boulders- - - - -	17
Soft shale and sand- - - - -	6

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 548a--Continued

	Thickness (feet)	Depth (feet)
Sand and boulders-	2	1244
Hard lime-	2	1246
Hard sand and boulders-	10	1256
Shale and sand and boulders-	6	1262
Soft shale and boulders-	3	1265
Hard shale and boulders-	10	1275
Gypsum rock and lime-	1	1276
Shale and boulders-	12	1288
Sand rock-	3	1291
Hard sand-	4	1295
Hard sand and boulders-	5	1300
Shale and boulders-	6	1306
Shale, sand, and boulders-	49	1355
Flint rock and gravel-	2	1357
Shale and boulders-	64	1421
Hard sand-	5	1426
Shale, sand, and boulders-	44	1470
Hard sand rock-	2	1472
Shale and boulders-	13	1485
Shale, sand, and boulders-	10	1495
Sand and boulders-	11	1506
Shale, sand, and boulders-	22	1528
Flint rock showing gas-	1	1529
Sand rock-	2	1531
Hard sand and boulders-	8	1539
Hard shale and boulders-	14	1553
Hard red granite rock-	2	1555
Hard sand rock-	2	1557
Red shale and boulders-	36	1593
Gypsum rock-	2	1595
Red shale and boulders-	19	1614
Hard sand rock-	6	1620
Hard lime rock and pyrite iron-	5	1625
Hard shale and boulders-	12	1637
Packed sand-	6	1643
Hard shale and boulders-	6	1649
Sand rock-	2	1651
Lime rock-	7	1658
Hard shale and boulders-	20	1678
Rock salt-	12	1690
Shale and boulders-	11	1701
Soft shale-	18	1719
Hard sand-	17	1736
Red shale-	10	1746
Lime rock-	6	1752
Red shale and boulders	20	1772

Driller's log of well 552a

13 $\frac{1}{4}$ miles southwest of Big Spring.		
Sandstone and anhydrite-	30	30
Red bed-	25	55
Gravel and sand-	10	65
Sandy lime-	15	80
Red bed, 5 bailers water per hour-	130	210

Driller's log of well 552a--Continued

	Thickness (feet)	Depth (feet)
Red bed, 2 bailers water per hour-	385	595
Red bed, hole full of water	90	685
White sand-	20	705
Sand-	5	710
Red bed-	5	715
Sand-	15	730
Sandy lime-	15	745
Water sand-	5	750
Red bed-	35	785
Water sand-	15	800
Red bed-	5	805
Water sand-	25	830
Red rock-	50	880
Sandy red rock-	10	890
Water sand, hole full of water-	15	905
Red bed-	25	930
Red rock-	90	1020
Red bed-	195	1215
Sandy lime-	5	1220
Red bed, caving-	35	1255
Water sand, hole full of water-	10	1265
Red rock-	20	1285
Salt-	55	1340
Broken sandy lime-	30	1370
Sandy lime, hole full of water-	5	1375
Red rock-	5	1380
TOTAL DEPTH-		3515

Driller's log of well 569a

6 $\frac{3}{4}$ miles southwest of Big Spring.		
White chalk-	60	60
Red rock-	570	630
Water sand-	30	660
Red rock-	10	670
Water sand-	100	770
Red rock-	10	780
Water sand, hole full of water	20	790
Red rock-	60	850
Red mud-	95	945
Red rock-	5	950
Red mud-	35	985
Red rock-	110	1095
Shells and sand-	15	1110
Red rock-	36	1146
Salt and streaks of red rock	54	1200
Salt-	340	1540
Sand-	33	1573
Salt-	72	1645
Red rock-	35	1680
Lime-	45	1725
Anhydrite and shale	15	1740

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 569a--Continued
 Thickness Depth
 (feet) (feet)
Water sand, hole full water 35 | 1775
TOTAL DEPTH- - - - - | 3230
CASING RECORD: 657 feet of 15 inch casing, 965 feet of 12 inch casing, 3010 feet of 8 inch casing.

Driller's log of well 596a
 3 $\frac{1}{2}$ miles southwest of Big Spring.
 Red shale- - - - - 45 | 45
 Red rock- - - - - 30 | 75
 Shale- - - - - 25 | 100
 Sandy shale- - - - - 25 | 125
 4 bailers of water per hour at 100 feet |
 30 bailers of water per hour at 135 feet |
 Sand- - - - - 15 | 140
 Red bed- - - - - 35 | 175
 Red rock- - - - - 10 | 185
 Muddy red bed- - - - - 55 | 240
 Hard gray sand- - - - - 30 | 270
 Water sand- - - - - 10 | 280
 Dark red bed- - - - - 5 | 285
 Red rock- - - - - 80 | 365
 Sand, water- - - - - 10 | 375
 Sandy lime- - - - - 10 | 385
 Red bed- - - - - 15 | 400
 Red rock- - - - - 5 | 405
 Hard dry sand- - - - - 7 | 412
 Gritty red shale- - - - - 8 | 420
 Red bed- - - - - 45 | 465
 Red shale- - - - - 50 | 515
 Red rock- - - - - 70 | 585
 Lime shell- - - - - 7 | 592
 Red bed- - - - - 13 | 605
 Red rock- - - - - 75 | 680
 Red bed- - - - - 10 | 690
 Lime shell- - - - - 8 | 698
 Blue shale- - - - - 7 | 705
 Lime shell- - - - - 5 | 710
 Blue shale - - - - - 20 | 730
 Limestone- - - - - 15 | 745
 Blue slate- - - - - 10 | 755
 Red shale- - - - - 15 | 770
 Red and blue shale- - - - - 45 | 815
 Limestone- - - - - 3 | 818
 Red rock- - - - - 152 | 970
 Red bed- - - - - 25 | 995
 Sand- - - - - 60 | 1055
 8 bailers of water an hour at 1020 feet |
 Red rock- - - - - 10 | 1065
 Sand- - - - - 11 | 1076
 Limestone- - - - - 4 | 1080
 Red shale- - - - - 10 | 1090
 Sand- - - - - 25 | 1115
 Hole full of water.
 Hard sand- - - - - 5 | 1120
 Shale- - - - - 5 | 1125

Driller's log of well 596a--Continued
 Thickness Depth
 (feet) (feet)
 Red rock- - - - - 55 | 1180
 Sand- - - - - 110 | 1290
 Red shale- - - - - 34 | 1324
 Salt and red shale- - - - - 51 | 1375
 Red shale- - - - - 30 | 1405
 Red shale and salt- - - - - 25 | 1430
 Hard limestone- - - - - 10 | 1440
 Salt and shells- - - - - 45 | 1485
 Gypsum, anhydrite, and shells 35 | 1520
 Red rock- - - - - 5 | 1525
 Red shale- - - - - 20 | 1545
 Gypsum, anhydrite, and shells 10 | 1555
 Red shale and some salt - - - 10 | 1565
 Red shale and shells- - - - 15 | 1580
 Red rock and gypsum- - - - 17 | 1597
 Red shale- - - - - 28 | 1625
 Red rock- - - - - 30 | 1655
 Anhydrite- - - - - 10 | 1665
 Blue shale- - - - - 3 | 1668
 Red rock and shale- - - - 24 | 1692
 Red shale- - - - - 28 | 1720
 Anhydrite and shells- - - - 30 | 1750
 Sand- - - - - 10 | 1760
 4 bailers of water an hour.
 Red rock and break- - - - 5 | 1765
 Sand- - - - - 35 | 1800
 Water, hole filled 200 feet in 1 hour.
 Red shale- - - - - 20 | 1820
 Anhydrite- - - - - 5 | 1825
 Red shale- - - - - 5 | 1830
 Red rock- - - - - 10 | 1840
 Red shale- - - - - 7 | 1847
 Anhydrite- - - - - 18 | 1865
 Red shale- - - - - 35 | 1900
 Anhydrite, gypsum and salt- 40 | 1940
 Anhydrite, shells, and red rock- - - - - 75 | 2015
 Anhydrite- - - - - 50 | 2065
 Red shale- - - - - 15 | 2080
 Anhydrite, some salt, and gypsum- - - - - 70 | 2150
 Red shale, anhydrite, sandy rock, and shale- - - - - 80 | 2230
 Shells- - - - - 75 | 2305
 Red shale- - - - - 10 | 2315
 Hard anhydrite - - - - - 15 | 2330
 Red sandy shale- - - - - 30 | 2360
 Anhydrite and shells- - - - 65 | 2425
 Anhydrite- - - - - 20 | 2445
 Red sandy shale and shells- 25 | 2470
 Fine red sand- - - - - 40 | 2510
 Anhydrite- - - - - 10 | 2520
 Anhydrite and shale- - - - 45 | 2565
 Hard anhydrite- - - - - 35 | 2600
TOTAL DEPTH- - - - - | 4400
CASING RECORD: 180 feet of 20 inch casing, 405 feet of 15 $\frac{1}{2}$ inch casing, 1163 feet of of 12 $\frac{1}{2}$ inch casing, 1842 feet of 10 inch casing, 3712 feet of 8 $\frac{1}{4}$ inch casing, 4113 feet of 6-5/8 inch casing.

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 599a
5 $\frac{3}{4}$ miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Clay and gypsum- - - - -	38	38
Yellow sand- - - - -	12	50
White sand- - - - -	5	55
White sand, 30 barrels of water per 24 hours - - - -	5	60
Brown sand- - - - -	6	66
White water sand, 150 barrels of water per 24 hours- - -	4	70
Red bed- - - - -	859	929
Red sand, 212 barrels of salt water per 24 hours- -	13	942
Red bed- - - - -	373	1315
Brown shale- - - - -	40	1355
Red bed- - - - -	101	1456
Sand, 18 barrels of salt water per 24 hours- - - -	4	1460
Sandy red bed- - - - -	30	1490
Red bed- - - - -	40	1530
Red sand- - - - -	8	1538
Red sand, showing slight trace of oil- - - - -	10	1548
Red bed- - - - -	4	1552
Brown sand- - - - -	12	1564
Red bed- - - - -	356	1920
Anhydrite- - - - -	85	2005
Anhydrite, 160 barrels of salt water per 24 hours- -	15	2020
Gray water sand, hole full of salt water- - - - -	14	2034
Red sand and shale- - - - -	11	2045
Red sand- - - - -	7	2052
Red and blue shale- - - - -	3	2055
Red shale- - - - -	10	2065
Red bed- - - - -	40	2105
Anhydrite- - - - -	10	2115
Red bed and anhydrite- - -	15	2130
Anhydrite- - - - -	10	2140
TOTAL DEPTH- - - - -		3933

Driller's log of well 602a
8 $\frac{3}{4}$ miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Surface formation- - - - -	30	30
Sand and gravel- - - - -	5	35
Red rock- - - - -	290	325
Brown sandy shale- - - - -	40	365
Hard shale- - - - -	15	380
Brown shale- - - - -	95	475
Red rock- - - - -	25	500
Red shale- - - - -	50	550
TOTAL DEPTH- - - - -		3270

CASING RECORD: 85 feet of 15 $\frac{1}{2}$ inch casing. 480 feet of 12 $\frac{1}{2}$ inch casing. 1240 feet of 10 inch casing. 1560 feet of 5-3/16 inch casing.

Driller's log of well 605a
4 $\frac{1}{4}$ miles southwest of Big Spring.

	Thickness (feet)	Depth (feet)
Sand and shells- - - - -	140	140
Red rock- - - - -	180	320
Sand- - - - -	30	340
Blue shale- - - - -	10	350
Brown shale- - - - -	20	370
Blue shale- - - - -	30	400
Red shale- - - - -	15	415
$\frac{1}{2}$ bailer of water per hour	325	340 feet.
Shale- - - - -	85	500
Red rock and limestone - - -	55	555
Red shale- - - - -	30	585
Limestone and shale- - - -	15	600
Water 590-595 feet.		
Sandy limestone- - - - -	15	615
Red rock- - - - -	10	625
Sand- - - - -	20	645
Shale- - - - -	5	650
Sandy limestone- - - - -	10	660
Red shale- - - - -	5	665
Sand- - - - -	25	690
Water sand- - - - -	10	700
Shale, sand, and gypsum - - -	14	714
Hole full of water 714-730 feet.		
Sand- - - - -	46	760
Red shale and gypsum- - - -	10	770
Rock- - - - -	145	915
Rock and limestone- - - - -	15	930
rock- - - - -	50	980
Sandy rock- - - - -	60	1040
Rock- - - - -	98	1138
Limestone- - - - -	12	1150
Anhydrite- - - - -	10	1160
Salt- - - - -	5	1165
TOTAL DEPTH- - - - -		3504

CASING RECORD: 787 feet of 10 inch casing. 1763 feet of 8 $\frac{1}{4}$ inch casing.

Driller's log of well 616a
8 $\frac{3}{4}$ miles south of Big Spring.

	Thickness (feet)	Depth (feet)
Surface- - - - -	12	12
Lime- - - - -	28	40
Shale - - - - -	10	50
Broken lime- - - - -	15	65
Lime- - - - -	20	85
Sand, 6 bailers of water per hour- - - - -	75	160
Red shale- - - - -	20	180
Red rock- - - - -	50	230
Red shale and red bed- - - -	260	490
Blue mud- - - - -	35	525
Red bed- - - - -	100	625
Water sand- - - - -	15	640

5 bailers of water per hour.

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 616a--Continued

Thickness Depth
(feet) (feet)

Red rock-	225	865
Sand-	15	880
Red rock-	90	970
Blue shale-	5	975
Red rock-	10	985
Lime shell-	5	990
Red rock-	95	1085
Lime shells-	35	1120
Red rock and lime-	55	1175
Shell-	10	1185
Sand-	25	1210
Red rock-	50	1260
Red rock and blue shale	15	1275
Red rock-	55	1330
Blue shale-	20	1350
Red rock-	205	1855
Soft gray sand-	20	1575
Soft shale and gray sand-	28	1603
Hard sandy shale-	6	1609
Red shale-	161	1770
Sandy, salty, red shale-	20	1790
Shells-	10	1800
Red shale-	105	1905
Gypsum-	10	1915
Red shale	90	2005
Gypsum-	30	2035
Red shale-	190	2225
Water sand	5	2230
2 bailers of water per hour.		
Red shale-	350	2580
TOTAL DEPTH-		3850

Driller's log of well 620a

1 1/4 miles southeast of Big Spring.

Soil-	3	3
Caliche-	9	12
Lime-	38	50
Shale-	10	60
Sand-	68	128
Water sand-	27	155
Red bed-	310	465
Lime and red rock-	187	652
Shale-	113	765
Sand-	27	792
Lime and shale-	138	930
Sandy lime-	35	965
Lime and shale-	100	1065
Anhydrite-	15	1080
Lime and anhydrite-	118	1198
Red rock and anhydrite-	9	1207
Anhydrite and lime-	2	1209
Gray lime-	2	1211
Anhydrite-	3	1214
Oil sand-	13	1227
TOTAL DEPTH		1227

CASING RECORD: 157 feet of 10 inch casing.
1215 feet of 7 inch casing.

Driller's log of well 635a

1 1/2 miles southeast of Big Spring.

Thickness Depth
(feet) (feet)

Soil-	12	12
Yellow lime-	23	35
Gray lime-	70	105
Blue lime-	20	125
Brown lime-	35	160
Soft sand-	20	180
Red rock-	5	185
Brown sand-	10	195
Red sand-	35	230
White sand-	10	240
Red rock-	175	415
Gray shale-	20	435
Red rock-	380	815
Red sand-	15	830
Hole full of water 825 feet.		
Red rock-	30	860
Red lime-	10	870
Gray lime-	160	1030
Red rock-	5	1035
Gray shale-	15	1050
Red shale-	35	1085
Red bed-	185	1270
Blue shale-	25	1295
Red bed-	435	1730
Red sandy shale-	67	1797
Gray lime-	14	1811
Red shale-	9	1820
Shale and lime shells-	4	1824
Light lime-	21	1845
Red sand, hole full water	25	1870
Red rock-	55	1925
Gray sand-	5	1930
Gray lime-	12	1942
Red sandy shale-	5	1947
Red rock-	128	2075
Red sandy shale-	65	2140
Gravel-	17	2157
Red sandy shale-	8	2165
Red sand, water-	145	2310
Water from 2165 feet to 2310 feet.		
Red rock-	15	2325
Lime-	10	2335
Red rock-	15	2350
Lime-	25	2375
Red shale-	45	2420
Anhydrite-	50	2470
Gray lime-	60	2530
Lime shells-	25	2555
White lime-	20	2575
Gray lime-	40	2615
Sandy lime, small showing of oil-	15	2630

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 635a--Continued

	Thickness (feet)	Depth (feet)
Gray lime-	295	2925
Blue lime-	30	2955
Water sand, small amount of water-	15	2970
Blue lime-	10	2980
Dry sand-	20	3000
Blue lime-	15	3015
Gray lime-	50	3065
Brown lime-	125	3190
Gray lime-	165	3355
Blue lime-	65	3420
Gray lime-	40	3460
Brown lime-	40	3500
Gray lime-	45	3545
Water sand-	10	3555
Gray sandy lime-	30	3585
Blue sandy lime-	7	3592
Gray sandy lime-	2	3594
Blue sandy lime-	11	3605
Gray sandy lime-	17	3622
Brown sand-	15	3627
Water at 3623		
Gray sandy lime-	17	3644
Sand, water-	16	3650
Blue sandy lime-	21	3671
Gray sandy lime-	17	3688
Lime-	42	3730
TOTAL DEPTH-		3730

Driller's log of well 637

13½ miles southeast of Big Springs.

Caliche-	10	10
Reddish clay-	55	65
Sandy shale, showing of water	5	70
Red rock-	10	80
Yellow clay, sandy-	40	120
Sand rock-	25	145
2 barrels of water per hour at 120 feet.		
Gravel-	12	157
Brown sand-	13	170
Quicksand-	10	180
Hole filled 80 feet with water, unable to bail down. Estimated good for 400 barrels per day. Average pumped 150 barrels per day.		

Driller's log of well 649a

16¾ miles southeast of Big Spring.

Soft red bed-	365	365
Hard muddy red rock-	35	400
Soft red bed-	50	450
Sand and gravel-	20	470
Red bed-	30	500
Chocolate colored red bed-	20	520
Soft red bed-	105	625
Shale and shell-	20	645

Driller's log of well 649a--Continued

	Thickness (feet)	Depth (feet)
Water sand-	10	655
Sand-	35	690
Brown sand, hole full of salt water-	5	695
Red bed-	120	815
Soft gray sand-	20	835
Red bed-	100	935
Lime-	40	975
Broken lime-	65	1040
Hard lime, shells and red rock-	20	1060
Hard gray lime-	20	1080
Red rock and shells-	20	1100
Gray lime with red rock breaks-	35	1135
White broken lime-	25	1160
Hard white lime-	10	1170
Red rock-	10	1180
Hard white lime-	30	1210
Hard gray lime-	10	1220
Soft red rock-	55	1275
Hard gray lime-	28	1303
Show of oil at 1300 feet.		
Broken sand and red rock-	22	1325
Red rock and lime shells-	25	1350
Lime-	20	1370
Red rock-	10	1380
Brown sand-	15	1395
Red rock-	5	1400
Red sand-	20	1420
Gray lime-	15	1435
Brown lime-	20	1455
Brown sand, hole full of water	5	1460
Lime-	10	1470
Sand and brown salt	10	1480
Black lime-	5	1485
Gray lime-	5	1490
Sand and rock-	10	1500
TOTAL DEPTH-		3202

CASING RECORD: 540 feet of 15½ inch casing. 698 feet of 12½ inch casing. 1420 feet of 10 inch casing. 1920 feet of 8¼ inch casing. 2650 feet of 6-5/8 inch casing.

Driller's log of well 653a

16 miles east of Big Spring.

Red clay-	48	48
Lime-	8	56
Sand-	4	60
Red bed-	255	315
Blue shale-	35	350
Red bed-	110	460
Red rock-	100	560
Gray shale-	15	575

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 653a--Continued

	Thickness (feet)	Depth (feet)
Gray water sand, 1 bailer of water per hour- - - - -	35	610
Gray sand- - - - -	10	620
Red rock- - - - -	125	745
Water sand- - - - -	20	765
Red rock- - - - -	85	850
Blue shale- - - - -	40	890
Water sand- - - - -	45	935
Red rock- - - - -	75	1010
Anhydrite, red shale- - - - -	35	1045
Red rock- - - - -	110	1155
Lime- - - - -	35	1190
Red rock- - - - -	40	1230
Lime- - - - -	15	1245
Red sand- - - - -	5	1250
Red shale, lime shells- - - - -	140	1390
Lime- - - - -	65	1455
Sandy red shale- - - - -	30	1485
Anhydrite, red shale- - - - -	75	1560
Red sand, 3 bailers water per hour- - - - -	25	1585
Lime- - - - -	10	1595
Red sand, shale- - - - -	35	1630
Sand- - - - -	15	1645
Lime- - - - -	10	1655
Water sand, hole full of water- - - - -	20	1675
Sandy lime- - - - -	10	1685
Lime, red sand- - - - -	10	1695
Lime- - - - -	10	1705
Gray sandy shale- - - - -	7	1712
Water sand- - - - -	3	1715
Blue shale- - - - -	10	1725
Red sandy shale- - - - -	15	1740
Red bed, shell- - - - -	13	1753
Lime- - - - -	2	1755
Anhydrite, red shale- - - - -	65	1820
Lime- - - - -	80	1900
Gray lime- - - - -	75	1975
Dark lime- - - - -	95	2070
Brown lime- - - - -	40	2110
Gray lime- - - - -	45	2155
Brown lime- - - - -	20	2175
White lime- - - - -	10	2185
Water 2155 -2175 feet.		
White lime- - - - -	30	2215
Lime- - - - -	35	2250
Brown lime- - - - -	25	2275
Lime- - - - -	70	2345
Gray lime- - - - -	65	2410
Lime- - - - -	20	2430
Gray lime- - - - -	25	2455
Lime- - - - -	25	2480
Dark lime- - - - -	55	2535
Brown lime- - - - -	30	2565
Lime- - - - -	70	2635

Driller's log of well 653a--Continued

	Thickness (feet)	Depth (feet)
White lime- - - - -	55	2690
Brown lime, oil pay - - - - -	19	2709
TOTAL DEPTH- - - - -		2955
CASING RECORD: 617 feet of 12 $\frac{1}{2}$ inch casing. 942 feet of 10 inch casing. 1758 feet of 8 $\frac{1}{2}$ inch casing. 2547 feet of 6-5/8 inch.		

Driller's log of well 656a

9 $\frac{3}{4}$ miles east of Big Spring.

Red mud- - - - -	50	50
Gravel- - - - -	10	60
Red mud- - - - -	348	408
Brown shale- - - - -	17	425
Sand, water- - - - -	17	442
Red bed- - - - -	8	450
Water sand- - - - -	20	470
Blue shale- - - - -	20	490
Red bed, run 12 $\frac{1}{2}$ inch casing- - - - -	125	615
Brown shale- - - - -	10	625
Red bed, run 10 inch casing- - - - -	105	730
Sand, water- - - - -	20	750
Lime- - - - -	27	777
Red bed- - - - -	93	870
Lime- - - - -	8	878
Red bed- - - - -	121	999
Lime - - - - -	6	1005
Red bed- - - - -	30	1035
Lime- - - - -	21	1056
Red bed- - - - -	30	1086
Anhydrite- - - - -	17	1103
Water sand, $\frac{1}{2}$ bailer of water an hour.		
Red bed- - - - -	57	1160
Red rock- - - - -	25	1185
Anhydrite - - - - -	15	1200
Red rock- - - - -	20	1220
Anhydrite- - - - -	15	1235
Red rock- - - - -	20	1255
Salt- - - - -	30	1285

Driller's log of well 682a

6 miles east of Big Spring.

Surface sand- - - - -	115	115
Red sand- - - - -	60	175
Red beds- - - - -	48	223
Red sand- - - - -	20	243
Red beds- - - - -	105	348
Hard sand- - - - -	10	358
Red beds- - - - -	40	398
Dry brown sand- - - - -	5	403
Red beds- - - - -	100	503
Sticky red beds- - - - -	68	571
Hard sand- - - - -	5	576
Red beds- - - - -	15	591
Water sand- - - - -	12	603

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 682a--Continued

	Thickness (feet)	Depth (feet)
Hard sandy shale-	60	663
Hard sand-	46	709
Red beds-	30	739
Shale and red beds-	18	757
Sandy lime-	2	759
Shale and lime shells-	106	865
Lime-	11	876
Hard sandy lime-	2	878
Gypsum-	1	879
Shale and lime shells-	10	889
Hard broken sand-	36	925
Anhydrite-	2	927
Missing-	30	957
Broken lime-	18	975
Sandy lime-	1	976
Hard lime, later called salty	21	997
Lime and red beds-	3	1000
TOTAL DEPTH-		3670

Driller's log of well 689b--Continued

	Thickness (feet)	Depth (feet)
Red beds-	190	455
Red beds, water at 305-	50	505
Sand-	50	555
Red beds and sand-	20	575
Sandy red beds-	13	588
Red beds-	162	750
Red beds and salt-	20	770
Brown shale-	10	780
Red rock-	5	785
Brown lime and shale-	25	810
Red rock-	35	845
Red bed-	80	925
Anhydrite, gypsum and red beds-	10	935
Salt and red beds-	165	1100
Salt and potash-	230	1330
8 bailers sulphur water per hour at 3274-3275.		

Driller's log of well 685a

5 miles east of Big Spring.

Jeller-	15	115
Gravel, some water-	15	30
Gravel and sand, hole full of water-	20	50
Red mud-	20	70
Sand and gravel-	5	75
Red beds-	55	130
Sandstone-	15	145
Sandy blue shale-	10	155
Red beds-	40	195
Gray lime-	5	200
Red beds-	195	395
Water sand, hole full of water-	25	420
Red rock-	30	450
Brown water sand-	15	465
Fine gray and brown sand-	25	490
Red rock-	300	790
Anhydrite-	20	810
Anhydrite and red rock-	40	850
Red rock-	10	860
Anhydrite-	10	870
Salt-	360	1230
TOTAL DEPTH-		3618

Driller's log of well 745a

12 $\frac{1}{4}$ miles northeast of Big Spring.

Red rock-	40	40
Water sand, 2 bailers water per hour-	5	45
Red rock-	80	125
Lime-	10	135
Red rock-	80	215
Brown shale-	25	240
Gray sand-	40	280
White sand, 17 bailers water per hour-	10	290
Anhydrite-	20	310
Lime-	10	320
Red rock-	85	405
Brown shale-	65	470
Red beds-	460	930
Jonglomerate-	35	965
Salt-	280	1245
TOTAL DEPTH-		4007
LOGGING RECORD: 1 joint of 20 inch sur- face casing. 324 feet of 15 $\frac{1}{2}$ inch sur- face casing. 816 feet of 12 $\frac{1}{2}$ inch surface casing. 2149 feet of 10 inch surface casing. 3233 feet of 6-5/8 inch casing.		

Driller's log of well 689b

2 miles northeast of Big Spring.

Sand-	60	60
Red beds-	125	185
Blue shale-	10	195
Sand-	30	225
Red beds-	27	252
Sand-	6	258
Red beds, 1 bailer water per hour 352-358 feet-	7	265

Driller's log of well 832a

3 $\frac{3}{4}$ miles north of Big Spring.

Sand-	85	85
Red beds-	15	100
$\frac{1}{2}$ bailer water per hour.		
Gravel-	5	105
Red bed-	145	250
Red beds and light blue shale	45	295
Red beds-	67	362
Red rock-	23	385

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 822a--Continued

Thickness Depth
(feet) (feet)

Sandy lime-	30	415
Water sand-	10	425
3 bailers water per hour.		
Sandy lime-	15	440
Red rock-	65	505
Red beds and light blue shale	45	550
Sandy lime-	10	560
1½ bailers water per hour.		
Red rock-	15	575
Shelly shale-	25	600
Red beds and lime shell-	5	605
Red rock-	20	625
Red rock and red beds-	55	680
Red sand-	15	695
Gray water sand-	15	710
Hole full of salt water.		
Blue shale-	10	720
Red rock-	10	730
Red beds and light blue shale	20	750
Red rock and blue shale-	25	775
Red beds-	15	790
Red beds and lime shells-	10	800
Red rock-	20	820
Red beds-	20	840
Red rock-	15	855
Red rock and light blue shale	15	870
Red beds-	25	895
Red beds and red rock shells	25	920
Shelly shale-	60	980
Red rock-	20	1000
Red beds-	40	1040
Red rock-	30	1070
Lime-	5	1075
Red bed and gypsum-	40	1115
Red rock-	10	1125
Gypsum-	15	1140
Gypsum red rock and salt-	120	1260
Hole full of sulphur water at 3440.		
TOTAL DEPTH-		3440

Driller's log of well 882a

9½ miles northwest of Big Spring.

Surface soil-	15	15
Clay-	35	50
Shale-	25	75
Sand-	25	100
Shale and boulders-	150	250
Sand-	15	265
Gumbo-	15	280
Shale-	20	300
Gumbo-	40	340
Packed sand-	20	360
Shale-	40	400
Sand rock-	12	412
Shale and boulders-	88	500

Driller's log of well 882a--Continued

Thickness Depth
(feet) (feet)

Packed sand-	15	515
Gumbo-	20	535
Sandy shale-	85	620
Gumbo-	15	635
Shale and boulders-	30	715
Sand-	10	725
Sandy shale-	75	800
Gumbo-	15	815
Sand-	25	840
Sand rock-	10	850
Sandy shale-	50	900
Shale and boulders	50	950
Sand-	15	965
Sand rock-	18	983
Shale and boulders-	17	1000
Sand and rock salt-	7	1007
TOTAL DEPTH-		3390

Driller's log of well 915a

7¼ miles southwest of Big Spring.

White shale-	15	15
Soft, sandy red rock-	15	30
Soft red rock-	15	45
Pink rock-	15	60
Red rock-	15	75
Red beds-	10	85
Hard red bed-	10	95
Red mud or clay-	10	105
Soft, muddy red bed-	45	150
Red bed-	320	470
Red sand-	35	505
Red bed-	10	515
Red rock-	40	555
Red bed-	45	600
Red rock-	50	650
Gray sand	20	670
Sand, water	55	725
Red bed-	10	735
Hard gray sand-	40	775
Red bed-	170	945
Red rock-	40	985
Red bed-	100	1085
Salt-	20	1105

Hole full of sulphur water at 3570.

TOTAL DEPTH- 3750

Driller's log of well 919a

6½ miles west of Big Spring.

Surface sand-	130	130
Gravel, sand-	7	137
Surface sand-	8	145
Sandy red rock-	5	150
Red bed-	80	230
Red rock-	8	238
Red mud-	177	415

(Continued on next page)

Table of Drillers' Logs, Howard County--Continued

Driller's log of well 919a--Continued

	Thickness (feet)	Depth (feet)
Blue mud-	-82	497
Red mud-	-28	525
No record-	-25	550
Red mud-	-35	585
Red rock-	-51	636
Red bed-	-66	702
Water sand-	-45	747
10 bailers of water per hour.		
No record-	5	752
Red bed-	-23	775
Sand-	-39	814
Hole full of water-	-76	790
Sand, gravel-	-32	822
Red bed-	243	1065
Red rock-	27	1092
Brown and gray lime-	39	1131
Red mud-	-31	1162
Brown and gray lime-	8	1170
Red mud-	-36	1206
Brown and gray lime-	9	1215
Salt-	8	1223
Total Depth-		3507

Driller's log of well 923a

4 3/4 miles west of Big Spring.

Surface-	24	24
Brown sand-	6	30
White sand-	66	96
Sand and gravel-	31	127
Red beds-	10	137
Gravel-	5	142
Red rock and shale-	21	163
Red mud-	-147	310
Brown mud-	-38	348
Blue mud-	4	352
Red rock-	12	364
Green rock-	16	380
Limestone-	18	398
Red rock-	29	427
Red mud-	-170	597
Brown mud-	24	621
Gravel beds and sand-	17	638
Red mud-	52	690
Gray mud, hole full of water between 700-728 feet-	34	734
Gray sand-	14	748
Red mud-	22	760
Sand and gravel-	21	781
Red rock-	70	851
Red beds-	49	900
Red rock-	75	975
Red rock and limestone-	50	1025
Red rock-	88	1113
Red rock and limestone-	10	1123
Red rock-	12	1135
Hard limestone-	20	1155
Salt-	185	1340
TOTAL DEPTH-		4208

Driller's log of well 924a

2 1/4 miles northwest of Big Spring.

	Thickness (feet)	Depth (feet)
Sand and red clay-	17	17
Red sand-	73	90
Red rock-	-220	310
Sand-	20	330
Water sufficient to drill.		
Red rock and red bed-	-313	643
Sand-	57	700
Hole full of water 660 feet.		
Red rock and shale-	384	1084
1/8 bailer of water per hour at 795 feet.		
Salt and anhydrite-	406	1490
Sulphur water 3398 feet.		
TOTAL DEPTH-		3398

Driller's log of well 925

3 1/2 miles southeast of Big Spring.

Hard white lime with chert-	22	22
Coarse white lime-	10	32
Fine white limestone-	18	50
Coarse yellow limestone-	15	65
Medium coarse white lime-	10	75
Blue shale and some lime-	25	100
Coarse yellow lime-	30	130
Limestone-	18	148
Sand-	19	167
Pink clay-	5	172
Light colored clay and sand-	21	193
Yellow clay-	4	197
Light pink clay-	13	210
Dark pink clay and sand-	18	228
Red bed-	15	243
TOTAL DEPTH-		243
Static water level after 24 hours 210 feet.		

Driller's log of 926a

3 miles southeast of Big Spring.

Yellow lime-	190	190
Sand and gravel-	78	268
Red beds-	77	345
Red rock-	555	900
Blue shale-	15	915
White sand-	5	920
Red rock-	15	935
White sandy shale-	20	955
Red rock-	170	1125
Red shale-	15	1140
White water sand-	75	1215
White sand-	55	1270
Red shale-	50	1320
Anhydrite-	5	1325
Red shale-	245	1570
Anhydrite-	20	1590
Red shale and shells-	140	1730

(Continued on next page)

Table of Driller's Logs, Howard County--Continued

Driller's log of well 926a--Continued

	Thickness (feet)	Depth (feet)
Anhydrite- - - - -	15	1745
Sandy lime- - - - -	10	1755
Anhydrite- - - - -	100	1855
Red shale- - - - -	35	1890
Water sand- - - - -	30	1920
Red shale- - - - -	15	1935
Anhydrite- - - - -	15	1950
Red shale- - - - -	10	1960
Water sand- - - - -	5	1965
Anhydrite- - - - -	10	1975
Muddy red sand- - - - -	30	2005
Anhydrite- - - - -	10	2015
Salt and anhydrite shells- - - - -	60	2075
TOTAL DEPTH- - - - -		4005

Driller's log of well 929a

6 miles southeast of Big Spring.		
No log- - - - -	570	570
Sand- - - - -	42	612
Brown shale- - - - -	14	626
Lime- - - - -	4	630
Water sand- - - - -	25	655
Red shale- - - - -	13	668
Hard red shale- - - - -	3	671
Light lime- - - - -	13	684
Red sticky shale- - - - -	16	700
Shale- - - - -	45	745
Brown shale- - - - -	98	843
Red shale- - - - -	47	890
Brown shale- - - - -	134	1024
Salt- - - - -	356	1380
TOTAL DEPTH- - - - -		3150

Driller's log of 932a

6 1/4 miles southeast of Big Spring.			
	Thickness (feet)	Depth (feet)	
Soil- - - - -	3	3	
Yellow lime- - - - -	32	35	
Gray lime- - - - -	9	44	
Gray shale- - - - -	15	59	
Blue shale- - - - -	25	84	
Yellow lime- - - - -	30	114	
Yellow sand and water- - - - -	36	150	
Gray sand- - - - -	13	163	
Pink clay- - - - -	4	167	
Gray sand and gravel- - - - -	13	180	
Pink clay- - - - -	9	189	
Sand and gravel- - - - -	15	204	
Gravel with water- - - - -	5	209	
Red bed- - - - -	21	230	

Driller's log of well 935a

8 miles south of Big Spring.			
Soil- - - - -	1	1	
White lime- - - - -	4	5	
Shell rock- - - - -	20	25	
White, hard lime- - - - -	25	50	
Yellow lime- - - - -	29	79	
Blue lime- - - - -	46	125	
Yellow lime and clay- - - - -	10	135	
Gray lime- - - - -	26	161	
Dark pink clay- - - - -	4	165	
Light pink clay- - - - -	26	191	
Pink clay and sand- - - - -	6	197	
Gray backed sand- - - - -	19	216	
Water gravel- - - - -	4	220	
Red clay- - - - -	10	230	
Gravel and water- - - - -	8	238	
Red bed- - - - -	9	247	

Logs of test wells drilled by W. P. A. labor in Howard County, Texas.
 Samples examined and classified by J. Howard Samuel, Project Superintendent.

Well 101

Flat, County road, SW. $\frac{1}{4}$, SW. $\frac{1}{4}$, Sec. 14, T. 1 S., Block 33, $3\frac{3}{4}$ miles southwest of Big Spring.

	Thickness (feet)	Depth (feet)
Sandy surface soil- - - - -	3	3
Limestone and caliche- - - -	3 $\frac{1}{2}$	6 $\frac{1}{2}$
Small stone and clay- - - - -	4	10 $\frac{1}{2}$
Pink clay and gravel- - - - -	10	20 $\frac{1}{2}$
Reddish clay and gravel- - - -	3	23 $\frac{1}{2}$
Gravel and clay- - - - -	4	27 $\frac{1}{2}$
Red clay and small gravel- - -	2	29 $\frac{1}{2}$
No water sample collected. Mar. 2, 1936.		

Well 102

Dry creek bed, county road, NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 30, T. 1 S., Blk. 33, $7\frac{1}{2}$ miles southwest of Big Spring.

Fine brown sand- - - - -	2	2
Yellow sand and gravel- - - -	4	6
Yellow clay and gravel- - - -	1	7
Yellow clay- - - - -	2	9
Yellow sand and gravel- - - -	4	13
Yellow clay and small gravel- 3		16
No water sample collected. Mar. 12, 1936.		

Well 103

Dry creek bed, county road, SE. $\frac{1}{4}$, SE. $\frac{1}{4}$, Sec. 35, T. 1 S., Blk. 33, $6\frac{1}{4}$ miles south of Big Spring.

Surface soil- - - - -	2	2
Yellow sand and clay- - - - -	$\frac{1}{2}$	2 $\frac{1}{2}$
Yellow clay and gravel- - - -	$\frac{1}{2}$	3
Yellow sand and fine gravel - 1		4
Yellow sand, medium gravel, and clay- - - - -	2	6
Yellow clay and gravel- - - -	$\frac{1}{2}$	6 $\frac{1}{2}$
White clay and gravel- - - -	1	7 $\frac{1}{2}$
No water sample collected. Mar. 19, 1936.		

Well 104

Flat, Elbow store, NE. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 4, T. 1 S., Blk. 33, $6\frac{1}{2}$ miles south of Big Spring.

Surface soil- - - - -	6	6
Red and white clay- - - - -	2	8
White clay and caliche- - - -	14	22
Red clay- - - - -	6	28
White clay and caliche- - - -	9	37
Red clay and gravel- - - - -	$\frac{1}{2}$	37 $\frac{1}{2}$
Red clay, sand, and gravel- - 1 $\frac{1}{2}$		39
Red clay and gravel- - - - -	1	40
Gravel- - - - -	3	43
Struck water at 40 feet.		
Water level, 40 feet below top of ground, 8 hours after hole completed.		
No water sample collected. Mar. 24, 1936.		

Well 105

Hilltop, Mrs. Dora Roberts ranch, NE. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 45, T. 1 S., Blk. 31, 11 miles southeast of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil- - - - -	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Lime caliche- - - - -	1 $\frac{1}{2}$	3
Pink shale and gravel- - - -	3	6
Red clay, sand and gravel- - -	8 $\frac{1}{2}$	14 $\frac{1}{2}$
Red bed- - - - -	1 $\frac{1}{2}$	16
No water sample collected Mar. 26, 1936.		

Well 106

Flat, Mrs. Dora Roberts ranch, SE. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 81, W. and N. W. R. R. Co. Survey, Blk. 293, $10\frac{1}{2}$ miles southeast of Big Spring.

Sandy soil- - - - -	8	8
Red clay and caliche- - - - -	1	9
Pink clay and caliche- - - -	1	10
Red bed- - - - -	2	12
No water sample collected. Apr. 7, 1936.		

Well 107

Janyon, Mrs. Dora Roberts ranch, SW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 81, W. and N. W. R. R. Co. Survey, Blk. 29, $10\frac{1}{2}$ miles southeast of Big Spring.

Caliche- - - - -	3	3
Rock and caliche- - - - -	1	4
Hard white limestone- - - - -	2	6
No water sample collected. Apr. 8, 1936.		

Well 108

Valley floor, H. T. Hale tract, SW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, $12\frac{1}{2}$ miles east of Big Spring.

Black gumbo- - - - -	5 $\frac{1}{2}$	5 $\frac{1}{2}$
Sand and clay- - - - -	$\frac{1}{2}$	6
White clay and fine sand - - 1 $\frac{1}{2}$		7 $\frac{1}{2}$
Red sandy clay- - - - -	1 $\frac{1}{2}$	9
Sand and gravel- - - - -	3	12
Light red clay- - - - -	6	18
Struck water at 8.8 feet.		
Water level, 8.8 feet below top of ground, 1 hour after hole completed.		
Water sample collected. Apr. 9, 1936.		

Well 109

Valley floor, H. T. Hale tract, SW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, $12\frac{1}{2}$ miles northeast of Big Spring.

Black gumbo- - - - -	4 $\frac{1}{2}$	4 $\frac{1}{2}$
Red clay, sand, and gravel - 10		14 $\frac{1}{2}$
Struck water at 9.5 feet.		
Water level, 9.5 feet below top of ground, 1 hour after hole completed.		
No water sample collected. Apr. 9, 1936.		

Logs of test wells in Howard County--Continued

Well 110

Valley floor, H. T. Hale tract, NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, 12 $\frac{1}{2}$ miles northeast of Big Spring.

	Thickness (feet)	Depth (feet)
Black gumbo- - - - -	4 $\frac{1}{2}$	4 $\frac{1}{2}$
Red clay and gray sand- - -	3	7 $\frac{1}{2}$
Red clay and gravel- - - - -	11 $\frac{1}{2}$	19
Struck water at 7.6 feet.		
Water level 4.6 feet below top of ground, 1 hour after hole completed.		
No water sample collected. Apr. 10, 1936.		

Well 111

Valley, H. T. Hale tract, SW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, 12 $\frac{1}{2}$ miles east of Big Spring

Black gumbo- - - - -	5 $\frac{1}{2}$	5 $\frac{1}{2}$
Red clay and gravel- - - - -	7 $\frac{1}{2}$	13
Red clay		
Struck water at 5.7 feet.		
Water level, 5.7 feet below top of ground, 2 hours after hole completed.		
No water sample collected. Apr. 10, 1936.		

Well 112

Flat, H. T. Hale tract, NE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, 12 $\frac{1}{2}$ miles northeast of Big Spring.

Black gumbo- - - - -	5	5
Red clay- - - - -	1	6
Red clay, sand and small gravel- - - - -		
	4	10
Struck water at 6 feet.		
Water level, 6 feet below top of ground, 1 hour after hole completed.		
No water sample collected. Apr. 10, 1936.		

Well 113

Valley, H. T. Hale tract, NE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, 12 miles northeast of Big Spring.

Black shale- - - - -	5	5
Dark red clay- - - - -	2	7
Red clay, sand and gravel- -	3 $\frac{1}{2}$	10 $\frac{1}{2}$
Struck water at 7 feet.		
Water level, 6.5 feet below top of ground, 1 hour after hole completed.		
No water sample collected. Apr. 10, 1936.		

Well 114

Flat, H. T. Hale tract, SE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, 12 miles east of Big Spring.

Black surface soil- - - - -	2 $\frac{1}{2}$	2 $\frac{1}{2}$
Gray sand and clay- - - - -	4 $\frac{1}{2}$	7
Pink sand and gravel- - - - -	2	9
Pink clay, sand and gravel- -	4 $\frac{1}{2}$	13 $\frac{1}{2}$

Well 114--Continued

Struck water at 4.6 feet.
Water level 9.0 feet below top of ground, 2 hours after hole completed.
No water sample collected. Apr. 13, 1936.

Well 115

Flat, H. T. Hale tract, NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 32, T. 1 N., Blk. 30, 12 $\frac{1}{2}$ miles northeast of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil- - - - -	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Caliche and gray clay- - -	6	7 $\frac{1}{2}$
Gray sand- - - - -	4 $\frac{1}{2}$	12
Struck water at 9.4 feet.		
Water level, 9.4 feet below top of ground, 2 hours after hole completed.		
No water sample collected. Apr. 13, 1936.		

Well 116

Flat, D. A. Thomasson tract, NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 44, T. 1 N., Blk. 30, 12 $\frac{1}{2}$ miles east of Big Spring.

Sandy clay- - - - -	10	10
Red bed- - - - -	17	27
Sandstone- - - - -	5	32
Red and blue shale- - - - -	3	35
No water sample collected. Apr. 23, 1936.		

Well 117

Creek bed, H. N. Read Estate tract, NE. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 27, T. 1 N., Blk. 30, 15 $\frac{1}{2}$ miles northeast of Big Spring.

Red sandy shale- - - - -	8	8
Red bed- - - - -	17	25
Sandstone- - - - -	5	30
Red bed- - - - -	5	35
No water sample collected. Apr. 15, 1936.		

Well 118

Creek bed, near city sewer plant, NE. $\frac{1}{4}$, SW. $\frac{1}{4}$, Sec. 46, T. 1 S., Blk. 32, 3 $\frac{1}{4}$ miles east of Big Spring.

Surface clay and sand- - - -	3	3
Sand- - - - -	3	6
Red sand- - - - -	3	9
Struck water at 6 feet.		
Water level, 6.0 feet below top of ground, 1 hour after hole completed.		
No water sample collected. May 14, 1936.		

Logs of test wells in Howard County--Continued

Well 119

Flat, 18th. and Nolan Streets, SE. $\frac{1}{4}$, of NE. $\frac{1}{4}$, Sec. 6, T. 1 S., Blk. 32, 1 mile southeast of Big Spring courthouse.

	Thickness (feet)	Depth (feet)
Surface soil- - - - -	1	1
Caliche, yellow clay, and rock	$5\frac{1}{2}$	$6\frac{1}{2}$
Sandy gravel and clay- - - -	$1\frac{1}{2}$	8
Caliche and gravel- - - - -	1	9

No water sample collected. May 25, 1936.

Well 120

Flat, Lion Rice tract, NW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 5, T. 1 S, Blk. 32, $1\frac{1}{2}$ miles east of Big Spring courthouse.

Surface soil- - - - -	$3\frac{1}{2}$	$3\frac{1}{2}$
Reddish clay- - - - -	4	$7\frac{1}{2}$
Jaliche and gravel- - - - -	$5\frac{1}{2}$	13
Sand and gravel- - - - -	1	14
Reddish clay and gravel- - -	2	16
Reddish clay- - - - -	$2\frac{1}{2}$	$18\frac{1}{2}$
Yellow clay and gravel- - -	7	$25\frac{1}{2}$
Yellow clay- - - - -	$8\frac{1}{2}$	34
Pinkish clay and caliche- -	26	60
Jaliche, blue shale, and clay	5	65
Pink sandy shale- - - - -	5	70

No water sample collected. May 8, 1936.

Well 121

Flat, Boyd McDaniel Property, SW. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 5, T. 1 S., Blk. 32, 1 mile southeast of Big Spring courthouse.

Surface soil- - - - -	3	3
Pinkish clay and sand- - - -	7	10
Caliche and gravel- - - - -	$2\frac{1}{2}$	$12\frac{1}{2}$
Jaliche rock and gravel- - -	$1\frac{1}{2}$	14
Gravel- - - - -	4	18
Pink clay and gravel- - - -	10	28
Sand and small gravel- - - -	4	32
Sand and gravel- - - - -	4	36
Pink clay and gravel- - - -	$4\frac{1}{2}$	$40\frac{1}{2}$

No water sample collected. June 6, 1936.

Well 122

Hillside, Mary Foster ranch SE. $\frac{1}{4}$, SW. $\frac{1}{4}$, Sec. 6, T. 1 S., Blk, 30, $17\frac{1}{2}$ miles east of Big Spring.

Jaliche- - - - -	3	3
Sandstone- - - - -	11	14
Red clay and gravel- - - -	8	22
Blue shale and red clay- - -	1	23
Red shale and clay- - - -	6	29

No water sample collected. Apr. 11, 1936.

Well 123

Flat, L. M. Bankson tract, SE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 44, T. 1 N., Blk. 32, 1 mile northeast of Big Spring.

Surface soil- - - - -	4	4
Pink clay and sand- - - - -	6	10

Well 123--Continued

	Thickness (feet)	Depth (feet)
White sand- - - - -	4	14

Struck water at 10 feet.
Water level, 7.8 feet below top of ground, 24 hours after hole completed.
No water sample collected. July 7, 1936

Well 124

Flat, Ben P. Boydston tract, SW. $\frac{1}{4}$, SE. $\frac{1}{4}$, Sec. 41, T. 1 N., Blk. 32, 1 mile northeast of Big Spring courthouse.

Pink sandy soil- - - - -	11	11
Pink sand- - - - -	3	14

Struck water at 11.6 feet.
Water level, 12.0 feet below top of ground, 2 hours after hole completed.
Water sample collected. July 8, 1936.

Well 125

Flat, Ben P. Boydston tract, Sw. $\frac{1}{4}$, SE. $\frac{1}{4}$, Sec. 41, T. 1 N., Blk. 32, 1 mile northeast of Big Spring courthouse.

Surface soil- - - - -	2	2
Pink sand- - - - -	$9\frac{1}{2}$	$11\frac{1}{2}$
White water sand- - - - -	3	$14\frac{1}{2}$

Struck water at 12 feet.
Water level 12.0 feet below top of ground, $1\frac{1}{2}$ hours after hole completed.
No water sample collected. July 8, 1936.

Well 126

Flat, Hubert Weatherford tract, SE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 2, T. 1 S., Blk. 33, 2 miles southwest of Big Spring.

Black surface soil- - - - -	1	1
Red clay- - - - -	1	2
Jaliche- - - - -	1	3
Pink clay- - - - -	$13\frac{1}{2}$	$16\frac{1}{2}$

No water sample collected July 9, 1936.

Well 127

Creek bank. B. Reagan tract, NE. $\frac{1}{4}$, SE. $\frac{1}{4}$, Sec. 7, T. 1 S., Blk., 31, $6\frac{1}{2}$ miles east of Big Spring.

Pink sand and clay- - - - -	3	3
Pink clay and gravel- - - -	10	13
Pink clay and sand- - - - -	3	16
Gravel and pink sand- - - -	2	18
Sand and gravel- - - - -	1	19
Large boulders, clay and gravel- - - - -	$2\frac{1}{2}$	$21\frac{1}{2}$
Clay, rock and gravel- - -	$1\frac{1}{2}$	22

Struck water at 21.6 feet.

Water level, 20.0 feet below top of ground 24 hours after hole completed.
Water sample collected. Aug. 3, 1936.

Logs of test wells in Howard County--Continued

Well 128

Flat, B. Reagan tract, SE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 7, T. 1 S., Blk. 31, 6 miles east of Big Spring.

	Thickness (feet)	Depth (feet)
Red clay- - - - -	2	2
Red sandy clay- - - - -	13	15
Red water sand and gravel	3	18
Struck water at 15 feet.		
Water level, 15.0 feet below top of ground, 1 hour after hole completed.		
Water sample collected. Sept. 9, 1936.		

Well 129

Valley, Wilson and Co. Est., SE. $\frac{1}{4}$, SW. $\frac{1}{4}$, Sec. 27, T. 1 S., Blk, 33, 5 $\frac{3}{4}$ miles south of Big Spring.

Surface sand- - - - -	4	4
Jaliche- - - - -	4 $\frac{1}{2}$	8 $\frac{1}{2}$
Gravel, sand, and broken limestone- - - - -	2	10 $\frac{1}{2}$
Chalky clay- - - - -	3 $\frac{1}{2}$	14
Joarse gravel- - - - -	4	18
Medium gravel- - - - -	3	21
Sandy clay- - - - -	3	24
Coarse gravel- - - - -	4 $\frac{1}{2}$	28 $\frac{1}{2}$
Sandy clay- - - - -	4	32 $\frac{1}{2}$
Hard chalky clay- - - - -	2	34 $\frac{1}{2}$
Broken limestone and clay - -	4 $\frac{1}{2}$	38 $\frac{1}{2}$
Fine sand, and coarse gravel- 2		40 $\frac{1}{2}$
Hard loose boulders, sand, and gravel- - - - -	2 $\frac{1}{2}$	43
Water level, 39.0 feet below top of ground, 2 hours after hole completed.		
No water sample collected. Mar. 3, 1936.		

Well 130

Flat, L. M. Benksen tract, SW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 44, T. 1 N., Blk. 32, 1 $\frac{1}{2}$ miles northeast of Big Spring.

	Thickness (feet)	Depth (feet)
Surface soil- - - - -	3	3
Sand and gravel- - - - -	2	5
Pinkish sand and gravel - - -	2	7
Pink sand and small gravel- -	4	11
White sand- - - - -	2	13
Struck water at 10.6 feet.		
Water level, 7.6 feet below top of ground, 1 hour after hole completed.		
Water sample collected. July 6, 1936.		

Altitude above sea level of surface at W. P. A. test wells.
(Taken with barometer)

Well Number	Altitude	Well number	Altitude
101	Not taken	116	Not taken
102	do.	117	do.
103	2,588	118	do.
104	2,540	119	do.
105	2,430	120	2,428
106	2,520	121	2,430
107	2,535	122	2,390
108	2,390	123	Not taken
109	2,392	124	do.
110	2,390	125	do.
111	2,392	126	do.
112	2,393	127	do.
113	2,392	128	do.
114	2,391	129	2,365
115	2,391	130	Not taken

Partial analyses of water from wells in Howard County, Texas.

(Analyzed at the State University under the direction of Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry, by J. E. Stullken, C. R. Stewart, D. F. Riddell, and Alfred J. Kelly, Chemists, and J. A. Harmaza, Martin Wieland and Jack Ramsey, Assistant Chemists. Results are in parts per million. Well numbers correspond to numbers in table of well records.)

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
1	City of Big Spring	239	Jan. 17, 1936	315	71	20	12	154	15	42	307
2	do.	176	do.	343	62	21	35	144	31	44	258
3	do.	243	do.	346	84	19	23	147	38	34	287
4	do.	214	do.	329	127	15	55	181	31	119	382
6	do.	131	Feb. 5, 1936	155	120	4	4	12	a/	14	218
9	do.	121	Feb. 22, 1936	239	40	10	28	144	a/	17	205
12	do.	130	Jan. 22, 1936	245	84	3	11	269	a/	18	222
13	do.	88	Jan. 28, 1936	251	73	3	11	99	50	10	208
14	do.	146	Jan. 22, 1936	-	85	13	-	129	a/	18	268
15	do.	126	Jan. 24, 1936	297	75	-	39	256	41	14	187
16	do.	153	Jan. 28, 1936	971	818	-	12	126	a/	15	205
17	do.	139	Jan. 23, 1936	-	-	199	4	-	2	130	205
18	do.	153	Jan. 22, 1936	264	77	24	6	136	a/	20	292
18a	do.	147	do.	282	-	-	20	272	11	26	224
19a	do.	172	do.	250	67	15	10	132	12	15	230
21a	do.	137	Jan. 28, 1936	230	70	14	2	135	a/	9	233
23	do.	181	Feb. 10, 1936	274	86	6	14	305	a/	16	241
24a	do.	260	do.	239	71	2	55	256	60	23	185
27	do.	176	Jan. 7, 1936	330	42	2	77	183	90	28	115
28	do.	260	do.	272	54	6	45	256	15	24	162
29	do.	248	do.	289	84	2	28	128	a/	47	217
30	do.	248	do.	1,392	1,156	11	95	297	a/	33	335
32	do.	259	Feb. 6, 1936	298	70	3	41	120	38	26	188
33	do.	265	do.	259	64	-	38	111	11	35	159
34	do.	251	Feb. 5, 1936	234	74	1	13	123	a/	23	210
34a	do.	256	May 3, 1936	216	32	2	50	158	15	38	90
36	do.	260	do.	239	53	3	37	201	15	31	145
38	do.	254	Feb. 3, 1936	292	95	1	19	150	a/	27	295
40a	do.	260	do.	272	45	8	51	232	19	33	146
41	do.	256	Feb. 5, 1936	601	212	-	-	150	214	25	529

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued.

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
46	City of Big Spring	260	Feb. 2, 1936	144	-	6	49	61	8	51	23
48	do.	260	do.	307	75	3	39	262	34	25	201
49	do.	260	do.	249	5	4	90	195	26	27	31
50	do.	218	Feb. 10, 1936	319	66	11	42	250	26	49	211
51	do.	174	do.	314	66	11	39	244	32	44	211
52a	do.	316	do.	343	69	6	54	244	45	47	196
52	do.	303	do.	331	55	7	67	232	34	52	166
55	do.	203	Feb. 12, 1936	300	72	4	41	268	13	36	195
56	do.	220	Feb. 3, 1936	353	79	7	46	123	53	45	225
58	do.	300	do.	249	43	6	46	183	24	39	131
59a	do.	282	do.	298	71	6	40	256	30	33	201
60	do.	233	Feb. 12, 1936	173	38	11	15	159	a/	30	141
61	do.	227	Feb. 13, 1936	177	34	4	32	153	a/	31	100
62	do.	183	Feb. 19, 1936	410	72	8	101	262	159	39	216
63	do.	267	-	301	67	6	26	238	41	42	241
64	do.	250	Feb. 11, 1936	231	70	6	13	250	a/	17	201
65	do.	252	Feb. 12, 1936	284	66	11	28	256	28	23	211
68	do.	102	Feb. 17, 1936	302	8	6	110	262	a/	46	46
69	do.	129	do.	354	64	16	48	256	48	50	226
70	do.	84	do.	373	82	11	52	366	a/	45	251
71	do.	74	Feb. 12, 1936	258	86	8	4	287	a/	17	251
81	T. & P. R.R. Co.	169	Jan. 20, 1936	182	88	5	22	5	33	29	243
86	do.	193	Jan. 21, 1936	366	50	24	55	135	48	54	230
108	W.P.A. test well	18	Apr. 9, 1936	1,764	49	77	505	755	401	355	439
124	do.	14	July 8, 1936	1,282	231	82	78	348	576	144	916
127	do.	22	Aug. 3, 1936	505	120	4	166	415	a/	8	315
128	do.	18	Sept. 11, 1936	23,995	-	-	-	415	2,792	12,600	-
130	do.	13	July 7, 1936	588	-	-	-	488	84	44	-
501	Mrs. G. Connolly, et al.	80	Feb. 2, 1936	1,146	124	58	208	110	211	490	547
502	Wilson & Co. heirs	51	Mar. 3, 1936	1,657	137	59	357	244	507	465	584
503	Elbow School	50	do.	2,359	293	113	411	247	340	1,080	1,188
504	Mrs. G. Connolly, et al.	37	do.	2,395	-	-	-	256	458	980	-
506	J.C. McKinnon heirs		do.	604	-	-	-	232	108	166	-
507	Mrs. G. Connolly, et al.	37	do.	628	64	25	131	110	108	245	263

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Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
508	I.B. Cauble	34	Mar. 3, 1936	735	-	-	-	330	134	174	-
510	Wilcox and Co.	71	Mar. 4, 1936	449	-	-	-	207	68	116	-
511	J.C. McKinnon heirs	53	do.	2,813	292	120	541	317	672	1,030	1,245
512	I.B. Cauble	75	do.	2,686	-	-	-	269	614	1,020	-
513	do.	51	do.	1,948	-	-	-	244	206	930	-
514	J.M. Coleman	51	do.	2,417	-	-	-	269	303	1,130	-
515	J.F. Ramsey	34	do.	6,686	-	-	-	855	1,705	2,280	-
516	R.C. Reed	42	do.	643	80	37	115	366	54	174	350
517	L.S. McDowell & son	59	do.	487	-	-	-	330	54	88	-
518	L.A. Ford	45	do.	1,815	163	64	394	317	526	510	668
519	J.C. McKinnon heirs	86	Mar. 5, 1936	328	-	-	-	207	58	48	-
520	do.	35	do.	412	-	-	-	293	45	68	-
521	Mrs. F.L. Bell	68	do.	399	72	13	65	293	31	72	232
522	J.C. McKinnon heirs	39	do.	1,353	220	39	208	232	300	470	710
523	J.D. McKinnon	39	do.	300	-	-	-	232	19	52	-
524	J.B. Pickle	42	do.	2,193	139	76	545	438	614	600	659
525	T.W. Ashley	86	do.	399	-	-	-	354	a/	68	-
526	I.B. Cauble	107	do.	382	40	21	80	293	31	64	188
527	do.	80	Mar. 6, 1936	336	-	-	-	280	17	52	-
528	Mabel Quinn	79	do.	574	54	28	129	317	61	144	248
529	Chas. Eberley	59	do.	1,198	89	66	247	330	353	278	493
530	do.	55	do.	1,607	-	-	-	359	457	425	-
531	W.F. Fahrenkamp	53	do.	1,422	77	71	338	305	384	400	478
532	do.	58	do.	3,672	-	-	-	158	1,121	1,250	-
533	C.E. Talbot	57	Mar. 9, 1936	2,121	-	-	-	262	876	425	-
534	Cleveland Newman	42	do.	4,043	-	-	-	512	1,609	860	-
535	W.G. Bailey	60	do.	1,248	114	78	206	281	484	226	605
536	T.W. Haynie	41	do.	2,301	-	-	-	262	899	520	-
537	Milred Jones	42	do.	1,719	118	110	321	244	703	345	759
538	C. Newman	47	do.	3,103	160	197	644	372	1,056	860	121
539	Lomax School Dist,	16-58	do.	1,492	113	97	268	280	534	340	682
540	Mrs. J.A. McDaniel	56	do.	1,352	72	88	271	189	507	320	545
541	C. Kornegay Gin	59	do.	1,558	126	107	260	268	561	370	759
542	Sam Turner	60	do.	2,524	-	-	-	280	759	780	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
543	T.J. McIlvain	59	Mar.10,1936	1,341	-	-	-	268	640	460	-
544	do.	59	do.	1,797	138	120	311	244	631	475	840
545	J.H. Homan	53	do.	1,531	-	-	-	231	545	364	-
546	do.	63	do.	1,833	-	-	-	213	3,617	480	-
547	Mabel Quinn	64	do.	1,326	-	-	-	225	353	410	-
548	do.	16	do.	2,717	160	209	510	623	787	740	126
549	do.	38	do.	11,050	67	635	2,930	543	3,517	3,530	2,830
550	do.	34	do.	1,087	-	-	-	481	185	275	-
551	do.	14	do.	2,573	-	-	-	439	895	605	-
552	A.J. Stallings	64	Mar.11,1936	497	37	62	73	525	38	25	348
553	do.	62	do.	1,677	-	-	-	207	457	550	-
554	L.E. Lomax Estate	60	do.	1,688	-	-	-	250	445	545	-
555	do.	71	do.	1,703	114	110	326	305	576	425	739
556	M.H. Connell	63	do.	1,349	-	-	-	220	415	370	-
558	Butler Barnette	67	do.	1,732	-	-	-	220	388	640	-
559	J.C. Turner	60	do.	2,923	-	-	-	170	861	1,000	-
560	H.O. Phillips	57	do.	1,899	126	134	340	244	689	490	867
561	Sam Turner	57	do.	1,890	-	-	-	256	689	450	-
562	L.E. Lomax Estate	58	do.	2,392	-	-	-	225	719	760	-
563	do.	58	do.	1,618	113	106	302	244	547	430	718
564	C.W. Newman	62	do.	1,944	-	-	-	274	711	455	-
565	Mrs. G. Connelly, et al.	29	Mar.12,1936	1,586	-	-	-	341	232	625	-
566	Mrs. A.T. Bronaugh	31	do.	1,733	133	89	373	366	378	580	701
567	Mrs. W.J. Bronaugh	43	do.	3,100	-	-	-	317	614	1,260	-
568	Roy Wilcox	40	do.	3,110	-	-	-	512	696	1,090	-
569	J.B. Harding	67	do.	1,135	61	66	272	390	189	355	423
570	do.	36	do.	2,670	254	104	573	183	449	1,200	1,063
571	J.W. Thorp	70	do.	7,553	-	-	-	323	1,900	2,940	-
572	do.	98	do.	1,646	-	-	-	219	262	700	-
573	J.O. Rosser	99	do.	6,740	934	175	1,480	171	1,647	2,420	2,052
574	J.C. McKinnon	42	do.	2,467	-	-	-	262	674	830	-
575	J.T. Frazier	165	do.	1,827	14	38	615	476	461	465	190
576	A.W. Yates	66	Mar.16,1936	588	-	-	-	292	71	152	-
577	C.B. Whatley	118	do.	469	-	-	-	268	30	132	-
578	R.I. Finley	124	do.	475	36	20	123	268	30	134	173

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
579	H.E. Dunagan	135	Mar.16,1936	2,096	-	-	-	207	477	800	-
580	A.D. Franklin	135	do.	2,168	-	-	-	244	518	790	-
581	T.H. Gashins	131	do.	9,659	380	206	2,750	207	2,669	3,420	1,796
582	H. Cowden	154	do.	850	-	-	-	305	131	265	-
583	E.E. Brindley	125	do.	790	-	-	-	317	169	186	-
584	J.C. McKinnon heirs	41	do.	555	86	15	100	244	96	138	277
585	A.M. Fisher	73	do.	199	-	-	-	170	a/	38	-
586	J.M. Fisher et al	58	do.	218	-	-	-	207	15	17	-
587	A.M. Fisher	73	do.	276	34	14	54	177	23	64	142
588	do.	69	do.	1,047	-	-	-	213	246	335	-
589	do.	76	do.	896	36	35	250	293	184	245	234
590	E.C. Hill Estate	43	do.	2,020	-	-	-	61	668	655	-
591	Mrs. Eva Smith	54	Mar.17,1936	904	78	45	285	220	31	355	380
592	R.J. Stripling	82	do.	688	-	-	-	268	138	174	-
593	J.W. Thorp	46	do.	338	95	9	16	201	54	64	276
594	Leo Nall	208	do.	357	-	-	-	268	15	74	-
596	Mrs. G. Connally et al	170	do.	586	-	-	-	244	100	156	-
597	J.B. Pickle	146	do.	633	68	20	137	244	142	144	252
598	L.B. Wright	102	do.	628	-	-	-	598	38	54	-
599	B. & J.M. Fisher	65	do.	241	46	5	44	232	4	26	136
600	J.P. Callahan	113	do.	573	-	-	-	195	104	170	-
603	W.R. Creighton	96	Mar.18,1936	6,320	556	256	1,310	256	1,672	2,400	2,481
604	J.T. Frazier	116	do.	2,484	-	-	-	86	799	820	-
605	do.	120	do.	2,078	-	-	-	232	538	720	-
607	Mrs. Anna Coleman	125	do.	699	33	26	199	329	115	164	188
608	J.M. Anderson	118	do.	253	-	-	-	238	19	20	-
609	Joe Flock	125	do.	439	16	15	138	342	58	44	102
610	J.B. Pickle	71	do.	615	-	-	-	366	61	146	-
611	W.R. Creighton	104	do.	3,486	-	-	-	262	938	1,240	-
613	S.A. Petty	82	Mar.19,1936	809	44	25	219	207	189	230	213
614	M.M. Edwards	100	do.	416	-	-	-	220	65	92	-
615	D.B. Cox	89	do.	498	-	-	-	256	75	116	-
616	A.M. Fisher	237	Mar.23,1936	256	59	3	37	207	19	36	160

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Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
617	T.S. Currie	97	Mar. 23, 1936	340	-	-	-	232	26	72	-
618	G.W. Overton	159	do.	289	31	8	71	159	19	82	112
619	Am. Maracaibo Oil Co.	170	Mar. 26, 1936	286	60	5	46	232	15	46	171
620	W.R. Settles	160	do.	297	52	13	47	256	23	36	182
621	do.	160	Mar. 23, 1936	369	64	5	73	268	43	52	181
621a	do.	160	do.	346	72	10	48	244	28	68	222
622	do.	221	do.	259	80	8	11	256	a/	32	231
623	Borsus Water Works	285	Mar. 24, 1936	320	56	11	52	238	34	50	187
624	Clayton Stewart	282	do.	236	-	-	-	144	28	39	-
625	Mrs. Dora Roberts	196	do.	277	48	10	49	262	10	29	161
626	do.	207	do.	870	156	17	145	159	54	420	462
627	do.	37	Mar. 25, 1936	355	64	10	60	281	41	42	202
628	do.	23	do.	280	-	-	-	250	11	38	-
629	do.	22	do.	250	-	-	-	158	45	36	-
630	do.	18	do.	294	40	25	40	262	23	37	203
631	do.	12	do.	233	-	-	-	164	23	42	-
632	do.	41	do.	379	96	10	37	324	31	46	281
633	do.	59	do.	286	-	-	-	244	19	38	-
634	do.	102	do.	290	-	-	-	268	23	24	-
635	do.	214	do.	296	75	3	39	281	11	30	200
636	J. & B. Fisher	108	July 17, 1936	214	-	-	-	219	4	18	-
637	J.W. Baker	200	-	290	64	7	42	256	15	36	186
638	H.R. Clay	100	Apr. 6, 1936	272	80	8	18	293	a/	20	231
639	R.C. Sanderson	97	do.	250	-	-	-	213	11	38	-
640	do.	21	do.	344	72	10	49	293	23	46	222
641	E.W. Douthit	32	do.	303	67	5	47	280	10	34	186
642	do.	45	do.	308	77	6	37	293	4	38	216
643	Mrs. Dora Roberts	18	Apr. 7, 1936	309	88	10	19	311	10	27	261
643a	E.W. Douthit	42	Apr. 6, 1936	251	69	3	27	256	a/	24	186
644	Chalk School	44	Apr. 7, 1936	392	76	13	57	281	44	64	242
645	Otis Chalk	48	do.	223	-	-	-	116	42	44	-
646	do.	30	do.	328	72	13	36	262	30	46	232
647	do.	80	do.	239	38	6	50	220	11	26	140
648	do.	100	do.	253	67	3	29	244	8	26	181

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Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate Sulphate (HCO ₃) (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
650	Ferry Hyman	18	Apr.16,1936	1,159	-	-	-	315 230	370	-
651	M.H. O'Daniel	7	do.	852	-	-	-	378 186	178	-
653	Mary Foster	72	Apr.15,1936	592	12	16	201	415 79	80	97
654	E.C. Saunders	54	Apr.17,1936	1,235	189	72	151	268 226	455	769
655	H.T. Hale	35	Apr.20,1936	1,414	189	87	199	268 257	550	831
656	Magnolia Petr. Co.	20	do.	869	96	37	185	378 98	270	390
657	do.	14	do.	432	62	18	82	305 42	78	227
658	J.P. Davis	18	Apr.21,1936	1,940	-	-	-	720 396	505	-
659	C.A. Cranfill	17	do.	1,089	35	46	306	549 326	106	276
660	Le Roy Echols	37	do.	2,142	-	-	-	292 1,045	270	-
661	Elbert Echols	44	do.	730	-	-	-	292 165	164	-
662	G.W. McGregor	72	do.	2,189	-	-	-	231 396	920	-
663	Mrs. J.B. Moore	23	do.	1,166	92	40	282	452 300	230	395
664	Louie Hutto	63	do.	2,652	381	107	404	195 634	1,030	1,393
665	Mrs. W.S. Miller	27	do.	1,103	-	-	-	280 369	224	-
666	Chas. Robinson	41	do.	3,837	-	-	-	140 983	1,490	-
667	Ray Wilcox	46	do.	4,491	-	-	-	110 1,275	1,660	-
668	Walter Robinson	75	do.	3,002	-	-	-	152 607	1,290	-
669	Mrs.O.L. Williams et al.	14	Apr.22,1936	958	78	63	177	366 300	160	453
670	G.W. McGregor	34	do.	1,424	-	-	-	534 522	220	-
672	Bob Powell	30	do.	1,161	-	-	-	274 407	230	-
673	C.D. Read	16	Apr.24,1936	1,210	6	89	345	782 171	215	371
674	R.A. McQuerry	16	do.	1,179	31	103	248	585 419	90	503
675	B.F. McKinney	27	do.	1,462	43	112	325	220 369	505	569
676	H.D. Barron	24	do.	1,312	-	-	-	402 296	360	-
677	H.T. Hale	16	do.	1,378	26	77	395	727 253	270	380
678	A.D. Shive	19	do.	814	-	-	-	462 209	88	-
679	J.C. Hale Estate	49	do.	2,182	7	100	665	830 607	395	428
680	L.E. Coleman	72	do.	3,734	111	256	864	250 960	1,420	1,332
680a	do.	100	Sept.18,1936	1,458	197	97	187	329 318	495	892
681	N.G. Hoover	47	Apr.27,1936	1,414	188	39	272	330 303	450	630
682	Chas. Robinson	55	do.	4,252	-	-	-	189 1,237	1,500	-
683	Walter Robinson Est.	94	do.	2,474	-	-	-	207 213	1,280	-
684	M.G. Riggan	96	do.	2,029	-	-	-	116 273	990	-

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
685	Lillie O. Sides	30	Apr. 27, 1936	435	22	22	117	269	58	84	143
686	C.L. Barnes	126	do.	360	-	-	-	262	27	68	-
687	Ray Wilcox	144	do.	459	-	-	-	268	65	94	-
688	do.	175	do.	473	74	18	84	311	48	96	257
689	Clay Read	42	do.	280	-	-	-	207	27	46	-
689a	M.H. Cardwell Springs	Mar. 24, 1936	583	44	39	116	384	169	23	270	
690	J.G. Arnett	61	Apr. 27, 1936	2,332	214	72	505	244	641	780	870
691	Cliff Tolbert	106	do.	1,812	322	93	202	207	223	870	1,187
692	Cosden Refining Co.	130	do.	355	66	17	51	293	15	62	232
693	do.	130	do.	252	50	11	35	256	11	19	172
694	do.	135	do.	2,040	290	93	310	195	611	700	1,107
695	W.P. Young	51	Apr. 28, 1936	452	-	-	-	366	61	42	-
696	W.M. Spears	59	do.	1,060	-	-	-	280	288	270	-
697	W.W. Lay	49	do.	1,668	-	-	-	231	442	700	-
698	R.V. Guthrie	38	do.	329	-	-	-	244	46	41	-
699	W.W. Lay	59	do.	453	8	43	102	220	96	96	195
700	J.R. Wheeler	60	do.	3,109	-	-	-	134	472	1,490	-
701	S.B. Buchanan	75	do.	354	-	-	-	329	15	40	-
702	Mrs. Kate Wolf	25	do.	373	78	14	48	220	8	117	252
703	Leon Moffett	50	do.	530	-	-	-	286	54	140	-
704	Frank Loveless	8	do.	1,318	22	75	374	757	307	168	364
705	W.H. Robinson	72	do.	2,980	-	-	-	195	710	1,160	-
706	Rose Feeler	56	do.	2,291	-	-	-	470	518	750	-
707	R.V. Guthrie	84	do.	2,254	-	-	-	201	515	870	-
708	Jas. E. Robinson	48	do.	398	98	14	37	293	15	90	302
709	Cosden Refining Co.	99	May 1, 1936	347	52	17	62	317	35	25	197
710	Sam Buchanan	102	do.	939	106	51	152	317	330	144	476
711	W.C. Westfall	87	do.	2,699	-	-	-	232	455	1,190	-
712	S.D. Buchanan	53	do.	4,195	-	-	-	244	1,198	1,470	-
713	M.W. Walker	63	do.	1,661	184	105	277	232	211	770	893
714	do.	71	do.	348	-	-	-	378	11	14	-
715	S.D. Buchanan	69	do.	2,347	-	-	-	220	515	920	-
716	M.W. Walker	78	do.	2,156	233	99	423	159	223	1,100	987
717	J.W. Walker Estate	97	do.	1,019	112	72	158	220	169	400	574
718	E.C. Saunders Est.	65	do.	1,295	194	71	175	297	238	470	774

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
719	Lee Nuckles	130	May 7, 1936	3,550	376	117	720	250	914	1,300	1,424
719a	W.R. Settles	160	Oct.18,1936	388	90	18	37	311	a/	90	301
720	I.W. McNew	79	May 18,1936	494	-	-	-	537	15	21	-
721	J.A. Walker	95	do.	2,691	-	-	-	201	415	1,240	-
722	G.W. Davis	76	do.	1,631	154	100	289	403	415	475	803
723	J.A. Bishop	69	do.	312	60	20	38	348	11	12	232
724	E.C. Crittenden	71	do.	471	-	-	-	470	42	17	-
725	R-Bar School	45	do.	352	7	41	75	317	42	31	185
726	B.F. Miller	41	do.	410	-	-	-	415	35	13	-
727	Jas. E. Robinson	40	do.	305	-	-	-	342	a/	16	-
728	do.	34	do.	1,352	114	109	210	452	442	255	734
729	R.E. Martin	52	do.	329	-	-	-	311	31	19	-
730	Jas. E. Robinson	60	do.	340	58	24	41	269	23	62	243
731	Mrs. M.L. Misgrove	167	May 18,1936	796	-	-	-	372	177	154	-
732	Earl Hull	57	do.	1,496	171	95	225	232	381	510	816
733	S.L. Hull	87	do.	852	127	52	108	269	173	260	532
734	B.T. Birkhead	63	do.	2,869	-	-	-	177	576	1,220	-
735	C.D. Read	94	do.	523	-	-	-	268	77	124	-
736	J.M. Wilson	46	May 19,1936	274	-	-	-	293	4	18	-
737	D.W. Logan	79	do.	2,147	353	136	221	232	353	970	1,442
738	W.W. Lay	34	do.	776	86	34	156	397	165	140	354
739	R.V. Guthrie	95	do.	816	-	-	-	512	127	138	-
740	do.	76	do.	1,400	134	73	270	378	342	395	654
741	do.	42	do.	1,351	87	76	302	470	330	325	530
742	P.N. Shive	61	do.	2,444	-	-	-	329	722	740	-
743	Mrs. W.P. Young	45	do.	4,158	-	-	-	177	1,133	1,540	-
744	Can Powell	80	do.	487	58	23	97	281	61	110	238
745	S.D. Buchanan	64	do.	2,479	-	-	-	355	649	780	-
746	J.M. Pyle Estate	43	do.	678	86	26	125	281	169	134	323
747	C.C. Harrington	51	do.	581	-	-	-	336	134	74	-
748	W.F. Heckler	44	do.	1,103	141	55	181	305	246	330	577
749	Alvin Walker	33	do.	571	-	-	-	372	84	94	-
750	A.W. Rowe	176	do.	3,881	51	31	1,190	427	1,029	1,370	255
751	J.B. Wheat	195	do.	3,516	-	-	-	567	841	1,190	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate Sulphate (HCO ₃) (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
752	C.E. Kincannon	217	May 21, 1936	3,740	48	25	1,300	452 905	1,240	223
753	Ben Brown	175	do.	3,568	-	-	-	500 883	1,220	-
754	Am. Nat'l. Ins. Co.	219	June 1, 1936	4,598	-	-	-	537 1,467	1,330	-
755	N. E. McMinn	224	do.	3,826	37	19	1,355	494 952	1,220	172
756	J.T. Joiner	86	do.	2,770	-	-	-	519 684	880	-
757	G.H. Brown	90	do.	3,459	-	-	-	488 791	1,240	-
758	J.L. Jones Estate	204	do.	3,144	-	-	-	512 764	1,050	-
759	L.W. Jones	261	do.	3,202	17	17	1,176	690 603	1,050	112
760	M.N. Brown	226	do.	3,478	-	-	-	519 791	1,220	-
761	J.L. Jones Estate	166	do.	2,980	-	-	-	653 622	1,000	-
762	C.H. Rutledge	225	do.	3,179	22	24	1,140	659 699	970	153
763	E. Guffee	217	do.	4,166	-	-	-	555 975	1,490	-
764	do.	170	do.	5,704	-	-	-	519 1,475	2,040	-
765	J.L. Jones Estate	186	June 2, 1936	3,806	-	36	1,385	696 783	1,260	150
766	Mrs. M.N. Brown	123	do.	3,067	-	-	-	695 637	1,020	-
767	J.D. Williams	89	do.	849	38	66	187	482 205	116	366
768	Texas Land and Mortgage Co.	50	do.	448	-	-	-	299 104	36	-
769	do.	66	do.	1,331	196	78	126	305 753	38	813
770	R.T. Shaffer	63	do.	524	-	-	-	329 113	60	-
771	do.	51	do.	533	-	-	-	360 100	62	-
773	Wayne Ingram	23	do.	373	-	-	-	378 27	16	-
774	W.A. Reed	65	do.	449	61	21	76	293 117	30	238
775	Lee Warren	243	do.	3,177	17	21	1,130	380 787	1,030	128
776	J.L. Jones Estate	271	do.	3,197	54	-	1,150	549 653	1,070	134
777	F.P. Dearen	129	June 3, 1936	4,251	128	116	1,130	311 2,269	455	797
778	J.H. Appleton	22	do.	1,153	-	-	-	183 687	19	-
779	G.W. Barber Jr.	233	do.	2,134	75	32	624	153 868	460	320
780	J.P. Anderson	81	do.	606	-	-	-	226 180	106	-
781	M.C. Buchanan	99	do.	432	-	-	-	275 73	66	-
783	Jim Moates	101	do.	329	41	14	68	256 34	46	163
784	Mrs. Minnie Smith	115	do.	348	24	18	90	299 31	38	136
785	G.Y. Wilson Estate	20	do.	267	-	-	-	293 8	10	-
786	do.	224	do.	2,660	-	-	-	153 852	850	-
789	Mrs. Minnie Smith	99	June 4, 1936	418	48	23	87	378 34	40	214

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Bicarbonate Potassium (Na / K) (HCO ₃) (calculated)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)	
789	Mrs. Minnie Smith	209	June 4, 1936	449	65	12	87	220	73	104	213
790	do.	46	do.	349	-	-	-	403	a/	12	-
791	J.P. Anderson	64	do.	341	-	-	-	336	27	18	-
792	E.R. Gideon	124	do.	627	25	14	198	281	100	152	118
793	C.B. Lawrence	135	do.	500	-	-	-	336	104	50	-
794	W.M. Read	140	June 5, 1936	463	60	16	91	244	92	84	217
795	G.J. Couch	146	do.	369	-	-	-	244	53	60	-
796	J.F. Heckler	150	do.	344	46	4	84	244	38	52	131
797	Lewis Underwood	140	do.	493	-	-	-	183	165	70	-
798	L.F. Lawrence	144	do.	326	-	-	-	250	38	43	-
799	G.W. Keel	141	do.	350	-	-	-	231	53	54	-
800	J.A. Wasson	148	do.	413	-	-	-	238	81	66	-
801	Arch. C. Ginsley	158	do.	366	40	10	89	250	46	58	142
802	Bill Poe	143	do.	430	-	-	-	220	88	80	-
803	Gay Hill School	159	do.	402	46	14	85	213	88	64	172
804	Mrs. Laura A. Simpson	160	do.	351	-	-	-	232	54	54	-
805	do.	149	do.	394	-	-	-	238	96	42	-
806	M.C. Hayden	160	do.	310	38	10	71	256	27	38	137
807	Edward Simpson	171	do.	287	22	17	69	256	23	30	127
808	Tom Spencer	152	June 9, 1936	360	-	-	-	268	46	48	-
809	E. Clanton	68	do.	465	-	-	-	244	61	114	-
810	S.L. Lockhart	68	do.	493	102	14	78	268	65	102	312
811	H.H. Harland	50	do.	906	81	28	215	342	204	210	319
812	Akin Simpson	159	do.	294	14	15	79	195	50	40	97
813	J.W. Nix	160	do.	335	-	-	-	281	19	50	-
814	A.W. Nix Estate	160	do.	369	28	15	98	293	38	46	132
815	W.L. Scott	170	do.	352	34	12	89	293	35	38	137
816	R.C. Oliver	159	do.	355	-	-	-	281	42	42	-
817	W.S. Proctor	144	do.	407	-	-	-	293	54	58	-
818	Williams and Miller Gin Company	152	do.	389	19	23	101	293	58	44	143
819	Sid Oliver	160	do.	428	-	-	-	445	22	20	-
820	W.R. Puckett	105	do.	387	-	-	-	232	65	48	-
821	O.J. Brown	127	June 10, 1936	396	-	-	-	329	38	46	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued
 Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
822	J.B. Ryan	141	June 10, 1936	567	55	31	121	384	77	94	264
823	W.B. Puckett	115	do.	271	-	-	-	177	58	28	-
824	Atlas Life Ins. Co.	120	do.	315	22	16	79	219	42	48	121
825	Mrs. Florence Jones	119	do.	453	-	-	-	256	77	86	-
826	H.S. Miller	129	do.	348	-	-	-	244	38	60	-
827	W.C. Brooks	117	do.	401	-	-	-	366	38	30	-
828	Mrs. W.B. Sneed	113	do.	339	23	21	86	330	19	28	143
829	Elmer Terry	114	do.	521	53	32	104	372	65	84	264
830	Geo. McGreagor	46	do.	1,454	91	81	327	293	307	504	560
831	Guy Wallace	84	do.	846	-	-	-	207	204	248	-
832	T.F. Nabors	66	Sept. 1, 1936	1,936	155	27	466	317	511	510	499
833	A.C. Brigance	161	do.	1,124	68	4	323	256	181	348	185
835	Mrs. W.T. Reed	158	do.	287	23	22	58	244	23	36	149
836	Ed Muriel	103	do.	398	35	14	102	262	46	72	143
837	Mrs. M.J. Bogard	152	do.	476	-	-	-	244	84	100	-
838	W.M. Reidy	149	do.	379	26	11	108	281	50	46	112
839	Lone Star Land Co.	159	do.	1,049	230	76	35	171	154	470	887
840	H.A. Pace	175	do.	285	-	-	-	244	15	40	-
841	P.E. McKee	102	Sept. 1, 1936	393	15	14	125	329	35	42	93
842	J.F. Winnan	99	do.	377	-	-	-	360	27	28	-
843	C.E. West	141	do.	489	-	-	-	372	61	62	-
844	G.T. Palmer	134	do.	444	36	27	100	348	54	56	202
845	Ray Smith	56	Sept. 2, 1936	403	103	49	-	354	15	62	460
846	Earl Phillips	48	do.	2,291	191	97	500	401	695	610	875
848	C.O. Robertson	137	do.	374	-	-	-	293	50	40	-
849	Rosetta Blackman	119	do.	437	-	-	-	342	58	48	-
850	R.H. Quinn	120	do.	579	29	38	141	372	92	96	229
851	I.W. Rogers	110	do.	521	-	-	-	360	77	75	-
852	Mary Graham	120	do.	29	-	-	-	354	54	40	-
853	Soash School	109	do.	444	35	14	121	317	54	64	143
854	Bill Bass	102	do.	415	-	-	-	342	42	48	-
855	T.J. Conner	92	do.	376	-	-	-	305	38	46	-
856	Ed Lauderdale	128	do.	436	-	-	-	348	54	48	-
857	Mrs. Mary E. Hubner	168	do.	539	12	30	158	378	81	72	153
858	Henry Riley	133	do.	514	-	-	-	342	96	66	-

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
859	R.N. Adams	129	Sept. 2, 1936	672	10	20	32	427	284	116	107
860	Delia S. Wright	118	do.	394	-	-	-	330	42	41	-
861	do.	68	Sept. 3, 1936	485	-	-	-	488	38	20	-
862	Albert Fisher	91	do.	435	43	40	75	366	15	82	269
863	R.A.B. Shortes	93	do.	343	-	-	-	281	a/	72	-
864	H.L. Batton	55	do.	1,030	31	48	286	536	307	94	269
865	P.E. Foster	70	do.	2,989	345	1	775	232	a/	1,680	869
866	W.G. Page	63	do.	331	-	-	-	366	a/	20	-
867	Willis Page	57	do.	628	-	-	-	415	a/	184	-
868	West-Knott School	66	do.	766	42	87	99	892	a/	100	464
869	City of East-Knott	68	do.	959	41	99	186	695	177	114	511
870	J.W. Neil heirs	34	do.	621	-	-	-	647	34	28	-
871	S.C. Gist	50	do.	737	-	-	-	744	69	18	-
872	M.G. Walker	22	do.	393	-	-	-	445	11	8	-
873	M. Gonzales	71	do.	1,676	70	71	438	390	480	425	469
874	S.A. Johnson	44	do.	368	-	-	-	390	15	17	-
875	G.E. Shorter	51	do.	607	-	-	-	549	69	38	-
876	J.T. McCauley	28	do.	684	15	55	189	726	44	24	264
877	E.C. Witt	20	do.	5,959	-	-	-	903	2,150	1,390	-
878	R.B. Cline	71	Sept. 4, 1936	970	-	-	-	586	188	143	-
879	J.H. Hanks	24	do.	1,344	30	43	416	463	307	320	252
880	Viola McGinnis	20	do.	390	-	-	-	445	8	9	-
881	C.A. Burk	22	do.	407	-	-	-	366	37	35	-
882	W.S. Martin	11	do.	182	32	9	29	183	11	11	165
883	J. West	23	do.	197	-	-	-	171	15	23	-
884	Lester Fisher	39	do.	2,597	-	-	-	390	1,490	106	-
885	B.B. Free	47	do.	1,779	170	92	290	366	991	56	802
886	J.A. Peugh	50	do.	1,760	3	35	573	708	653	96	154
887	Lee Cole	57	do.	4,450	-	-	-	433	2,043	768	-
888	J.G. Nickles	69	do.	491	73	57	45	488	42	34	395
889	T.A. Gaskins	60	do.	5,550	-	316	1,470	463	2,362	1,174	1,298
890	Roman Bros.	47	do.	282	-	-	-	110	98	34	-
891	Cliff Talbot	22	do.	932	48	92	183	714	148	110	497
892	P.C. Leatherwood	63	Sept. 9, 1936	1,602	-	-	-	397	376	476	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued

Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Bicarbonate Sulphate Chloride			Total hardness as CaCO ₃ (calculated)	
							Potassium (Na / K) (calculated)	(HCO ₃)	(SO ₄)		(Cl)
893	R.L. Schwerzenbach	74	Sept. 9, 1936	864	-	-	-	317	104	292	-
893a	do.	90	Apr. 1, 1936	1,973	302	146	192	275	384	814	1,353
894	J.W. Curtis	97	Sept. 9, 1936	3,918	632	132	526	159	814	1,625	2,124
895	Mrs. F.B. Blalock	96	do.	323	-	-	-	342	15	14	-
896	Mrs. Dora Roberts	67	do.	2,405	-	-	-	214	526	950	-
897	F.M. Holley	93	do.	338	-	-	-	384	a/	15	-
898	R.B. Cline	70	do.	470	-	-	-	494	19	24	-
899	J.V. Smith	33	do.	2,029	18	47	638	628	653	305	239
900	W.S. Martin	22	do.	5,466	-	-	-	403	3,206	380	-
901	Guitor Estate	31	do.	4,215	-	-	-	519	2,074	545	-
902	E.E. Coughy	33	do.	2,871	-	-	-	159	1,808	136	-
903	J.G. Crawford	26	do.	11,944	573	584	2,680	250	4,493	3,380	3,826
904	W.J. Copeland	32	do.	3,352	-	-	-	146	1,989	265	-
905	H.H. Wilkerson	55	do.	856	112	52	113	250	300	156	492
906	J.M. Bates	32	do.	5,707	-	-	-	159	2,822	1,010	-
907	H.H. Wilkerson	36	do.	6,120	509	594	566	256	3,700	625	3,711
908	P.E. Rust, et al.	72	do.	6,623	558	187	1,460	128	2,861	1,600	2,164
909	Arch. Ford	44	Sept. 10, 1936	2,437	-	-	-	171	1,594	25	-
910	G.M. Long	25	do.	3,041	-	-	-	207	1,613	375	-
911	H.H. Wilkerson	14	do.	5,169	-	-	-	384	2,400	930	-
912	W.H. Abrams, Agent	22	do.	4,867	446	183	862	195	2,611	610	1,866
913	Birl Field	29	do.	4,118	-	-	-	189	2,189	550	-
914	H.H. Wilkerson	16	do.	8,988	-	-	-	342	5,242	820	-
915	Mabel Quinn	10	do.	6,543	578	191	1,300	220	3,165	1,120	2,230
916	J.T. Miller	72	do.	3,199	229	93	766	311	764	1,120	966
917	E.D. Hull	67	do.	403	-	-	-	470	4	8	-
918	Jno. C. Adams	45	do.	1,209	-	-	-	689	250	186	-
919	Guitor Estate	52	do.	562	-	-	-	634	12	16	-
920	J.W. Phillips	53	do.	769	50	100	108	744	77	68	531
921	W.H. Ward	93	do.	546	-	-	-	512	61	25	-
922	J.A. Forrest	79	do.	3,208	267	158	634	220	530	1,400	1,327
923	R.T. Kelley	136	do.	1,848	83	64	505	244	411	665	469
924	B. Leatherwood	89	do.	3,366	-	-	-	183	1,321	860	-
925	B.B. Fox	240	Aug. 14, 1936	261	46	6	53	293	a/	12	142

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Howard County--Continued
 Results are in parts per million.

Well No.	Owner	Depth of well (feet)	Date of collection	Total dissolved solids (calculated)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na / K) (calculated)	Bicarbonate (HCO ₃)	Sulphate (SO ₄)	Chloride (Cl)	Total hardness as CaCO ₃ (calculated)
926	Joe B. Neal	126	Sept. 22, 1936	443	80	11	74	287	58	79	247
927	J.W. Clark	124	June 25, 1936	1,058	-	-	-	281	572	11	-
929	B.B. Fox	94	Aug. 25, 1936	258	62	3	34	201	23	37	167
930	Hardy Morgan	124	do.	277	75	4	30	287	8	19	204
932	B. and J. Fisher	111	Aug. 27, 1936	363	-	-	-	281	31	57	-
936	S.G. Childress	130	Sept. 21, 1936	352	78	8	46	244	42	58	225
937	Mrs. P.A. Ratliff	125	do.	287	-	-	-	232	19	45	-
938	J.B. Hollis	115	Oct. 1, 1936	338	-	-	-	384	a/	15	-
939	A.M. Burns	124	do.	349	41	24	68	153	61	80	153

a/ Sulphate less than 10 parts per million.

