

TEXAS BOARD OF WATER ENGINEERS

C. S. Clark, Chairman
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NACOGDOCHES COUNTY, TEXAS

**PREPARED IN COOPERATION WITH THE UNITED STATES
DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY**

FEBRUARY 1937

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TEXAS

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NACOGDOCHES COUNTY, TEXAS

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

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WORKS PROGRESS ADMINISTRATION

GROUND WATER SURVEY

PROJECT 2074

G. H. Cromack

Project Superintendent

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Analyses made, map prepared, data
assembled and report mimeographed by,
WORKS PROGRESS ADMINISTRATION
PROJECT 6507-5112

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

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Austin, Texas
Feb. 25, 1937

NACOGDOCHES 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 is 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 Planning Board and the State Board of Water Engineers. This release was typed and assembled by typists and draftsmen employed on this project.

The field work in Nacogdoches County was started on July 1, 1936, and completed on November 4, 1936. This project was Project 2074 of District 2 of the Works Progress Administration, Tyler, Texas. G. H. Cromack, a geologist, was project superintendent. Mr. Cromack deserves great credit for his work and for the many extra hours he spent on the project. The Tyler office of the Works Progress Administration made this work possible by their constant help and cooperation.

This release contains the well and spring records and well logs obtained by the project superintendent, logs of the test holes drilled by the W. P. 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 map in the back of the release.

The test wells were drilled by W. P. 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 and springs in Lacogdoches County, Texas
 (All wells are dug unless otherwise indicated in "Remarks" column.)
 (See "Logs of T. P. A. Test Wells" for all records of test wells.)

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
1	20 miles northwest	B. Spencor	--	--	1929	3,400	12	--
2	19 miles northwest	T. C. Lovd	J. D. Weaver	--	1908	35	48	4.1
3	19½ miles northwest	M. Walters	Mrs. John Lucas	--	--	Spring	--	--
d/ 4	18 miles northwest	do.	-- Reeves #1	Palmotto Prod. Co.	--	2,447	--	--
5	18½ miles northwest	do.	Art Cranford	--	1928	30	42	3.0
6	18 miles northwest	do.	T. & N. O. R. R.	--	--	Spring	--	--
7	17 miles northwest	T. Walters	J. P. Furra	J. P. Furra	1924	34	36	3.0
9	16 miles northwest	Jose Maria Musquez	A. J. Mason	--	Old	52	36	3.5
12	15½ miles northwest	Jos. Windsor	Mrs. C. F. Wallace	--	1926	21	30	2.9
14	12½ miles northwest	Jos. Durst	W. D. Baxter	--	1926	25	36	2.9
15	14 miles northwest	Casildo Aquilera	U. Cornelius	U. Cornelius	1931	41	42	3.5
16	14½ miles northwest	do.	B. A. Birdwell	--	1916	43	36	4.5
17	16½ miles northwest	Mrs. W. B. Cabbell	L. S. King	L. S. king	1936	42	36	5.9
18	15 miles northwest	S. Richards	Cariker & Lecky	J. N. Heard	1936	320	6	0
19	14½ miles northwest	do.	L. L. Ivy	--	1934	21	36	3.5
20	do.	Alf. Oliver	Ocie Denney	--	1900	39	36	4.7
21	13½ miles northwest	do.	T. B. Fountain	--	Old	31	36	2.8
23	11½ miles northwest	Hy. Brewer	J. A. Brewer	--	Old	30	36	2.7
24	11 miles northwest	do.	A. Birdwell	--	--	Spring	--	--
25	10½ miles northwest	do.	M. D. Shofner	--	1934	17	36	2.1
26	9½ miles northwest	S. Strode	J. D. Birdwell	--	1912	31	36	2.8
27	10½ miles northwest	do.	Mrs. Nellie Acroy	--	1921	20	36	2.4
29	12 miles northwest	Z. Bennett	Goldsberry & Judkins	W. H. Judkins	1934	23	36	2.3
30	11½ miles northwest	do.	J. H. Crenshaw	--	--	27	52	3.7

a/ Measuring point was usually top of casing, top of pump base, or top of well curb.

b/ T, turbine; A, air-lift; C, cylinder; B, bucket; E, electric; G, gasoline engine; Ng, natural gas; S, steam; W, windmill; H, hand; number indicates horsepower.

Records obtained by G. H. Cromack, Project Superintendent
(Chemical analyses of water from these wells and springs are in the table of analyses.)

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measur- ing point (feet)	Date of measur- ment			
1	Flows	Sep. 12, 1936	None	S	Known as Laneville oil test. In Rusk County. Estimated flow, 10 gallons a minute.
2	30.8	do.	B,H	D	In Rusk County. Brick curb; no casing. Nearly fails in drought. Reported bails dry in 1 hour.
3	Flows	do.	None	S	Estimated flow, 10 gallons a minute. Temperature 66° F.
4	--	--	--	--	See log.
5	29.1	Sep. 4, 1936	B,H	D,S	Wood curb; no casing. Nearly fails in drought. Near northwest corner of Sacul.
6	Flows	Sep. 8, 1936	None	Ind	Estimated flow, 8 gallons a minute from clay. Supplies sawmill and R.R. Near east edge of Sacul.
7	31.2	Sep. 4, 1936	B,H	D,S	Wood curb; no casing. Nearly fails in drought. Reported bails dry in 1 hour.
9	48.3	Sep. 8, 1936	B,H	D,S	Wood curb; no casing. Never fails. Located 2.6 miles southwest of Cushing.
13	17.5	Aug. 27, 1936	B,H	D	Wood curb; no casing. Never fails. Water in clay under 6 inch shell rock. Reported bails dry in 2 hours.
14	23.7	Sep. 3, 1936	B,H	D	Wood curb; no casing. Never fails. Reported bails dry in 3½ hours. Located 3.7 miles south of Cushing.
15	37.9	Sep. 8, 1936	B,H	D,S	Wood curb; no casing. Failed in July, 1936. Dug 7 feet deeper. Reported bails dry in 2½ hours.
16	46.3	do.	B,H	D,S	Wood curb; no casing. Never fails. Water in white sand under rock. Reported bails dry in 4 hours.
17	38.6	Sep. 4, 1936	B,H	D,S	Wood curb; no casing. Water in fine brownish yellow and white sand. Located 1.6 miles west of Cushing.
18	115.0	Sep. 4, 1936 e/	A,G, 20	P	Drilled well. Supplies town of Cushing. 280 feet, 6 inch casing. 40 feet 4½ inch screen. Reported production, 50 gallons a minute. See log.
19	16.2	Aug. 21, 1936	B,H	N	Wood curb; wood casing, top to bottom. Reported unfit for domestic use. Located ½ mile east of Cushing.
20	36.6	Sep. 8, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 5 hours. Water in hard gray sand.
21	27.3	do.	B,H	D,S	Wood curb; wood casing, top to bottom. Never fails. Located 1.2 miles south of Cushing.
23	27.8	do.	B,H	D	Wood curb; no casing. Never fails.
24	Flows	Sep. 1, 1936	None	D,S	Estimated flow: ½ gallon a minute from sand and gravel. Never fails.
25	16.7	Sep. 3, 1936	B,H	D	Brick curb; 10 feet cement casing at top. Never fails. Reported water in sand and gravel.
26	21.6	do.	B,H	D,S	Brick curb; 10 feet brick casing at top. Never fails. Water reported soft.
27	18.9	Sep. 7, 1936	B,H	D	Wood curb; no casing. Nearly fails in drought. Water reported soft.
29	20.8	Sep. 8, 1936	B,H	D	Wood curb; no casing. Never fails. Reported rock bottom.
30	24.6	Aug. 21, 1936	B,H	D,S	Brick curb; brick casing, top to bottom. Nearly fails in drought. Reported bails dry in 1½ hours.

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

b/ No water sample collected for analysis.

a/ Water level reported.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of wall (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
31	13 miles northwest	Z. Bennett	A. M. McMillan	--	1890	25	36	3.9
33	14 $\frac{1}{2}$ miles northwest	J. Weeks	J. F. Ivy	--	1932	50	36	2.8
34	15 miles northwest	H. Frazier	Ernie Owens	--	1932	25	36	4.0
35	11 $\frac{1}{2}$ miles north	Luis Sanches	A. A. Acrey	A. A. Acrey	1899	25	36	3.4
36	11 miles northwest	do.	S. H. Watkins	--	--	Spring	--	--
37	do.	do.	do.	--	1906	37	40	3.2
39	10 $\frac{1}{2}$ miles northwest	do.	T. V. Blackburn	--	1906	31	42	3.1
d/ 41	9 $\frac{1}{2}$ miles northwest	Wm. A. Lumpkin	A. Whitaker	Caro Syndicate	--	3,372	--	--
42	9 miles northwest	do.	W. W. Sitton	--	1930	28	36	2.8
45	7 miles north	Hy. Bailey	C. B. Watkins	--	1901	25	36	4.7
46	do.	do.	Mrs. J. F. Hardy	--	1930	28	36	2.9
48	8 miles north	Jno. Janey	Tom Crossland	--	Old	23	42	2.0
49	7 $\frac{1}{2}$ miles north	do.	S. Stanton	S. Stanton	1916	24	36	4.1
50	8 $\frac{1}{2}$ miles north	Jno. Bailey	Wilmer Scroggins	Wilmer Scroggins	1931	27	36	2.9
51	9 miles north	O. W. Randall	Mrs. M. E. Reider	J. W. Randall	1931	20	36	3.0
52	10 miles north	do.	G. R. Solomon	--	1911	19	42	3.4
54	10 $\frac{1}{2}$ miles north	Mariana Sanches	M. I. Stephens	M. I. Stephens	Old	34	48	3.2
55	11 $\frac{1}{2}$ miles north	do.	Luke Moore	--	1900	26	30	3.0
56	13 miles north	L. Vaught	R. E. Muller	--	--	Spring	--	--
57	do.	J. N. Bell	Mrs. P. J. Coates	E. C. Coates	--	44	30	2.5
59	13 $\frac{1}{2}$ miles north	Thos. Woods	H. T. Lunsford	--	Old	51	36	3.2
60	12 $\frac{1}{2}$ miles north	W. H. Biggs	Bellevue School	--	--	Spring	--	--
61	10 miles north	J. E. Peters	John Bailey	--	--	73	36	2.6
62	do.	W. A. Hogan	J. H. Summers	J. H. Summers	1932	35	42	2.4
63	10 $\frac{1}{2}$ miles north	Wm. C. Walker	J. G. Fredrick	J. G. Fredrick	1925	48	28	2.7
64	9 $\frac{1}{2}$ miles north	A. Yancy	Roy Grey	--	1934	23	42	2.4
66	10 miles northeast	David Sanches	State Highway	--	--	Spring	--	--

G. H. Cromack, Project Superintendent

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point	Date of measurement			
31	(feet) 24.8	Aug. 21, 1936	B,H	D	Wood curb; no casing. Weak Supply. Reported bails dry in few minutes.
33	47.2	Sep. 4, 1936	B,H	D,S	Brick curb; no casing. Never fails. Reported water in white sand.
34	23.5	do.	B,H	D,S	Wood curb; no casing. Nearly fails in drought. Water red from iron.
35	22.3	Aug. 21, 1936	B,H	D,S	Wood curb; 16 feet plank casing at bottom. Never fails. Reported bails dry in 2 hours.
36	Flows	do.	None	N	Estimated flow, 1 gallon a minute from sand. Never fails.
37	33.8	Aug. 20, 1936	B,H	D,S	Wood curb; no casing. Failed in 1918 and 1925. Reported bails dry in 5 hours.
39	21.3	Aug. 21, 1936	B,H	D,S	Cement curb; 10 feet cement casing at top. Never fails. Reported bails dry in 6 hours.
41	--	--	None	N	Oil test. See log.
43	17.6	Sep. 7, 1936	B,H	D	Rock curb; rock casing, top to bottom. Never fails. Reported soft water.
45	21.4	do.	B,H	D	Cement curb; no casing. Reported nearly fails in drought. Reported water in black sand and clay with
46	20.2	Aug. 28, 1936	B,H	D,S	Wood curb; no casing. Never fails. pyrite crystals. Reported bails dry in 3 hours.
48	18.9	do.	B,H	D	Wood curb; rock and brick casing, top to bottom. Never fails. Reported water hard with sour taste.
49	17.7	Aug. 31, 1936	B,H	D,S	Brick curb; brick casing, top to bottom. Nearly fails in drought. Water reported in white clay.
50	21.7	do.	B,H	D,S	Wood curb; 6 feet wood casing at top. Never fails. Reported hard water with mineral taste.
51	16.8	do.	B,H	S	Wood curb; no casing. Never fails. Reported hard water with sour taste, unfit for drinking.
52	15.8	Aug. 29, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 2 hours. Reported water in red sandrock under 2-
54	31.2	do.	B,H	D	Wood curb; 8 feet rock cas- ing at top. Nearly fails in drought. inch layer of iron rock.
55	22.2	Aug. 21, 1936	B,H	D,S	Wood curb; 16 feet plank casing at bottom. Never fails. Reported water in hard gravel and sand.
56	Flows	do.	None	D,S	Estimated flow, 1 gallon a minute from sand. Never fails.
57	42.5	Aug. 29, 1936	B,H	D	Wood curb; 6 feet wood casing at bottom. Nearly fails in drought. Water in white sand.
59	40.5	Oct. 5, 1936	B,H	D,S	Wood curb; 10 feet brick casing at top. Never fails. Water reported soft.
60	Flows	Oct. 6, 1936	None	P	Estimated flow, 3 $\frac{1}{2}$ gallons from 2 openings in sand. Never fails. Supplies country school.
61	70.0	Aug. 29, 1936	B,H	D,S	Wood curb; 8 feet brick casing at top. Nearly fails in drought.
62	34.6	Oct. 6, 1936	B,H	D,S	Wood curb; 6 feet wood casing at bottom. Never fails. Water reported soft.
63	43.8	do.	B,H	D	Wood curb; cement casing, top to bottom. Nearly failed in 1935. Reported bails dry in 1 hour.
64	22.6	do.	B,H	D,S	Wood curb; 4 feet wood casing at bottom. Fails in drought. Reported bails dry in $\frac{1}{2}$ hour.
66	Flows	Oct. 5, 1936	None	P	Estimated flow, 2 gallons a minute. Improved roadside drinking fountain. Never fails. Temperature

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
67	10 miles northeast	David Sanches	D. W. Scroggins	--	1912	36	36	2.7
68	do.	do.	J. L. Scroggins	D. S. Handcock	1924	47	36	2.8
69	11 miles northeast	M. D. Castro	W. R. Kirk	W. R. Kirk	1934	32	36	2.5
70	12 $\frac{1}{2}$ miles northeast	Wm. Hays	A. M. Foshee	--	Old	27	36	2.7
71	13 $\frac{1}{2}$ miles northeast	Alex Parks	W. C. Lee	--	1890	19	42	3.1
72	do.	Juan J. Acosta	J. L. Williams	--	1921	34	36	3.1
73	15 miles northeast	do.	T. J. Williams	--	Old	19	42	2.5
75	do.	F. Keller	-- Tinkle	--	--	Spring	--	--
76	15 $\frac{1}{2}$ miles northeast	do.	Ed. Weatherly	--	Old	25	48	1.9
77	17 miles northeast	H. Graham	H. C. Moore	--	1912	63	42	3.4
78	15 miles northeast	H. M. Watkins	J. A. Nix	--	--	Spring	--	--
79	13 miles northeast	J. W. Anderson	Mary D. Weatherly	--	--	Spring	--	--
80	do.	do.	do.	Nettie Weatherly	1931	27	36	2.3
81	15 $\frac{1}{2}$ miles northeast	Jno. Norris	H. E. Irving	--	1906	28	42	2.8
82	15 miles northeast	E. Manor	C. C. Lowrance	--	1926	19	42	3.2
83	13 miles northeast	J. H. Hyde	Wanders School	--	1920	33	48	1.8
84	11 $\frac{1}{2}$ miles northeast	R.A. Jordan	Z. Rambin	--	Old	24	36	3.2
85	12 $\frac{1}{2}$ miles northeast	Jose De Los Santos Coy	A. Burt, heirs	--	1886	41	48	3.1
86	14 miles northeast	do.	Oscar Harris	--	1928	26	48	2.7
87	13 $\frac{1}{2}$ miles northeast	W. Hill	Gus Young	--	1929	30	48	2.6
88	12 $\frac{1}{2}$ miles northeast	Jas. Bell	J. W. Burt	--	1902	62	36	2.9
89	10 $\frac{1}{2}$ miles northeast	G. Simpson	I. Caldwell	--	1935	32	36	3.2
90	do.	J. Cooper	Mrs. G. B. Stoker	--	Old	63	48	3.1
a/ 89	10 miles east	Richard Nelson	Texas Co.	Producers Oil Co.	--	2,000	--	--
93	12 $\frac{1}{2}$ miles east	G. Luna	Moss Adams	--	--	Spring	--	--
94	do.	Hrs. of Jose Flores	J. D. Martin	--	1906	74	36	3.6
95	13 $\frac{1}{2}$ miles east	do.	W. F. Martin	--	1930	24	36	3.0

J. E. Cromack, Project Superintendent

No.	Water Level		Pump and power <u>b/</u>	Use of water <u>c/</u>	Remarks
	Depth below measuring point (feet)	Date of measurement			
67	33.0	Oct. 8, 1936	B,H	D,S	Wood curb; 4 feet wood casing at bottom. Never fails. Reported water in gray sand.
68	45.9	do.	B,H	D,S	Wood curb; wood casing from 16 to 28 feet. Never fails. Reported bails dry in 1 hour.
69	30.5	do.	B,H	D,S	Wood curb; 2 feet rock casing at bottom. Never fails. Reported bails dry in 1 hour. Water in white sand.
70	25.1	do.	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 3 hours. Water in red sand.
71	16.4	Oct. 5, 1936	B,H	D,S	Cement curb; brick casing, top to bottom. Nearly fails in drought. Water above lignite bed.
72	33.5	do.	B,H	D	Wood curb; no casing. Fails in drought. Water in black clay. Reported mineral taste.
73	12.4	do.	B,H	D,S	Brick curb; 12 feet brick casing at top. Never fails. Water in clay. Reported soft.
75	Flows	Oct. 6, 1936	None	P	Measured flow, 1 gallon a minute. Red color; not turbid. Used locally as mineral water. Never fails.
76	17.2	do.	B,H	D,S	Cement curb; no casing. Never fails. Reported mineral taste. Located in Garrison. Temperature 120° F.
77	35.9	do.	B,H	D,S	Cement curb; brick casing, top to bottom. Never fails. Reported mineral taste.
78	Flows	Oct. 12, 1936	None	D,S	Estimated flow, 1 gallon a minute from clay. Never fails.
79	Flows	Sep. 30, 1936	None	D,S	Estimated flow, 2 gallons a minute from 2 openings in sand. Never fails. Slightly turbid.
80	23.1	do.	B,H	D	Cement curb; brick casing, top to bottom. Fails in drought. Water in gray quicksand. Turbid.
81	23.9	Oct. 9, 1936	B,H	D,S	Wood curb; 7½ feet wood casing at top. Never fails. Water reported in clay.
82	18.0	do.	B,H	D,S	Wood curb; 9 feet cement casing at top. Nearly failed in 1936. Reported bails dry in ½ hour. Water in gray sand.
83	32.6	Oct. 12, 1936	C,H	D,P	Brick curb; brick casing, top to bottom. Nearly fails in drought. Water in gray quicksand.
84	21.6	Oct. 8, 1936	B,H	D,S	Wood curb; no casing. Never fails. Water reported soft.
85	33.7	Oct. 12, 1936	B,H	D,S	Wood curb; no casing. Never fails. Cannot be bailed dry by hand.
86	24.4	Oct. 9, 1936	B,H	D,S	Wood curb; no casing. Nearly fails in summer. Reported mineral taste.
87	29.4	do.	B,H	D,S	Cement curb; 18 feet brick casing at top. Fails in summer. Reported bails dry in ½ hour.
88	59.4	Sep. 26, 1936	B,H	D,S	Wood curb; wood casing, top to bottom. Never fails. Reported bails dry in 3 hours.
89	31.2	do.	B,H	D,S	Wood curb; wood casing, top to bottom. Never fails. Reported bails dry in 2 hours. Water in white sand.
90	60.6	Oct. 12, 1936	B,H	D,S	Brick curb; 4 feet brick casing at top. Never fails. Reported bails dry in 1½ hours.
92	--	--	None	N	See log.
93	Flows	Oct. 8, 1936	None	D	Estimated flow: 1 gallon a minute from sandy clay. Never fails.
94	71.5	Sep. 26, 1936	B,H	D	Wood curb; brick casing, top to bottom. Never fails. Reported bails dry in 2 hours. Water in white sand.
95	21.6	Sep. 14, 1936	B,H	D	Wood curb; no casing. Never fails. Water reported soft.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
96	14 miles east	Hrs. of Jose Flores	F. F. Fuller	--	1890	27	36	3.1
97	11 $\frac{1}{2}$ miles east	do.	Henry Ennis	--	1904	20	36	3.0
98	10 $\frac{1}{2}$ miles east	do.	Mrs. W. B. Turner	--	1926	27	36	3.0
101	7 $\frac{1}{2}$ miles east	Jessie Walling	H. T. Halton	--	1928	17	42	1.8
103	4 $\frac{1}{4}$ miles east	John Reid	Jim Powers	--	1902	23	42	2.5
108	8 $\frac{1}{2}$ miles northeast	B. Patton	C. P. Barr	--	Old	23	36	5.0
109	8 miles northeast	F. Garcia	O. D. Kerr	O. D. Kerr	1927	21	36	3.4
110	6 $\frac{1}{2}$ miles northeast	Albert Emanuel	Mrs. J. S. Troutman	--	1913	560 $\frac{1}{2}$	5- 3/16	--
111	do.	do.	Mollie A. Troutman	--	1933	23	36	3.0
113	6 miles north	do.	T. E. Hill	T. H. Hill	1903	26	36	2.5
114	5 $\frac{1}{2}$ miles northeast	J. Cordova & Bros.	Ed. Greer	--	--	22	36	2.0
116	3 $\frac{1}{2}$ miles northeast	A. Emanuel	A. E. Reed	--	Old	33	30	2.3
118	do.	J. Henson	Tilda Parker	--	1933	42	42	1.6
120	In Nacogdoches	--	Southern Ice Co.	--	1925	500	12 $\frac{1}{2}$	5.4
121	$\frac{1}{2}$ mile north	C. S. Taylor	City of Nacogdoches #7	Layne-Texas Co.	1933	494	20	--
122	do.	do.	City of Nacogdoches #6	do.	1929	485	20	0
125	1 $\frac{1}{2}$ miles northwest	S. Moreland	G. E. Norwood	--	1896	32	36	1.3
127	2 $\frac{3}{4}$ miles north	P. S. Padillo	J. Thomas Hall	Lester Gett	1914	2,007	4	2.5
128	3 miles north	Hiram Richey	R. L. Whitmire	--	1912	34	48	5.9
131	6 $\frac{1}{2}$ miles north	H. M. Bailey	Mary Hickenbottom	--	Old	27	48	2.8
132	4 $\frac{1}{2}$ miles north	E. Garrett	M. H. Dennard	M. H. Dennard	1936	46	36	2.0
134	6 miles north	John Kirby	W. J. Parmley	--	1931	30	30	2.4
135	7 miles northwest	do.	Will Murphy	Will Murphy	1885	21	36	5.3
137	5 miles northwest	W. J. Ladd	O. D. Ammons	--	1895	35	36	5.6

G. E. Cronack, Project Superintendent

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measur- ing point (feet)	Date of measure- ment			
96	22.3	Sep. 26, 1936	B,H	D,S	Wood curb; wood casing at top. Never fails. Reported bails dry in 1 hour. Water in black sandy silt.
97	15.8	Sep. 14, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 3 hours. Water in red clay.
98	17.4	do.	B,H	D,S	Cement curb; brick casing, top to bottom. Never fails. Water reported soft.
101	15.2	Oct. 12, 1936	B,H	D,S	Cement curb; no casing. Nearly fails in summer. Water reported slightly hard.
106	22.7	do.	B,H	S	Wood curb; 14 feet brick casing at top. Nearly fails in drought. Reported unfit for drinking.
108	16.1	Oct. 9, 1936	B,H	D	Wood curb; no casing. Never fails. Water reported soft.
109	19.7	Oct. 8, 1936	B,H	D	Wood curb; brick casing, top to bottom. Fails in drought. Reported bails dry in $\frac{1}{2}$ hour.
110	--	--	C,E,-	P	Drilled well. 5-3/16 casing, top to bottom. 4 inch tubing. Pumps 40 gallons a minute. Supplies town of
111	14.3	Oct. 31, 1936	B,H	D,S	Brick curb; brick casing, top to bottom. [Appleby. Just completed. Mineral taste reported.
113	17.5	do.	B,H	D,S	Brick curb; brick casing, top to bottom. Reported bails dry in 4 hours. Water in gray sand.
114	19.1	Sep. 1, 1936	B,H	D,S	Brick curb; no casing. Nearly fails in summer. Reported bails dry in $\frac{1}{2}$ hour.
116	32.8	do.	B,H	D,S	Brick curb; 8 feet brick casing at top. Well needs cleaning out. Water in white sand.
118	41.5	do.	B,H	D	Wood curb; no casing. Never fails. Reported bails dry in 2 hours. Water reported soft.
120	7.4	Sep. 17, 1936	Cf,E, 2	Ind	Cf, centrifugal pump. Drilled well. Formerly flowed 30 gallons a minute. Pumping level, 4 feet. Production 30 gallons a minute. Temperature 72° F. See
121	--	--	T,E, 30	P	Drilled well. Reported production, 700 gallons a minute. Partially supplies city. Temperature 75° F. See log.
122	30.0	--, 1933 e/	T,E, 30	P	Drilled well. Pumping level reported, 80 feet, producing 700 gallons a minute. Reported pump set between 90 and 100 feet. Temperature 74 $\frac{1}{2}$ ° F. See Log.
125	26.7	Aug. 19, 1936	C,W	D,S	Brick curb; 4 feet brick casing at top. 12 feet brick casing at bottom. Never fails. Reported cannot bail dry.
127	90.0	Sep. 18, 1936 e/	A,Ng, 20	D,S	Drilled well. 1400 feet 4 inch casing. 300 feet 2 $\frac{1}{2}$ inch tubing. Water sand reported 540 feet. Shot 4 inch at 540 feet. Reported production, 200 gallons
128	27.1	Aug. 28, 1936	B,H	D	Wood curb; 3 feet brick casing at top. [a minute. Never fails. Reported bails dry in 3 hours.
131	21.7	Aug. 31, 1936	B,H	D	Log curb; no casing. Never fails. Reported unfit for drinking.
132	43.6	Aug. 28, 1936	B,H	D	Wood curb; brick casing, top to bottom. Reported bails dry in 1 $\frac{1}{2}$ hours.
134	27.8	Sep. 7, 1936	B,H	D	Cement curb; no casing. Nearly fails in summer. Reported bails dry in 2 hours.
135	17.4	Aug. 19, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 4 hours.
137	25.6	do.	B,H	D	Brick curb; no casing. Never fails. Cannot be bailed dry. Water reported hard.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
140	3 $\frac{1}{4}$ miles northwest	W. Dankworth	B. Danforth	Roy Fleniken	1936	22	42	3.0
142	2 $\frac{1}{2}$ miles west	H. Sibley	J. W. Christian	J. W. Christian	1891	42	48	3.5
144	4 $\frac{1}{2}$ miles west	G. Pollett	Mrs. S. E. Stone	--	1911	42	36	3.0
145	do.	Manuel De Los Santos Coy	Sam Hayter	--	Old	19	36	2.6
146	4 $\frac{3}{4}$ miles northwest	L. M. Hyde	Mrs. J. C. Miles	--	--	39	42	2.9
147	do.	do.	W. R. Birdwell	--	1906	41	36	2.8
148	6 miles northwest	do.	W. E. Ballard	--	Old	36	36	4.0
149	7 $\frac{1}{2}$ miles northwest	Manuel De Los Santos Coy	J. B. Burk	--	1882	36	42	7.0
150	8 $\frac{1}{2}$ miles northwest	do.	C. Whitton	--	1900	36	36	6.5
151	do.	do.	E. S. Bradshaw	E. S. Bradshaw	1921	37	36	3.4
152	9 miles northwest	do.	Loy heirs	--	1835	52	36	3.4
153	8 miles northwest	do.	T. A. Crisp	--	1913	25	36	3.2
155	6 miles northwest	do.	Sam Hayter	--	Old	27	30	3.0
156	7 miles northwest	do.	Pearl Oil Co.	J. C. McNeil	1930	4,314	10	--
158	9 $\frac{1}{2}$ miles west	Michael Sacco	Wm. Scott	Wm. Scott	1926	21	36	2.9
159	11 miles west	David Cook	Texas Pipe Line Co.	W. M. Brown & Co.	1934	525	6	1.0
160	10 $\frac{1}{2}$ miles west	Michael Sacco	E. H. Croft	E. H. Croft	1929	17	36	2.6
161	12 miles northwest	do.	J. A. Tindally	J. A. Tindally	1927	25	36	6.0
162	10 $\frac{1}{3}$ miles northwest	Juan Tobar	H. W. McCuistian	--	1934	28	36	2.3
163	11 miles northwest	do.	Loy heirs	--	Old	42	36	3.8
164	11 $\frac{1}{2}$ miles northwest	Jos. Durst	M. F. Whitaker	M. F. Whitaker	1912	54	36	5.4
165	12 $\frac{1}{2}$ miles northwest	do.	Wm. T. Free	--	Old	37	36	3.1
166	13 $\frac{1}{2}$ miles northwest	John Skelton	Johnny Bradshaw	--	Old	51	42	3.9
167	12 miles west	do.	B. K. King	B. K. King	1933	35	36	2.2
168	13 miles west	do.	C. E. Grimes	C. E. Grimes	1929	23	36	3.0
169	14 $\frac{1}{2}$ miles northwest	J. Campbell	L. S. Wallace	--	1910	43	36	4.1

G. H. Cromack, Project Superintendent

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measur- ing point	Date of measure- ment			
140	(feet) 21.0	Aug. 19, 1936	B,H	D	Wood curb; no casing. Weak supply. Reported bails dry in $\frac{1}{2}$ hour. Water in hard brown sand.
142	39.8	Aug. 25, 1936	B,H	D,S	Brick curb; 6 feet brick casing at top. Never fails. Reported bails dry in $1\frac{1}{2}$ hours. Water in red sandy clay.
144	41.5	Sep. 18, 1936	B,H	D,S	Wood curb; wood casing, top to bottom. Never fails. Reported bails dry in 2 hours. Water in white sand.
145	15.2	Aug. 25, 1936	B,H	D,S	Cement curb; rock casing, top to bottom. Never fails. Water reported soft.
146	36.7	Sep. 1, 1936	B,H	D	Wood curb; no casing. Never fails. Reported bails dry in 1 hour. Water in red clay.
147	37.4	do.	B,H	D	Brick curb; no casing. Nearly fails in summer. Water reported in black dirt overlying solid rock.
148	21.6	Sep. 2, 1936	B,H	S	Cement curb; no casing. Never fails. Reported mir- eral taste. Unfit for drinking.
149	31.9	Sep. 7, 1936	B,H	D	Wood curb; brick casing, top to bottom. Never fails. Reported bails dry in 2 hours.
150	31.2	Sep. 2, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 3 hours. Water in white sand.
151	33.5	do.	B,H	D,S	Brick curb; no casing. Never fails. Water reported hard.
152	51.1	do.	B,H	D,S	Brick curb; no casing. Nearly fails in drought. Water reported soft.
153	17.9	do.	B,H	D,S	Wood curb; 6 feet wood casing at top. Never fails. Water reported soft.
155	26.1	Aug. 25, 1936	B,H	D	Cement curb; cement casing, top to bottom. Never fails. Water reported slightly sour.
156	Flows	Aug. 2, 1934	None	I	Oil test. Sam Hayter farm. 400 feet of 10 inch cas- ing. Reported flows 35 gallons a minute with sulphur odor and taste. See log.
158	17.5	Aug. 25, 1936	B,H	D,S	Wood curb; 7 feet brick cas- ing at top. Never fails. Reported bails dry in 3 hours.
159	34.0	Oct. 13, 1936 e/	C,E,B	D,Ind	Drilled well. A. P. Hall farm. Furnishes camp and pump station. Reported pumping level 39 feet produc- ing 12 gallons a minute. Reported soft with sulphur taste. See log.
160	14.1	Aug. 25, 1936	B,H	D	Wood curb; 6 feet wood casing at top. Reported near- ly fails in summer. Water in red and gray chalky clay.
161	20.9	Aug. 27, 1936	B,H	D	Wood curb; no casing. Never fails. Reported slight- ly sour taste in summer. Water in white sand.
162	18.4	Aug. 28, 1936	B,H	D,S	Wood curb; no casing. Fails in drought. Reported hard with alum taste. Unfit for drinking.
163	22.1	Sep. 3, 1936	B,H	D	Brick curb; brick casing, top to bottom. Never fails. Reported hard with mineral taste. Water under hard rock.
164	24.2	Aug. 28, 1936	B,H	D	Wood curb; no casing. Never fails. Water reported soft. Water in black sand.
165	29.6	Aug. 27, 1936	B,H	D	Wood curb; no casing. Fails in summer. Water in black sand. Reported hard.
166	37.1	do.	B,H	S	Rock curb; no casing. Fails in summer. Water in black dirt under 6 inch sand rock. Reported hard with sour taste.
167	30.3	Aug. 26, 1936	B,H	D,S	Brick curb; no casing. Never fails. Reported soft water. Water in white sand.
168	14.2	do.	B,H	D	Wood curb; no casing. Never fails. Water in black sand, reported soft with sour taste. Reported bails dry in 3 hours.
169	30.2	do.	B,H	D	Wood curb; no casing. Never fails. Reported bails dry in 1 hour. Water in red and white clay.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
170	14 miles northwest	E. Russell	A. L. Self	A. L. Self	1933	27	42	2.5
171	13½ miles west	John Durst	L. R. Tucker	--	Old	28	36	5.0
172	14½ miles west	do.	C. Watkins	--	Old	28	36	3.0
173	12 miles west	do.	W. R. Barnett	--	Old	31	48	3.5
174	13 miles west	do.	J. N. Craft	--	1926	34	36	2.0
175	12 miles west	do.	W. H. Butler	--	Old	31	42	2.9
176	13 miles west	do.	B. G. Kelly	--	Old	22	36	2.8
177	12 miles west	do.	L. A. Legg	--	1905	29	36	6.3
178	do.	do.	Shell Pipe Line Co.	--	--	--	5- 3/16	0
179	11½ miles west	do.	Sam Stripling	--	Old	26	36	3.0
181	10 miles west	D. Cook	I. C. Ferguson	--	1925	20	36	2.0
182	do.	J. L. Ewing	Homer Richards	--	--	27	36	2.0
184	do.	do.	R. E. Tindall	--	1927	20	36	4.1
185	do.	Ant. Sanches	E. H. Johnson	--	1932	55	36	3.5
187	8 miles west	do.	B. L. Johnson	--	Old	25	42	3.0
191	7½ miles southwest	J. M. Esparza	B. M. Matlock	--	1922	44	36	2.8
194	4 miles west	J. L. Pettijohn	R. V. Davidson	--	Old	24	30	3.0
195	2 miles west	Jose Luis De La Bega	G. W. Tillory	--	--	Spring	--	--
198	2 miles southwest	J. Hilbert	Country Club	--	1922	550	4	0
199	3½ miles southwest	J. S. Thorn	Hilliard Stone	--	Old	32	36	2.0
203	1 mile south	Jose Luis De La Bega	Norval Bright	Gaston Bright	1935	15	36	3.0
204	1¼ miles south	do.	W. I. Baker	--	--	Spring	--	--
d/205	1 mile south	do.	J. B. Fenley	Layne-Texas Co.	1933	536	6	--
206	½ mile south	In Nacogdoches	Yuba Oil & Ref. Co.	--	--	--	12	--
207	¾ mile south	E. Thorn	Frost Lumber Industries	--	1906	375½	4	0
217	4½ miles southeast	Nepomuceno	J. Boozer	--	--	Spring	--	--

G. H. Cromack, Project Superintendent

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (feet)	Date of measurement			
170	19.4	Aug. 26, 1936	B,H	S	Wood curb; no casing. Never fails. Water in bluish green sand. Reported hard with sour taste and bails dry in 2½ hours.
171	17.8	do.	B,H	D	Wood curb; brick casing, top to bottom. Never fails. Reported bails dry in 3 hours. Water in white sand.
172	27.3	Sep. 25, 1936	B,H	D,S	Wood curb; wood casing, top to bottom. Never fails. Reported bails dry in 3 hours. Water in white sand.
173	26.9	do.	B,H	D,S	Wood curb; wood casing at top. Never fails. Reported bails dry in 4 hours. Water in white sand.
174	32.5	Sep. 23, 1936	B,H	D,S	Wood curb; 8 feet brick casing at top. Never fails. Reported bails dry in 3 hours. Water in red gravel.
175	26.5	do.	B,H	D	Cement curb; no casing. Never fails. Reported bails dry in 4 hours. Water in bluish green sand.
176	19.9	do.	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 1 hour. Water in red gravel.
177	26.6	Sep. 22, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 1 hour. Water in white sand.
178	--	--	G,E,2	D,Ind	Drilled well. B. Legg farm. 3-3/16 inch casing. 125 feet galvanized tubing. Supplies camp and pump station. Pumps 4 gallons a minute. Temperature 74°
179	24.7	Sep. 24, 1936	B,H	D	Wood curb; wood casing, top to bottom. Never fails. Reported bails dry in 1 hour. Water in white sand.
181	17.7	S p. 22, 1936	B,H	D,S	Brick curb; brick casing, top to bottom. Cannot be bailed dry. Rock in bottom. Water reported soft.
182	25.5	do.	B,H	D,S	Wood curb; no casing. Reported slightly hard. Water in red gravel.
184	14.2	Sep. 24, 1936	B,H	D	Wood curb; wood casing at top. Cannot be bailed dry. Reported soft. Water in white sand.
185	52.8	do.	B,H	D,S	Wood curb; 6 feet wood casing at top. Never fails. Reported bails dry in 2 hours. Water in red gravel.
187	18.2	Sep. 22, 1936	E,H	D,S	Wood curb; wood casing, top to bottom. Never fails. Reported bails dry in 5 hours. Water reported soft.
191	42.8	Sep. 23, 1936	B,H	D,S	Wood curb; 6 feet wood casing at top. Never fails. Reported bails dry in 2 hours. Water in red gravel.
194	22.9	Sep. 18, 1936	B,H	D	Wood curb; 6 feet wood casing at bottom. Reported bails dry in 2 hours. Reported water hard.
195	Flows	Aug. 20, 1936	None	S	Estimated flow; 12 gallons a minute from sand and gravel.
198	Flows	Sep. 17, 1936	A,G,-	Ind	Drilled well. Flows 15 gallons a minute. Pumped to supply swimming pool and golf greens. Temperature
199	27.1	Sep. 16, 1936	B,H	D	Brick curb; 6 feet tile casing at bottom. Never fails. Reported bails dry in 1½ hours. 76° F.
203	12.1	do.	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 2 hours. Water in red sandy clay under 8 inch
204	Flows	Sep. 22, 1936	None	D	Estimated flow, 1 gallon a minute from fractured rock. Temperature 74° F.
205	--	--	T,E,-	Ind	Drilled well. Supplies swimming pool at Reed's Lake in Nacogdoches. See log.
206	Flows	Sep. 17, 1936	None	Ind	Drilled well. Supplies refinery. Unused at present. Flows 13½ gallons a minute. Temperature 74° F.
207	0	Sep. 18, 1936	A,S,-	Ind	Drilled well. Supplies sawmill. Reported pumping level 20-30 feet jetting 40 gallons a minute. Temperature
217	Flows	Oct. 30, 1936	None	D,S	Estimated flow, 1 gallon a minute from sand. Never fails. Temperature 74° F.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
219	4 miles south	Nepomuceno	Hy. Hoya	--	--	Spring	--	--
226	5 miles east	Vital Flores	H. E. Seale	R. A. Morris	1935	18	36	2.0
228	7 $\frac{1}{2}$ miles east	Jose Cordova & Bros.	Mrs. Ernest Pleasant	--	Old	21	42	2.9
230	do.	Pedro Procella	A. P. Thompson	--	1920	22	36	3.2
d/232	10 miles east	Jose Maria Moria	E. A. Day	Lubricating Oil Co.	--	352	--	--
234	do.	do.	Guy Mast	--	1920	26	36	4.5
236	11 miles east	Hrs. of Jose Flores	Lee West	--	Old	26	36	3.5
237	10 $\frac{1}{2}$ miles east	T. J. Johnson	J. W. Kendrick	J. W. Kendrick	1911	32	36	3.1
238	11 $\frac{1}{2}$ miles southeast	Ant. Chireno	J. B. Brown	--	1896	31	36	3.4
240	12 miles east	J. H. Muckelroy	J. T. Hana	--	Old	32	36	2.6
241	14 miles east	Jose Ignacio Ybarbo	O. O. Smith	--	1925	17	36	3.0
242	15 miles east	do.	Ancle Fuller	--	Old	23	40	3.3
244	17 $\frac{1}{2}$ miles east	J. Walling	J. W. Burd	--	Old	47	36	5.2
245	do.	Unnamed	J. C. King	--	Old	27	48	3.2
246	17 miles east	Jose Ignacio Ybarbo & Bros.	J. E. Ennis	Thompson Bros.	1905	80 $\frac{1}{2}$	6	3.0
247	do.	Jose Antonio Chrino	E. M. Weeks	--	1872	37	36	3.2
d/248	do.	do.	J. H. Cronkrite Est.	Darwin Bonodum	1931	5,483	--	--
249	20 $\frac{1}{2}$ miles east	--	Whitton heirs	Thompson Bros.	1929	2,822	10	0
250	do.	--	do.	do.	1906	2,200	10	0
251	do.	--	do.	--	--	Spring	--	--
257	18 $\frac{1}{2}$ miles southeast	Jose Antonio Chrino	Bennie Gray	--	Old	24	48	2.5
258	19 miles southeast	do.	R. G. Atkins	--	1923	20	30	4.1
259	16 miles southeast	do.	J. W. Prince	--	1916	200 $\frac{1}{2}$	6	3.0
260	15 miles east	do.	R. C. Duke	R. C. Duke	1926	20	36	3.0

G. H. Cromack, Project Superintendent

N.	Water Level		Pump and Power b/	Use of water c/	Remarks
	Depth below measuring point (feet)	Date of measurement			
219	Flows	Oct. 31, 1936	None	D	Estimated flow, $\frac{1}{2}$ gallon a minute from sand. Never fails.
226	10.3	Sep. 14, 1936	B,H	D	Brick curb; brick casing, top to bottom. Never fails. Rock in bottom.
228	17.3	Oct. 13, 1936	B,H	D,S	Brick curb; brick casing, top to bottom. Cannot be bailed dry. Water in green sand.
230	14.3	Sep. 29, 1936	B,H	D,S	Wood curb; wood casing at top. Fails in drought. Reported bails dry in 2 hours. Blue rock in bottom.
232	--	--	None	N	Oil test. See log.
234	18.8	Sep. 28, 1936	B,H	D	Wood curb; $4\frac{1}{2}$ feet wood casing at top. Cannot be bailed dry. Water in fractured rock.
236	24.4	Oct. 13, 1936	B,H	D,S	Wood curb; no casing. Never fails. Water reported soft.
237	25.2	Sep. 28, 1936	B,H	D,S	Wood curb; 5 feet wood casing at top. Never fails. Reported bails dry in 6 hours. Water in red rock.
238	16.4	do.	B,H	D	Cement curb; cement casing at top. Fails in drought. Reported bails dry in 3 days. Water in blue rock.
240	28.3	Oct. 13, 1936	B,H	D	Wood curb; 6 feet brick casing at bottom. Never fails. Water in clay.
241	13.6	Sep. 25, 1936	B,H	D,S	Rock curb; rock casing, top to bottom. Never fails. Reported bails dry in 1 hour.
242	20.1	Sep. 26, 1936	B,H	D,S	Wood curb; wood casing at top. Never fails. Reported bails dry in 1 hour.
244	45.1	Sep. 25, 1936	B,H	D,S	Wood curb; wood casing at top. Never fails. Reported bails dry in 3 hours. Water in white sand.
245	16.7	do.	B,H	D,S	Rock curb; rock casing, top to bottom. Never fails. Reported bails dry in 6 hours. Water in white sand.
246	Flows	Sep. 15, 1936	None	D,S	Drilled well. Flows 1 gallon a minute. Reported constant for 20 years. Temperature 70° F. Sulphur taste.
247	27.9	do.	B,H	D	Wood curb; no casing. Fails in drought. Water reported in green sand and gravel.
248	--	--	None	N	Oil test. 489 feet of 15 $\frac{1}{2}$ inch casing at top. See log.
249	Flows	Sep. 15, 1936	None	S	Oil test. In St. Augustine County. Estimated flow, 40 to 50 gallons a minute with gas. Sulphur odor and taste. Temperature 72° F.
250	Flows	do.	None	D,S	Oil test. In St. Augustine County. Estimated flow, 10 gallons a minute with gas. Sulphur odor and taste.
251	Flows	do.	None	N	In St. Augustine County. Estimated flow, 1 gallon a minute. Never fails. Water black with sulphur. Reported over sulphur dome. Temperature 71° F.
257	21.1	Sep. 30, 1936	B,H	D	Wood curb; no casing. Never fails. Reported bails dry in 3 to 4 hours. Water in red clay.
258	17.7	Oct. 1, 1936	B,H	D,S	Cement curb; cement casing, top to bottom. Never fails. Reported bails dry in 1 hour. Water in red clay. Rock bottom.
259	Flows	Sep. 15, 1936	None	D,S	Drilled well. Flows 2 $\frac{1}{2}$ gallons a minute. Formerly supplied sawmill. Flow reported constant. Sulphur odor and taste. Temperature 72 $\frac{1}{2}$ ° F.
260	15.4	Sep. 29, 1936	B,H	D,S	Wood curb; wood casing, top to bottom. Water reported hard. Water in blue rock with shells.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) a/
261	14 $\frac{1}{2}$ miles east	Jose Antonio Chrino	C. P. Little	--	Old	25	36	3.1
d/262	13 miles east	Ant. Chireno	J. Lampkins	J. Lampkins	1926	26	36	2.5
266	13 $\frac{1}{2}$ miles southeast	Jose Maria Moria	Southwestern Settlement & Development Co.	--	--	--	72	--
d/267	do.	do.	G. H. Meisenheimer	Higgins Oil & Fuel Co.	--	--	5-7/8	--
271	10 $\frac{1}{2}$ miles southeast	do.	L. C. Jacobs	Elliott & --	1922	400	6	8.0
272	8 $\frac{1}{2}$ miles southeast	do.	Ben Oliver	--	Old	22	36	2.8
273	7 $\frac{1}{2}$ miles southeast	M. C. Chireno	E. C. Parish	--	Old	29	36	4.0
274	8 $\frac{1}{2}$ miles southeast	J. Mora	J. P. Hill	--	1908	30	36	3.4
275	9 $\frac{1}{2}$ miles southeast	do.	J. H. Beard	J. H. Beard	1930	28	36	3.8
277	7 $\frac{1}{2}$ miles south	Nepomuceno	Charley Mathis	--	Old	21	48	3.6
278	6 miles southeast	do.	Tilford Hunt	--	1935	59	36	3.7
283	8 $\frac{1}{2}$ miles southwest	Thos. Lambert	J. L. Perry	--	1935	48	36	2.3
d/284	9 $\frac{1}{2}$ miles southwest	do.	A. T. Mast	Joe Long	1936	870	--	--
285	do.	do.	Sam Stripling	--	1936	42	36	2.6
290	9 miles southwest	Vincent Michelli	Guy Blount	Frank Tucker	1916	570	8	5.0
293	9 $\frac{1}{2}$ miles south	Genio Ramires	Lulia R. Turner	--	--	Spring	--	--
295	8 miles south	Nathan Gann	B. B. Holtam	--	1913	35	48	3.3
296	9 $\frac{1}{2}$ miles south	T. & N. O. R. R.	M. H. Henderson	--	1906	30	36	3.9
297	11 $\frac{1}{2}$ miles southeast	-- De Torres	R. J. Driver	--	Old	54	36	3.6
298	11 miles southeast	Jose Maria Moria	Anna Daniel	--	1871	34	36	2.8
299	12 $\frac{1}{2}$ miles southeast	do.	Florie Daniel	--	Old	19	36	3.4
300	13 $\frac{1}{2}$ miles southeast	-- De Torres	Ben Oliver	Ben Oliver	1920	33	36	2.8
d/303	15 $\frac{1}{2}$ miles southeast	Jesus Gomez	Angelina Lumber Co.	J. C. Bonham	1936	825	--	--
305	17 $\frac{1}{2}$ miles southeast	H. Hamey	Tom Parton	Geo. E. Ginter	1931	252	6	3.0
309	20 $\frac{1}{2}$ miles southeast	Joel Walker	R. G. Atkins	--	1933	27	30	2.8
310	21 $\frac{1}{2}$ miles southeast	do.	Jim Still	--	Old	23	36	3.6

G. H. Cronack, Project Superintendent

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (feet)	Date of measurement			
261	16.1	Sep. 29, 1936	B,H	D,S	Wood curb; wood casing at top. Cannot be bailed dry. Water reported soft. Water in white sand.
262	21.2	Sep. 28, 1936	B,H	D	Wood curb; 4 feet wood casing at top. Never fails. Reported bails dry in 2 hours. Water in rock.
266	--	--	None	N	Dug oil well. Oil and water in blue shell rock. Formerly operated as oil well.
267	--	--	None	N	Oil test. See log.
271	Flows	Oct. 2, 1936	None	D,S	Drilled well. Formerly supplied C.C.C. camp at Woden. Estimated flow, 40 gallons a minute. Temperature 74° F.
272	16.5	Sep. 28, 1936	B,H	D,S	Wood curb; no casing. Never fails. Reported bails dry in 3 hours. Rock in bottom.
273	18.3	Sep. 29, 1936	B,H	D,S	Brick curb; 3½ feet brick casing at top. Fails in drought. Reported bails dry in 2 hours. Water in red clay.
274	27.4	do.	B,H	D	Brick curb; 2½ feet brick casing at top. Never fails. Reported bails dry in 2 hours. Water in red clay.
275	27.2	do.	B,H	D,S	Wood curb; wood casing at top. Cannot be bailed dry. Water reported soft. Water in white sand.
277	19.1	Oct. 2, 1936	B,H	D,S	Wood curb; 3 feet wood casing at top. Cannot be bailed dry. Water reported soft. Water in white sand.
278	57.2	do.	B,H	D	Wood curb; no casing. Fails in drought. Reported bails dry in 1 hour. Turbid. Water in white sand.
283	45.8	Sep. 23, 1936	B,H	D,S	Wood curb; wood casing, top to bottom. Fails in summer. Reported bails dry in 1 hour. Water in white sand.
284	--	--	None	N	Oil test. Not completed Nov. 30, 1936. See log.
285	40.8	Sep. 24, 1936	B,H	D,S	Wood curb; brick casing, top to bottom. Never fails. Reported bails dry in 1 hour. Water in sand under 3 feet of rock.
290	Flows	Sep. 17, 1936	None	S	Oil test. Estimated flow, 35 gallons a minute with sand in suspension. Temperature 78° F.
293	Flows	Oct. 31, 1936	None	D	Estimated flow, 3½ gallons a minute. Turbid. Never fails. Sulphur taste reported.
295	33.1	Oct. 2, 1936	B,H	D	Wood curb; 6 feet wood casing at top. Never fails. Reported bails dry in 4 hours. Water in white sand.
296	25.5	do.	B,H	D,S	Wood curb; 4 feet wood casing at top. Never fails. Reported bails dry in 2 hours. Water in white clay.
297	51.4	Sep. 30, 1936	B,H	D	Wood curb; wood casing at top. Never fails. Reported bails dry in 1 hour. Water in white sand.
298	28.4	do.	B,H	D,S	Wood curb; 5 feet wood casing at top. Cannot be bailed dry. Water in red gravel.
299	16.4	do.	B,H	D	Wood curb; 7½ feet wood casing at top. Never fails. Reported bails dry in 1 hour. Water in yellow sand.
300	31.1	do.	B,H	D,S	Wood curb; 8 feet wood casing at bottom. Never fails. Reported bails dry in 2 hours. Water in red gravel.
303	--	--	None	N	Oil test. Not completed Dec. 12, 1936. See log.
305	Flows	Oct. 2, 1936	None	D,S	Drilled well. Flows 2½ gallons a minute. Reported sulphur taste. Water in fine white sand. Temperature 72° F.
309	14.9	Oct. 1, 1936	B,H	D,S	Tile curb; tile casing, top to bottom. Never fails. Reported bails dry in 5 hours.
310	20.3	do.	B,H	D,S	Cement curb; cement casing, top to bottom. Never fails. Reported bails dry in 5 hours.

Records of wells and springs in Nacogdoches County--Continued

No.	Distance from Nacogdoches	Survey	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.) ^{a/}
311	21 miles southeast	Jas. Sterrock	T. J. Wilson	--	1920	15	36	2.9
312	22 miles southeast	B. McGowen	J. T. Sowell	--	Old	32	36	3.3
314	23½ miles southeast	I. & G. N. R. R.	E. L. Lowery	E. L. Lowery	1911	24	40	4.7

^{a/} Measuring point was usually top of casing, top of pump base, or top of well curb.

^{b/} T, turbine; A, air-lift; C, cylinder; B, bucket; E, electric; G, gasoline engine; Ng, natural gas; S, steam; W, windmill; H, hand; number indicates horsepower.

G. H. Cronack, Project Superintendent

No.	Water Level		Pump and power b/	Use of water c/	Remarks
	Depth below measuring point (feet)	Date of measurement			
311	13.2	Oct. 1, 1936	B,H	D	Wood curb; no casing. Never fails. Reported bails dry in 3 hours. Water in white sand.
312	26.5	do.	B,H	D,S	Wood curb; 6 feet wood casing at top. Never fails. Reported bails dry in 2 hours. Water in red clay.
314	22.9	Oct. 2, 1936	B,H	D,S	Wood curb; 4 feet wood casing at top. Never fails. Reported bails dry in 2 hours. Water in white clay.

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

d/ No water sample collected for analysis.

e/ Water level reported.

Table of Drillers' Logs, Nacogdoches County, Texas

Driller's log of well 4
Palmetto Production Co. - Reeves # 1.
18 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Jlay-	10	10
Sand-	22	32
Rock-	1	33
Sand-	3	36
Rock-	2	38
Sand and gravel-	10	48
Sandy shale-	21	69
Sand-	121	190
Shale and lignite-	23	213
Gypsum and gumbo-	14	227
Gray sand-	21	248
Lignite-	11	259
Hard rock-	5	264
Blue gumbo-	15	279
Soft gumbo and sand-	63	342
Hard rock-	1	343
Hard packed sand-	45	388
Hard rock-	8	396
Sand and lignite-	59	455
Sand and rock-	5	460
Broken, packed sand-	51	511
Sand and boulders-	122	633
No record-	41	674
Packed sand-	12	686
Hard rock-	1	687
Rock, sand, and boulders	87	774
Broken rock-	2	776
Soft sand-	10	786
Hard rock-	1	787
Soft rock-	87	874
Gumbo-	23	897
Sand and shale-	98	995
Sand and lignite-	50	1045
Tough gumbo-	13	1058
Sand-	8	1066
Sand and shale-	12	1078
Lime-	2	1080
Gumbo-	5	1085
Sandy shale and marl-	21	1106
Sand and lignite-	125	1231
Blue shale-	154	1385
Sand and shale-	67	1452
Gumbo-	12	1464
Shale and merl	18	1480
Hard blue rock-	2	1482
Shale and marl-	34	1516
Black sandy shale	7	1523
Pyrite-	1	1524
Gumbo-	6	1530
Rock-	5	1535
Brown shale-	5	1540
Broken sand and lignite	45	1585
Gray sand, lignite, salt water, and show of gas	181	1766
TOTAL DEPTH-		2447

Driller's log of well 18
Cariker and Lacey Water Works. Cushing,
Texas. 15 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Clay	50	50
Shale, sandy shale, and rock-	115	165
Water sand-	21	186
Gumbo-	22	208
Water sand-	99	307
Gumbo-	13	320

Driller's log of well 41
A. Whitaker farm. 9 1/2 miles northwest
of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface-	35	35
Shale-	5	40
Hard rock-	1	41
Sand and gravel-	12	53
Hard and soft sand	20	73
Hard sand-	30	103
Sand-	98	201
Hard rock-	100	301
Gumbo-	3	304
Hard and soft sand-	63	367
Sand and lignite-	31	398
Rock-	2	400
Lignite, gumbo, sand, and gravel-	152	552
Gumbo and sand-	9	561
Hard rock-	1	562
Soft sand-	44	606
Hard sand-	6	612
Water sand-	40	652
Sand-	40	692
Gumbo-	20	712
Lignite-	4	716
Sand-	3	719
Lignite, gumbo, sand, and gravel-	156	875
Hard sand-	15	890
Hard lime rock	3	893
Sand and boulders-	19	912
Lime rock-	2	914
Gumbo and lime rock-	12	926
Hard lime rock-	1	927
Lignite and water sand	13	945
Gumbo-	11	956
Sand and boulders-	50	1006
Lime rock-	29	1035
Packed sand and gumbo-	46	1081
Sand and boulders-	43	1124
Tough gumbo-	10	1134
Sand and lignite-	10	1144
Hard sand and lignite-	33	1227
Hard sand rock-	2	1229
Sand-	6	1235
Gumbo-	10	1245

(Continued on next page)

Table of Drillers' logs, Nacogdoches County--Continued

Driller's log of well 41--Continued	
Thickness (feet)	Depth (feet)
Sand and boulders- - - - -	12 1257
Hard sand and boulders- - - -	131 1388
Sand rock- - - - -	2 1390
Sand and boulders- - - - -	140 1530
Gumbo- - - - -	15 1545
Rock- - - - -	1 1546
Hard rock- - - - -	1 1547
Packed sand- - - - -	43 1590
Sand and boulders - - - - -	5 1595
Rock- - - - -	1 1546
Slick rock- - - - -	20 1616
Line- - - - -	1 1617
Sand- - - - -	16 1633
Gumbo- - - - -	3 1636
Sandy gumbo - - - - -	29 1665
Hard rock- - - - -	1 1666
Packed sand- - - - -	1 1667
Sandy gumbo- - - - -	10 1677
Gumbo- - - - -	25 1702
Gumbo- - - - -	15 1717
Hard lime- - - - -	30 1747
Gumbo- - - - -	18 1765
Sand and boulders- - - - -	15 1780
Sand rock- - - - -	22 1802
Gumbo and sand- - - - -	30 1832
Sand and boulders- - - - -	21 1853
Hard lime rock- - - - -	14 1867
Packed sand and boulders- - -	4 1871
Gumbo and sand- - - - -	31 1902
Packed sandy gumbo and boulders	90 1992
Rock- - - - -	1 1993
Gumbo, sand, and boulders - -	9 2002
Line- - - - -	2 2004
TOTAL DEPTH - - - - -	3372
No casing record given.	

Driller's log of well 92

Producers Oil Co., Texas Co. lease. On the west line of the Richard Nelson Survey, 10 miles northeast of Nacogdoches.

Sand- - - - -	24 24
Gumbo, green sand and marl- -	88 112
Gumbo, 2 feet of sandstone- -	46 158
Gumbo, 2 feet of hard rock- -	50 208
Record lost, but reported 5 feet of water sand- - - - -	44 252
No record in part; rock, 5 feet	43 295
No record in part; sandstone, 5 feet- - - - -	45 340
Partial record; 5 feet of rock	46 386
Partial record; 5 feet of sandstone- - - - -	46 432
Record not kept- - - - -	180 613
Rock, 5 feet; partial record- -	45 658
Hard sand- - - - -	69 727

Driller's log of well 92--Continued	
Thickness (feet)	Depth (feet)
Partial record; very little shale- - - - -	112 839
Sand- - - - -	10 849
Gumbo- - - - -	10 859
Partial record; rock, 1 foot	24 883
Gumbo- - - - -	22 905
Hard sand- - - - -	22 927
Sand with 2 feet of rock- -	21 948
Sand- - - - -	24 972
Water sand- - - - -	24 996
Partial record; rock, 2 feet	21 1017
Sand- - - - -	46 1063
Partial record; 8 feet of porous rock, containing no water- - - - -	24 1087
Porous rock; reduced casing from 7-7/8 to 5 -7/8 inches	11 1098
Water sand- - - - -	34 1132
Hard sand- - - - -	22 1155
Sand; water flow- - - - -	107 1263
Sand with black, flaky dirt	315 1573
Rock with gas- - - - -	2 1580
Black flaky dirt- - - - -	44 1624
Rock- - - - -	21 1715
Lignite- - - - -	5 1720
Gumbo- - - - -	42 1762
Gumbo, with 4 feet of rock- -	24 1786
Rock- - - - -	40 1826
Rock and hard sand with a little lignite- - - - -	74 2000

Driller's log of well 120

Nacogdoches Ice Co. In Nacogdoches.

Black loam- - - - -	12 12
Brown stone and gravel- - -	10 22
Fine blue sand and blue soapstone- - - - -	70 92
Clay or soapstone with sand and boulders- - - - -	201 293
Hard shale with streaks of sand- - - - -	7 300
Sand- - - - -	30 330
Shale- - - - -	10 340
White sand, varying in fineness, with some streaks of shale, 6 inches thick -	160 500
Rock- - - - -	500

Driller's log of well 121

Municipal Water Works, City of Nacogdoches.

Surface sand- - - - -	7 7
Sandy clay- - - - -	9 16
Iron ore rock - - - - -	2 18

(Continued on next page)

Table of Drillers' logs, Nacogdoches County--Continued

Driller's log of well 121--Continued

	Thickness (feet)	Depth (feet)
Black sand-	19	37
Green rock-	1	38
Green shale-	37	75
Sand rock-	1	76
Boulders and black shale-	30	106
Shale and boulders-	47	153
Sand rock-	1	154
Hard shale-	25	179
Sticky shale-	28	207
Hard sand-	7	214
Hard rock-	1	215
Sandy shale-	4	219
Sand rock-	1	220
Hard sandy shale-	18	238
Sand rock-	1	239
Hard shale-	18	257
Shale and rock-	2	259
Hard shale-	53	312
Sandy shale-	57	369
White sand-	5	374
Good sand-	110	484

CASING RECORD: 321 feet of 20 inch, 10 inch from 134 feet to the bottom with screen at 380-470 feet.

Driller's log of well 122

Municipal Water Works, well no. 6.
City of Nacogdoches.

Air-	3	3
Surface sand-	4	7
Sandy clay-	9	16
Iron ore rock-	2	18
Black sand-	19	37
Green rock-	1	38
Green shale-	37	75
Sand rock-	1	76
Shale-	30	106
Gumbo and shale-	16	122
Gray shale-	31	153
Sand rock-	1	154
Hard shale-	25	179
Brown gumbo-	28	207
Hard sand rock-	4	211
Hard sandy shale-	3	214
Hard sand rock-	1	215
Hard sandy shale-	4	219
Hard sand rock-	1	220
Hard sandy shale-	18	238
Hard sand rock-	1	239
Gumbo-	18	257
Rock-	2	259
Shale-	19	278
Gumbo-	4	282
Hard sand-	3	285
Gumbo-	27	312

Driller's log of well 122--Continued

	Thickness (feet)	Depth (feet)
Gray shale and sand-	26	338
Gumbo-	15	353
Gray sandy shale-	16	369
White water sand-	112	481
Gumbo-	4	485

Set 322 feet of 20 inch casing with shoe on bottom.

Driller's log of well 156

Pearl Oil Co, San Hayter farm. 7 miles northwest of Nacogdoches.

Clay, gravel, and sand-	52	52
Lignite-	7	59
Clay and sand-	21	80
Greenish black sand-	70	150
Hard rock-	3	153
Artesian water sand-	245	398
Hard sand-	32	430
Sand-	105	535
Rock-	1	536
Sand-	14	550
Sand and boulders-	35	585
Gumbo-	8	593
Shale and boulders-	53	646
Rock-	2	648
Sand, shale, and boulders-	36	684
Hard iron rock-	1	685
Sand and shale-	90	775
Shale and boulders-	50	825
Rock-	2	827
Gummy shale-	48	875
Rock-	4	879
Stratified sand and shale-	111	990
Sand and shale-	116	1106
Sandy sticky shale-	179	1285
Hard rock-	1	1286
Rock-	3	1289
Sand-	121	1410
Rock-	3	1413
Sand and shells-	173	1586
Rock-	4	1590
TOTAL DEPTH-		4314

Driller's log of well 159

Texas Pipe Line Co., A. P. Hall farm. 11 miles west of Nacogdoches.

Black shale-	40	40
Soft black sand-	180	220
Black shale-	60	280
Hard white rock-	5	285
Hard brown sand-	42	327
Hard brown sand and scatter- ed rock-	175	502
White and gray sand-	16	518
Fine white water sand-	7	525

(Continued on next page)

Table of Drillers' logs, Nacogdoches County--Continued

Driller's log of well 159--Continued
 CASING RECORD: 478 feet of 6 inch casing with 24 feet of 6 inch screen, set between 478 and 502 feet, and 24 feet of 6 inch blank on bottom. 166 feet of 3 inch galvanized tubing.

Driller's log of well 205
 Reeds Lake, J. J. Fenley, Proprietor.
 1 mile south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Soil- - - - -	2	2
Clay- - - - -	4	6
Hard shale- - - - -	12	18
Sand- - - - -	2	20
Hard black shale- - - - -	14	34
Sand- - - - -	4	38
Hard black shale- - - - -	11	49
Sand rock- - - - -	8	57
Hard black shale- - - - -	37	94
Rock- - - - -	3	97
Lignite and shale - - - - -	173	270
Rock- - - - -	2	272
Hard shale- - - - -	8	280
Rock- - - - -	3	283
Hard shale- - - - -	90	373
Fine brown shale- - - - -	25	398
Hard shale- - - - -	29	427
Salt and pepper sand- - - - -	30	457
Sand and shale- - - - -	54	511
Salt and pepper sand- - - - -	15	526
Sand and shale- - - - -	10	536

CASING RECORD: 138 feet of 8 inch, 8 X 6 inch swage, 294 feet of 6 inch, 59 feet of 4½ inch lapped 23 feet in 6 inch, 89 feet of 4½ inch screen, set at 447 -536 feet.

Driller's log of well 232
 Lubricating Oil Co., E. A. Day farm.
 10 miles east of Nacogdoches.

Red clay- - - - -	9	9
Bluish-green calcareous shell marl- - - - -	61	70
Dark green calcareous shell marl- - - - -	49	119
Dark-drab clay- - - - -	20	139
Light-drab clay, with iron pyrite- - - - -	116	255
Sand with iron pyrite - - - - -	3	258
Dark-drab clay- - - - -	35	293
Calcareous marl, with sand streaks- - - - -	6	299
Sandstone- - - - -	3	302
Clay with sand streaks and iron pyrite - - - - -	7	309

	Thickness (feet)	Depth (feet)
Dark, bluish-green shell marl- - - - -	29	338
Dark-drab clay - - - - -	11	349
Marl- - - - -	3	352

Driller's log of well 248
 Darwin Bonodum, J. H. Cronkrite Estate.
 17 miles east of Nacogdoches.

Sand and clay- - - - -	22	22
Dark gumbo- - - - -	16	38
Shell rock and gumbo - - - - -	14	52
Shale and shell- - - - -	22	74
Sand and hard shale- - - - -	21	95
Shale with hard streak- - - - -	5	100
Sand and shale- - - - -	69	169
Broken rock- - - - -	5	174
Shale and sand with thin layers of rock- - - - -	40	214
Rock- - - - -	2	216
Sand and broken shale- - - - -	34	250
Sand and hard lime- - - - -	5	255
Sand with hard streak and water- - - - -	49	401
Lignite- - - - -	11	411
Sand with streaks of shale and water- - - - -	74	489
Gummy shale- - - - -	11	500
Shale, sand, and shell- - - - -	60	560
Sand and shale- - - - -	55	615
Sand with streak of gumbo- - - - -	60	675
Shale with streak of sand- - - - -	83	758
Hard rock- - - - -	1	759
Sandy shale- - - - -	36	795
Sand with hard streak and water- - - - -	108	903
Rock - - - - -	5	908
Sand and shale- - - - -	37	945
Sand with hard streak- - - - -	68	1013
Rock- - - - -	2	1015
Sand with hard streak- - - - -	145	1160
Hard rock- - - - -	6	1166
Shale and sand- - - - -	2	1168
Sand- - - - -	44	1212
Rock- - - - -	1	1213
Sand with hard streak - - - - -	57	1270
Hard rock- - - - -	5	1275
Sand with hard streak- - - - -	20	1295
Sticky shale- - - - -	3	1298
Shale and sand- - - - -	100	1398
Hard rock- - - - -	7	1405
Sand and shale- - - - -	36	1441
Sand rock and lime - - - - -	2	1443
Sand and shale- - - - -	12	1455

(Continued on next page)

Table of Drillers' Logs, Nacogdoches County--Continued

Driller's log of well 248--Continued

	Thickness (feet)	Depth (feet)
Sand- - - - -	11	1466
Lime, shale and sand- - - - -	3	1469
Sand and shale- - - - -	110	1579
Rock- - - - -	2	1581
Sand, shale, and lignite - - - -	111	1692
Sand- - - - -	1	1693
Sandy shale- - - - -	18	1711
Hard sandy lime- - - - -	1	1712
Water sand- - - - -	26	1738
Sand with hard streaks- - - - -	43	1781
Sand rock- - - - -	1	1782
Sand with shale- - - - -	7	1789
Dark brittle shale- - - - -	26	1815
Gray and brown sand- - - - -	19	1834
Sand and shale- - - - -	37	1871
Gray sand- - - - -	5	1876
Sand and lignite- - - - -	22	1898
Sand with hard streak - - - - -	23	1921
Sandy shale- - - - -	120	2041
Water sand- - - - -	72	2113
TOTAL DEPTH- - - - -		5483

Driller's log of well 267
Higgins Oil and Fuel Co., G. H.
Meisenheimer lease. 13 $\frac{1}{2}$ miles south-
east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface yellow sand- - - - -	20	20
Blue sand- - - - -	36	56
Black gumbo and greensand marl- - - - -	10	66
Black shale, shells, green- sand marl, and oil- - - - -	9	75
Black shale, greensand marl- - - -	8	83
Black shale, shells, and greensand marl- - - - -	53	136
Soft sandy rock- - - - -	6	142
Black shale, shells with oil- - - -	42	184
Hard shale, shells, and rock with oil- - - - -	76	260
Blue limerock- - - - -	10	270
Shale with oil- - - - -	50	320
Hard blue limerock and shells - - -	8	328
Hard marl, showing oil - - - - -	8	336
Hard rock and indurated green- sand- - - - -	30	366
Blue gumbo- - - - -	4	370
Soft rocks with hard streaks, blue water sand with artesian flow- - - - -	40	410
Soft marl, showing oil and blue water sand- - - - -	57	467
Artesian sand; main flow - - - - -	11	478
Hard sandrock with petrified white wood- - - - -	4	482

Driller's log of well 267--Continued

	Thickness (feet)	Depth (feet)
Soft sand- - - - -	2	484
Hard sandrock- - - - -	5	489
Soft blue marl- - - - -	32	521
Hard marl- - - - -	2	523
Soft marl- - - - -	11	534
Hard marl- - - - -	4	538
Marl with thin beds of rock- - - -	18	556
Dark sand- - - - -	13	569
Rock and black marl- - - - -	1	570
Blue gumbo- - - - -	13	583
Hard rock- - - - -	1	584
Blue gumbo- - - - -	10	594
Rock- - - - -	1	595
Gumbo- - - - -	13	608
Rock- - - - -	1	609
Gumbo- - - - -	3	617
Marl- - - - -	15	632
Rock- - - - -	1	633
Green marl- - - - -	6	639
White sand- - - - -	2	641
Marl and sand- - - - -	9	650
Green marl- - - - -	2	652
White sand- - - - -	12	664
Gummy marl - - - - -	40	704
White sand- - - - -	11	715
Gumbo- - - - -	2	717
Black rock- - - - -	1	718
Gumbo- - - - -	4	722
White sand- - - - -	16	738
Shale and sand- - - - -	15	753
Medium hard rock- - - - -	2	755
Tough gumbo- - - - -	15	770
Black shale- - - - -	41	811
Hard shale- - - - -	4	815
Sandy shale- - - - -	21	836
Soft gumbo- - - - -	4	840
Sandy shale- - - - -	29	869
Blue gumbo- - - - -	7	876
White sand- - - - -	11	887
Brittle shale- - - - -	8	895
Tough, black gumbo and some coal- - - - -	24	919
Brittle shale- - - - -	14	933
Gumbo - - - - -	4	937
Blue limerock- - - - -	6	943
Gumbo- - - - -	2	945
Hard marl- - - - -	5	950
Hard blue rock- - - - -	3	953
Conglomerate with artesian flow; warm water- - - - -	37	990
Rock- - - - -	3	993
Shale and conglomerate - - - - -	58	1051
Very hard blue rock- - - - -	1	1052

(Continued on next page)

Table of Drillers' Logs, Nacogdoches County--Continued

Driller's log of well 267--Continued	
Thickness	Depth
(feet)	(feet)
Sandy shale- - - - -	-13 1065
Black gumbo- - - - -	8 1073
Blue and white brittle shale	-33 1106
Sandy shale- - - - -	-31 1137
White gumbo- - - - -	-20 1163
Blue limerock and black shale-	3 1166
Soft rock- - - - -	3 1169
Soft white mud- - - - -	5 1174
Blue shale- - - - -	-11 1185
Lignite showing - - - - -	9 1194
Brown shale- - - - -	-12 1206
Gumbo- - - - -	5 1211
Soft gumbo and thin bed of rock	
with brittle brown shale - - - -	6 1231
Brown shale- - - - -	-42 1273
Blue gumbo- - - - -	6 1279
Hard black shale- - - - -	30 1309
Hard gray sandrock- - - - -	2 1311
Hard shale with flakes of soft	
sandrock- - - - -	28 1339
Shale and thin beds of rock -	33 1372
Thin bed of rock- - - - -	1 1373
Shale- - - - -	7 1380
Gumbo- - - - -	15 1395
Lignite - - - - -	11 1406
Brittle shale- - - - -	-14 1420
Sandy shale- - - - -	-70 1490
Soft limerock- - - - -	1 1491
Sand- - - - -	4 1495
Hard sandy shale with thin beds	
of rock- - - - -	-23 1518
Gray rock- - - - -	1 1519
Hard shale with layers of rock	21 1540
Hard sandy shale, with snails	
of rock- - - - -	-33 1573
Soft shale- - - - -	-21 1594
Hard, yellow lime- - - - -	3 1597
Sandy shale- - - - -	-17 1614
Hard blue sandrock- - - - -	3 1617
Blue sandy shale- - - - -	5 1622
Soft limerock- - - - -	1 1623
Soft shale with thin beds of	
rock- - - - -	-11 1634
Sandy shale- - - - -	-39 1673
Shale and thin beds of rock-	-23 1696
Hard, yellow lime- - - - -	1 1697
Hard shale with thin beds of	
rock- - - - -	9 1706
Hard sandy shale- - - - -	-24 1730
Soft rock- - - - -	5 1735
Very hard, sandy shale - - - -	5 1740
Hard sandy shale- - - - -	-20 1760
Rough rock- - - - -	2 1762
Hard sandy shale with thin	
beds of rock- - - - -	-27 1739

Driller's log of well 267--Continued	
Thickness	Depth
(feet)	(feet)
Hard sand, with thin beds	
of rock- - - - -	27 1816
Hard, yellow lime- - - - -	1 1817
Hard sandy shale with thin	
beds of rock- - - - -	15 1832
Hard sandy shale- - - - -	55 1887
Soft, rough limerock - - - -	2 1889
Brown, brittle shale with	
sand- - - - -	26 1915
Sand and shale - - - - -	24 1939
Hard sand with thin beds of	
rock- - - - -	11 1950
Soft limerock- - - - -	5 1955

Partial Driller's log of well 264
 Joe Long, A. T. Mast lease. $9\frac{1}{2}$ miles
 southwest of Nacogdoches.
 Surface sand and clay- - - 240 240
 Sand and shale- - - - - 310 550
 Water sand, artesian flow- 320 870
 Well not completed November 30, 1936.

Partial driller's log of well 203
 J. C. Bonham, Angelina Lumber Co. lease.
 $15\frac{1}{2}$ miles southeast of Nacogdoches.
 Surface clay and shale- - -300 300
 Water sand- - - - - 30 330
 Shale and lime rock- - - - 70 400
 Oil sand- - - - - 20 420
 Sand and shale- - - - - -255 675
 Artesian water sand - - - -150 825
 Well not completed, November 30, 1936.

Logs of test wells drilled by W. P. A. labor in Nacogdoches County, Texas.

Samples examined and classified by G. H. Cromack,

Project Superintendent

Wells drilled July 1 to November 4, 1936

Well 8

Hillside, center of south line of A. E. and H. A. Williamson 131 acre tract, Jose Maria Musquez Survey, 17 1/2 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
White sand	6	6
Yellow sand	3	9
Gray sand	1	10
Yellow sand	1	11
Yellow and gray sand	2	13
Brown sand	1	14
Red and gray sandy clay	2	16
Brown sand	1	17
Red and brown sand	1	18
Red sand	2	20
Gray sand	3	23

Struck water at 19 feet.
Washing at 23 feet.
Water level, 19 feet below top of ground, 1 hour after hole completed.

Well 10

Slope, center of east line of A. S. Brewer 74 acre tract, Jose Maria Musquez Survey, 15 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand	2	2
Gray sand	4	6
Gray sand	5	9
Red sand	7	16
Gray sand and clay	1	17
Brown and white sand	1	18
Red sand	1	19
White sand	1	20
Brown sand	5	25

Struck water at 20 feet.
Washing at 25 feet.
Water level, 21 feet below top of ground, 2 hours after hole completed.

Well 11

Hilltop, southwest corner of west line of I. Woford tract, Jose Maria Musquez Survey, 16 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand	3	3
Yellow sand	2	5
Red sand	1	6
Brown sand	1	7
Brown and white sand	1	8
Red sand	1	9
White sand and clay	6	15

Struck water at 10 feet.
Hard slippery clay below 15 feet.

Well 11--Continued

Water level, 10 feet below top of ground, 1 hour after hole completed.

Well 13

Flat, southeast corner of T. J. Self 62 acre tract, Maria J. Sanches Survey, 14 1/2 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand	2	2
White sand	1	3
Brown sand and clay	2	5
Gray sand	3	8
Yellow sand	1	9
Red clay	4	13
Gray and red clay	2	15
Red clay	4	19

Struck water at 15 feet.
Hard slippery clay below 19 feet.
Water level, 13 feet below top of ground, 1 hour after hole completed.

Well 22

Hillside, southwest corner of G. W. Jamison 100 acre tract, Alf. Oliver Survey, 13 1/2 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand and gravel	1	1
Brown sand and gravel	1	2
Red sandy clay and gravel	3	5
Red and gray sand	2	7
Red and gray sandy clay	2	9
Brown and white sand	2	11
Brown and white sandy clay	3	14
Brown sand	4	18

Chocolate clay and gray sand
sand - - - - - 1 19
Brown sand - - - - - 1 20
Brown sandy clay - - - - - 2 22
Brown and white sand - - - - - 4 26

Struck water at 20 feet.
Washing below 26 feet.
Water level, 18 feet below top of ground, 2 hours after hole completed.

Well 28

Flat upland, northeast corner of O. M. Johnson 50 acre tract, Hy. Brewer Survey, 11 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy clay	2	2
Red and gray clay	4	6
Brown and gray sand	1	7
Gray sand	3	10
Brown sand and silt	9	19

Logs of test wells in Nacogdoches County--Continued.

Well 28--Continued

	Thickness (feet)	Depth (feet)
Brown clay - - - - -	1	20
Brown sandy clay - - - - -	3	23
Black clay - - - - -	3	26
Black sandy clay - - - - -	3	29
Struck water at 28 feet.		
Hard slippery clay (soapstone) below 29 feet.		
Water level, 26 feet below top of ground, 17 hours after hole completed.		

Well 32

Hilltop, southwest corner of L. M. Hill 90 acre tract, J. Weeks Survey, 13 $\frac{1}{2}$ miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red clay - - - - -	1	1
Red sandy clay - - - - -	3	4
Brown sandy clay - - - - -	8	12
Yellow sand - - - - -	1	13
Gray and brown sand - - - - -	2	15
Gray sand - - - - -	1	16
Brown and gray sand - - - - -	8	24
Gray and chocolate sand - - - - -	4	28
Grayish black sand - - - - -	7	35
Struck water at 34 feet.		
Washing below 35 feet.		
Water level, 33 $\frac{1}{2}$ feet below top of ground, 60 hours after hole completed.		

Well 38

Flat hilltop, northeast corner of T. A. Neil 510 acre tract, Luis Sanches Survey, 10 $\frac{1}{2}$ miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red sandy clay - - - - -	2	3
Brown sandy clay - - - - -	4	7
Brown sand - - - - -	2	9
Tan sand - - - - -	1	10
Redish brown sand - - - - -	1	11
Brown sand - - - - -	2	13
Red sand and gravel - - - - -	1	14
Brown and white sand - - - - -	6	20
Yellowish brown sand and gravel - - - - -	1	21
Brown and gray sandy clay - - - - -	2	23
Brown and red sand - - - - -	1	24
Brown sandy silt - - - - -	3	27
Brown and white sand - - - - -	3	30
Struck water at 27 feet.		
Washing and caving below 30 feet.		
Water level, 25 $\frac{1}{2}$ feet below top of ground, 1 hour after hole completed.		

Well 40

Flat upland, southeast corner of S. J. Weatherly 130 acre tract, Luis Sanches Survey, 9 $\frac{1}{2}$ miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy clay - - - - -	1	1
Red and gray sandy clay - - - - -	1	2
Greenish brown sand - - - - -	1	3
Brown and gray sandy silt - - - - -	7	10
Gray sandy silt - - - - -	1	11
Brown and gray sandy clay - - - - -	3	14
Red sandy clay - - - - -	1	15
Brown sandy clay - - - - -	4	19
Struck water at 15 feet.		
Hard slippery clay below 19 feet.		
Water level, 15 feet below top of ground, 6 hours after hole completed.		

Well 42

Flat, northeast corner of C. B. Owens 289 acre tract, Wm. A. Lumpkin Survey, 9 $\frac{1}{2}$ miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy clay and gravel - - - - -	4	4
Red and white sandy clay - - - - -	1	5
Brown and white sandy clay - - - - -	2	7
Brown and greenish sand - - - - -	4	11
Red and brown sand and rock - - - - -	2	13
Grayish brown sand with traces of clay - - - - -	5	18
Brown sand with gravel and traces of clay - - - - -	7	25
Brown and green sand and traces of clay - - - - -	1	26
Brown sand - - - - -	1	27
Chocolate sand - - - - -	1	28
Green sand - - - - -	5	33
Green sand and lime rock - - - - -	1	34
Formation too hard.		
No water sample collected.		

Well 44

Flat -- middle of small dry sink, center of north $\frac{1}{2}$ of west line of G. E. Middlebrook 150 acre tract, Wm. A. Lumpkin Survey, 8 $\frac{1}{2}$ miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Redish brown sand - - - - -	1	2
Tan sand - - - - -	1	3
Redish brown, sandy clay - - - - -	3	6
Red and gray sandy clay - - - - -	4	10
Red sandy clay - - - - -	1	11
Red and gray sandy clay - - - - -	1	12

Logs of test wells in Nacogdoches County--Continued

Well 44--Continued

	Thickness (feet)	Depth (feet)
Gray clay - - - - -	1	13
Light chocolate colored clay - - - - -	2	15
Brown and gray sandy clay-	4	19
Yellowish brown sandy clay	1	20
Brown sandy clay - - - - -	2	22
Struck water at 18 feet.		
Washing at 22 feet.		
Water level, 17 $\frac{1}{2}$ feet below top of ground, 2 hours after hole completed.		

Well 47

Hillside, southeast corner of W. E. Williams
90 acre tract, Hy. Bailey Survey, 7 $\frac{1}{2}$ miles
north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red sandy clay and gravel-	2	3
Red and white sand - - - -	5	8
Red and white sandy clay -	2	10
Chocolate clay - - - - -	2	12
Green sand - - - - -	12	24
Struck water at 12 feet.		
Washing below 24 feet.		
Water level, 12 feet below top of ground, 1 hour after hole completed.		

Well 53

Ridge top, near southwest corner of north-
east $\frac{1}{4}$ of A. W. Whitaker 260 acre tract,
Mariana Sanches Survey, 10 miles north of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy clay - - - - -	3	3
Red and gray clay - - - -	1	4
Gray and tan sandy clay- -	2	6
Gray sandy clay - - - - -	2	8
Brown and gray sandy clay-	2	10
Chocolate clay - - - - -	1	11
Chocolate and brown clay -	5	16
Brown and chocolate sandy clay - - - - -	8	24
Brown sandy silt with gyp- sum crystals - - - - -	6	30
Green and brown sand - - -	1	31
Green sand and gypsum crys- tals - - - - -	3	34
No water sample collected.		

Well 58

Hillside bench, southwest corner of J. K.
Cortes Survey, 12 $\frac{1}{2}$ miles north of Nacogdo-
ches.

Well 58--Continued

	Thickness (feet)	Depth (feet)
Surface sand- - - - -	2	2
White sand- - - - -	4	6
Yellow sand - - - - -	1	7
Red and white sand- - - -	2	9
Yellow sand - - - - -	4	13
Struck water at 12 feet.		
Caving at 13 feet.		
Water level, 12 feet below top of ground 4 hours after hole completed.		

Well 65

Ridge top, center south $\frac{1}{2}$ of west line
of R. W. McLain 270 acre tract, Ignac.
Sanches Survey, 8 miles north of Nacog-
doches.

	Thickness (feet)	Depth (feet)
Red clay- - - - -	2	2
Red and white clay- - - -	2	4
Brown and white clay - -	5	9
Greenish brown clay - - -	2	11
Brown sandy clay - - - -	2	13
Greenish brown sandy clay	5	18
Black sand - - - - -	2	20
Struck water at 17 feet.		
Washing at 20 feet.		
Water level, 9 $\frac{1}{2}$ feet below top of ground 6 hours after hole completed.		

Well 74

Hilltop, northeast corner of H. C. Moore
45 acre tract, Jos. Coody Survey, 15 $\frac{1}{2}$
miles northeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red clay- - - - -	1	1
Brown sandy clay- - - - -	1	2
Brown and white sandy clay	2	4
Brown sand- - - - -	6	10
Gray sand - - - - -	3	13
Struck water at 9 feet.		
Washing at 13 feet.		
Water level, 6 feet below top of ground, 4 hours after hole completed.		

Well 91

Hillside, 50 yards from center of south
line of R. E. Mills 153 acre tract, J.
Cooper Survey, 10 $\frac{1}{2}$ miles northeast of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand- - - - -	3	3
Red sand- - - - -	10	13
Redish brown sand - - - -	8	21

Logs of test wells in Nacogdoches County--Continued

Well 91--Continued

	Thickness (feet)	Depth (feet)
Light brown sand - - - - -	5	26
White sand - - - - -	7	33
Brown sand - - - - -	1	34
White sand - - - - -	3	37
Brown sand - - - - -	2	39
No water sample collected.		

Well 99

Hilltop, northeast corner of L. W. Dennis 10 acre tract, S. B. Barrow Survey, 9 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
White sand - - - - -	2	4
Brown sand - - - - -	1	5
Yellow sand - - - - -	1	6
Red sand and clay - - - - -	2	8
Gray and yellow sandy clay	2	10
Gray and brown clay - - - - -	1	11
Gray and yellow clay - - - - -	2	13
Brown sand and clay - - - - -	1	14
Yellow sand and clay - - - - -	1	15
Chocolate sand and clay - - - - -	3	18
Black clay - - - - -	2	20
Black sandy silt - - - - -	5	25
Struck water at 24 feet.		
Water level, 24 feet below top of ground, 4 hours after hole completed.		

Well 100

Ridge top, center of A. D. Stripling 97 acre tract, J. C. Judd Survey, 8½ miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red clay and gravel - - - - -	2	3
Yellow clay and gravel - - - - -	4	7
Chocolate clay - - - - -	1	8
Gray clay - - - - -	1	9
Chocolate clay - - - - -	5	14
Struck water at 11 feet.		
Washing at 14 feet.		
Water level, 7 feet below top of ground, 2 hours after hole completed.		

Well 102

Flat, Shady Grove School. northeast corner of east line of D. A. Lee 72 acre tract, Jesse Walling Survey, 6½ miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Red clay and gravel - - - - -	4	6

Well 102--Continued

	Thickness (feet)	Depth (feet)
Red and gray clay - - - - -	4	10
Brown and gray clay - - - - -	6	16
Struck water at 11 feet.		
Hard slippery clay at 16 feet.		
Water level, 10 feet below top of ground, 1 hour after hole completed.		

Well 104

Hillside, northwest corner of T. E. Burgess 100 acre tract, Vital Flores Survey, 3 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Yellow and white sand - - - - -	10	12
Yellow and gray clay and gravel - - - - -	3	15
Yellow clay and gravel - - - - -	2	17
Yellow and black clay - - - - -	1	18
Struck water at 15 feet.		
Rock at 18 feet.		
Water level, 14 feet below top of ground, 16 hours after hole completed.		

Well 105

Hillside, center of east line of east 2/3 of east 100 acres of M. S. Dale tract, M. J. Ariola Survey, 4¼ miles northeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Yellow clay - - - - -	1	2
Yellow sand - - - - -	4	6
Yellow and white sand - - - - -	1	7
Yellow sand - - - - -	3	10
Brown clay - - - - -	7	17
Brown gravel - - - - -	3	20
Struck water at 15 feet.		
Gravel at 20 feet.		
Water level, 15 feet below top of ground, 2 hours after hole completed.		

Well 106

Ridge top, northeast corner of M. S. Dale 151 acre tract, M. J. Ariola Survey, 6 miles northeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red surface soil - - - - -	2	2
Red and gray clay - - - - -	2	4
Yellow and gray clay - - - - -	2	6
Red and gray clay - - - - -	3	9
Yellow clay - - - - -	3	12
Yellow and gray clay - - - - -	3	15
Yellow and chocolate clay - - - - -	2	17

Logs of test wells in Nacogdoches County--Continued.

Well 106--Continued

	Thickness (feet)	Depth (feet)
Chocolate clay - - - - -	6	23
Struck water at 17 feet.		
Hard slippery clay at 23 feet.		
Water level, 16 feet below top of ground, 2 hours after hole completed.		

Well 107

Flat, Happy Land School near center of north $\frac{1}{2}$ of R. M. Olds 200 acre tract, Miguel Galan Survey, $6\frac{1}{2}$ miles northeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface soil - - - - -	1	1
Red and gray clay - - - - -	2	3
Yellow and gray clay - - - - -	6	9
Brown and chocolate clay - - - - -	1	10
Black silt - - - - -	2	12
Chocolate silt - - - - -	9	21
Black sand - - - - -	3	24
Struck water at 23 feet.		
Washing at 24 feet.		
Water level, 23 feet below top of ground, $\frac{1}{2}$ hour after hole completed.		

Well 112

Hilltop, northeast corner of J. E. Hill 55 acre tract, Albert Emanuel Survey, $6\frac{1}{2}$ miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Redish brown sand and gravel- - - - -	7	7
Yellow and white sandy clay - - - - -	1	8
Dark brown sand and gravel	2	10
Brown sand and gray clay -	3	13
Brown sand rock- - - - -	2	15
Brown sand, rock and gray sand - - - - -	1	16
Brown sand and rock- - - - -	1	17
Chocolate clay and sand- -	2	19
Black clay and sand- - - -	2	21
Black sand and gravel- - -	2	23
Struck water at 23 feet.		
Rock below 23 feet.		
Water level, $22\frac{1}{2}$ feet below top of ground, $1\frac{1}{2}$ hours after hole completed.		

Well 115

Hilltop, center of west $\frac{1}{2}$ of north line of E. M. Greer 75 acre tract, J. Cordova & Bros. Survey, 5 miles northeast of Nacogdoches.

Well 115--Continued

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Fine, light brown sand - -	4	5
Redish brown sand and gravel- - - - -	5	10
Redish brown sand- - - - -	3	13
Redish brown sand and gravel- - - - -	2	15
Red sand rock- - - - -	$1\frac{1}{2}$	$16\frac{1}{2}$
No water sample collected.		

Well 117

Ridge top, center of north line of W. A. Burrows 194 acre tract, Wm. White Survey, $3\frac{3}{4}$ miles northeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Yellow clay- - - - -	2	4
Red and gray clay- - - - -	3	7
Yellow clay and gravel - -	3	10
Struck water at 9 feet.		
Washing at 10 feet.		
Water level, $6\frac{1}{2}$ feet below top of ground, 5 hours after hole completed.		

Well 119

Hilltop, northwest corner of J. W. and L. A. Cox 97 acre tract, S. Marshall Survey, $2\frac{1}{4}$ miles northeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Yellow sand- - - - -	6	8
Red sand - - - - -	4	12
Yellow sand- - - - -	3	15
Yellow and gray sand - - -	2	17
Red sand - - - - -	1	18
Yellow sand- - - - -	1	19
Gray sand- - - - -	10	29
Yellow sand- - - - -	7	36
Yellow and gray sand - - -	2	38
White clay - - - - -	1	39
Yellow sand- - - - -	3	42
Gray and brown sand- - - -	7	49
Struck water at 49 feet.		
Washing below 49 feet.		
Water level, $48\frac{1}{2}$ feet below top of ground, 1 hour after hole completed.		

Well 123

Slope -- rolling country, southeast corner of M. Thorn tract, L. G. Parker Survey, $\frac{3}{4}$ mile north of Nacogdoches.

Logs of test wells in Nacogdoches County--Continued

Well 123--Continued

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Tan sand - - - - -	2	3
Redish brown sand- - - - -	3	6
Brown sand - - - - -	8	14
Brown and white sand and small layers of gray clay	2	16
Struck water at 14 feet.		
Washing at 16 feet.		
Water level, 12 feet below top of ground, 2 hours after hole completed.		

Well 124

Hillside, northeast corner of W. E. Thompson 50 acre tract, L. G. Parker Survey, 2 miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red sand and gravel- - - - -	5	6
Red and gray sandy clay- - - - -	5	11
Brown and gray sandy clay- - - - -	3	14
Brown and white sand - - - - -	5	19
Brownish black sandy clay with traces of lignite - - - - -	2	21
Green sand - - - - -	5	26
Struck water at 22 feet.		
Washing at 26 feet.		
Water level, 21 feet below top of ground, 1 hour after hole completed.		

Well 126

Flat, southwest corner of D. K. Redden 152 acre tract, M. G. Whitaker Survey, 2 1/2 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	1	3
Light brown sand - - - - -	3	6
White sand - - - - -	6	12
Struck water at 8 feet.		
Quicksand at 12 feet.		
Water level, 8 feet below top of ground, 1 hour after hole completed.		

Well 129

Slope-rolling upland, center of south line of D. A. Webb tract, Hiram Richey Survey, 3 3/4 miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Brown sand - - - - -	2	2
Redish brown sand and gravel - - - - -	4	6
Red sand - - - - -	2	8
Brown sand and gravel- - - - -	2	10

Well 129--Continued

	Thickness (feet)	Depth (feet)
Tan sand - - - - -	2	12
Tan and white sand - - - - -	2	14
Pink sand - - - - -	6	20
Tan sand - - - - -	4	24
White sand - - - - -	2	26
Yellowish brown sand - - - - -	1	27
Tan sand - - - - -	1	28
Brown sand - - - - -	2	30
Struck water at 28 feet.		
Gravel at 30 feet.		
Water level, 26 feet below top of ground, 2 hours after hole completed.		

Well 130

Hillside, northwest corner of J. W. Petty 131 acre tract, Hiram Richey Survey, 5 miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Brown sand - - - - -	1	1
Brown sand with marine fossils- - - - -	1	2
Yellowish brown sand and marine fossils - - - - -	1	3
Green sand with marine fossils- - - - -	5	9
Struck water at 9 feet.		
Hard formation below 9 feet.		
Water level, 7 feet below top of ground, 2 hours after hole completed.		

Well 133

Hillside, center of south line of Central Heights School property in southeast corner of Commercial State Bank 86 acre tract, Jno. Kirby Survey, 6 miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Red and yellow sand- - - - -	2	4
Red and gray sand- - - - -	4	8
Red, brown and gray sandy clay - - - - -	2	10
Red and gray sandy clay- - - - -	2	12
Yellow sandy clay- - - - -	1	13
Yellow and gray sandy clay	4	17
White sandy silt - - - - -	1	18
Yellow sand- - - - -	1	19
Yellow and gray sandy silt	2	21
Yellow sand- - - - -	1	22
Yellow sand and gray clay-	2	24
Brown sand - - - - -	5	29
Struck water at 24 feet.		
Washing at 29 feet.		
Water level, 23 feet below top of ground, 2 hours after hole completed.		

Logs of test wells in Nacogdoches County--Continued

Well 136
 Hilltop, southeast corner of east portion of J. H. Roberts 153 acre tract, Jno. Kirby Survey, 5 1/2 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sand and gravel- - - -	3	3
Gravel, brown sand and marine fossils - - - - -	7	10
Green sand and marine shells - - - - -	4	14
Formation too hard; moved 1/4 mile south to second location.		
Surface sand - - - - -	2	2
Tan and brown sand - - - -	5	7
Brown and white sand - - - -	1	8
Tan and white sand - - - -	2	10
Brown and white sand - - - -	1	11
Tan and white sand - - - -	1	12
White sand - - - - -	1	13
White and brown sand - - - -	1	14
White sand - - - - -	3	17
Brown sands with traces of clay - - - - -	3	20
Black sand and clay- - - -	3	23
Water at 16 feet.		
Washing at 23 feet.		
Water level, 15 feet below top of ground, 1 hour after hole completed.		

Well 138
 Hillside, southeast corner of J. M. Milard 99 acre tract, C. M. Whitaker Survey, 3 3/4 miles north of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy clay - - - - -	2	2
Red sand - - - - -	3	5
Brown sandy silt - - - - -	1	6
Red sandy silt - - - - -	3	9
Yellowish brown, sandy clay with traces of lignite - - - - -	9	18
Struck water at 15 feet.		
Washing at 18 feet.		
Water level, 8 feet below top of ground, 3 hours after hole completed.		

Well 139
 Hillside -- rolling country, center of east line of C. A. Grigsby tract, M. G. Whitaker Survey, 4 miles northwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Tan sand - - - - -	1	2
Red and brown sand - - - -	1	3
Brown sand - - - - -	2	5

Well 139--Continued

	Thickness (feet)	Depth (feet)
Brown and white sand - - -	5	10
White sand - - - - -	1	11
Tan and white sand - - - -	4	15
Redish brown and white, sandy clay - - - - -	1	16
Brown sand - - - - -	4	20
Struck water at 17 feet.		
Washing at 20 feet.		
Water level, 15 feet below top of ground, 2 hours after hole completed.		

Well 141
 Hillside, northeast corner of R. C. Castleberry tract, unnamed survey, 1 1/2 miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	6	6
Light brown sand - - - - -	2	8
Redish brown sand- - - - -	15	23
Brown sand - - - - -	1	24
Brown and white sand - - - -	2	26
Brown sand - - - - -	1	27
Black sand - - - - -	2	29
Struck water at 27 feet.		
Washing at 29 feet.		
Water level, 25 feet below top of ground, 2 hours after hole completed.		

Well 143
 Flat, near center of south 1/2 of east line of J. W. Christian 317 acre tract, H. Sibley Survey, 3 3/4 miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Light tan sand - - - - -	6	6
Brown sand - - - - -	3	9
Tan and white sand - - - -	5	14
Caving -- no water sample collected. Moved 200 yards west.		
Brown and white sandy clay	6	6
Brown sandy clay and gravel- - - - -	4	10
Brown and black sandy silt	2	12
Green sand - - - - -	1	13
Struck water at 12 feet.		
Washing at 13 feet.		
Water level, 12 feet below top of ground, 1 hour after hole completed.		

Well 154
 Flat, northeast corner of M. B. Hayter 1289 acre tract, Manuel De Los Santos Coy Survey, 5 1/2 miles west of Nacogdoches.

Logs of test wells in Nacogdoches County--Continued

Well 154--Continued

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Light tan sand - - - - -	1	3
Red and gray sandy clay - -	2	5
Brown and gray sandy clay -	3	8
Fine white sand - - - - -	4	12
Fine tan sand - - - - -	4	16
Struck water at 10 feet.		
Caving and washing at 16 feet.		
Water level, 7 feet below top of ground, 2 hours after hole completed.		

Well 157

Flat, center of north $\frac{1}{2}$ of east line of J. T. Bates 221 acre tract, Manuel De Los Santos Coy Survey, $7\frac{1}{2}$ miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Light brown sand - - - - -	2	3
Red and gray sandy clay - -	2	5
Brown and gray sandy clay -	3	8
Red and gray sandy clay - -	1	9
Brown and gray sandy clay -	1	10
Gray sand - - - - -	2	12
Black sandy clay - - - - -	4	16
Greenish black sand - - - -	7	23
Struck water at 22 feet.		
Washing at 23 feet.		
Water level, 21 feet below top of ground, 1 hour after hole completed.		

Well 180

Flat, southeast corner of W. P. Norton 104 acre tract, John Durst Survey, 11 miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface soil - - - - -	1	1
Red gravel - - - - -	5	6
Rock. Formation too hard.		
No water sample collected.		

Well 183

Hillside, center of west line of M. M. Castleberry 60 acre tract, J. H. Davis Survey, 9 miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red and white clay - - - - -	2	2
Red clay - - - - -	1	3
Red and white clay - - - - -	3	6
Brown clay - - - - -	1	7
White and brown clay - - - -	3	10
Red and white sand - - - - -	5	15
White sand - - - - -	3	18
Red gravel - - - - -	3	21

Well 183--Continued

Struck water at 15 feet.
Gravel at 21 feet.
Water level, 15 feet below top of ground,
3 hours after hole completed.

Well 186

Flat, center of west line of W. L. Johnson 100 acre tract, J. M. Esparta Survey, $7\frac{1}{2}$ miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red clay - - - - -	4	5
Red and white clay - - - - -	6	11
Red and white sand - - - - -	6	17
White clay - - - - -	4	21
White sand - - - - -	3	24
Red and white clay - - - - -	4	28
Struck water at 24 feet.		
Hard, slippery clay at 28 feet.		
Water level, 24 feet below top of ground, 3 hours after hole completed.		

Well 188

Hillside, at Alazan in church yard, R. Hotchkiss Survey, 7 miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Yellow sand - - - - -	2	3
Yellow and white sand - - -	4	7
Red sand - - - - -	3	10
Yellow clay - - - - -	1	11
Yellow and white clay - - -	5	16
Struck water at 9 feet.		
Caving at 16 feet.		
Water level, 7 feet below top of ground, 2 hours after hole completed.		

Well 189

Ridge top, southeast corner of J. Mundy 56 acre tract, R. Hotchkiss Survey, 6 miles west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Redish brown sand - - - - -	10	11
Tan sand - - - - -	3	14
Redish brown sand - - - - -	1	15
Tan and white sand - - - - -	1	16
Redish brown sand - - - - -	2	18
Redish brown sand and pink clay - - - - -	1	19
Tan and pink sand - - - - -	2	21
Brown and white sand - - - -	1	22
Brown sand with pink and gray clay - - - - -	2	24
Brown sand - - - - -	1	25

Logs of test wells in Nacogdoches County--Continued

Well 189--(Continued)

	Thickness (feet)	Depth (feet)
Tan sand - - - - -	1	26
Brown sand - - - - -	1	27
Tan sand - - - - -	5	32
Tan and white sand - - - - -	4	36
Struck water at 36 feet.		
Caving at 36 feet.		
Water level, 36 feet below top of ground, 2 hours after hole completed.		

Well 190

Flat, center of Jno. Montes 135 acre tract,
J. M. Esparta Survey, 6 1/2 miles west of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface soil - - - - -	4	4
Red and white sand - - - - -	4	8
Brown and white sand - - - - -	4	12
Yellow sand - - - - -	5	17
Brown and white sand - - - - -	7	24
Struck water at 23 feet.		
Caving at 24 feet.		
Water level, 23 feet below top of ground, 1 hour after hole completed.		

Well 192

Hillside, southwest corner of W. T. Levy
84 acre tract, J. M. Esparta Survey, 6 1/2
miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	5	7
Brown sand - - - - -	3	10
Struck water at 6 feet.		
Caving at 10 feet.		
Water level, 6 feet below top of ground, 1 hour after hole completed.		

Well 193

Flat -- bottom land, southwest corner of
T. Montes 74 acre tract, J. Gonzales Sur-
vey, 5 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	2	4
Brown and white sand - - - - -	6	10
Struck water at 7 feet.		
Washing at 10 feet.		
Water level, 5 feet below top of ground, 1 hour after hole completed.		

Well 196

Hilltop, center of south line of G. W. Til-
lory 100 acre tract, Jose Luis De Labega
Survey, 2 miles southwest of Nacogdoches.

Well 196--Continued

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	6	6
Tan sand - - - - -	1	7
Red and white sand - - - - -	3	10
Red sand - - - - -	9	19
Brown and white sand - - - - -	10	29
Redish brown and white sand - - - - -	2	31
Brown and white sand - - - - -	2	33
Tan sand - - - - -	2	35
Redish brown and white sand - - - - -	1	36
Tan sand - - - - -	12	48
Light brown sand - - - - -	9	57
Pink sand - - - - -	5	62
Tan sand - - - - -	7	69
White sand - - - - -	2	71
Tan sand - - - - -	4	75
Struck water at 71 feet.		
Caving at 75 feet.		
Water level, 71 feet below top of ground, 1 hour after hole completed.		

Well 197

Flat, near center of A. J. Spradley 108
acre tract, Jose Luis De La Bega Survey,
2 3/4 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Red sandy clay - - - - -	3	5
Light brown and gray sandy clay - - - - -	7	12
Redish brown sand - - - - -	5	17
Tan sand - - - - -	4	21
Tan and white sand - - - - -	3	24
Struck water at 21 feet.		
Washing at 24 feet.		
Water level, 21 feet below top of ground, 22 hours after hole completed.		

Well 200

Hillside, southwest corner of B. Grubs 27
acre tract, near center of Jose Luis De
La Bega Survey, 2 1/4 miles southwest of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	5	5
Red sand - - - - -	2	7
Red and white sand - - - - -	4	11
Brown and white clay - - - - -	3	14
Pink and white clay - - - - -	3	17
Red and yellow clay - - - - -	2	19
Pink and white sand - - - - -	3	22
White clay - - - - -	1	23
Brown sand - - - - -	4	27
White sand - - - - -	3	30

Logs of test wells in Nacogdoches County--Continued

Well 200--Continued

	Thickness (feet)	Depth (feet)
White sand with streaks of tan sand - - - - -	9	39
Struck water at 39 feet. Caving at 39 feet. Water level, 38½ feet below top of ground, 2 hours after hole completed.		

Well 201

Flat, northeast corner of J. Henson 45 acre tract, Jose Luis De La Bega Survey, 1¼ miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	3	5
Tan and white sand - - - -	4	9
Light brown sand - - - - -	3	12
Brown and white sand - - -	5	17
Struck water at 15 feet. Caving at 17 feet. Water level, 12 feet below top of ground, 20 hours after hole completed.		

Well 202

Hilltop, northwest corner of R. B. Bowen tract, J. L. Booder Survey, 1 mile west of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Tan sand - - - - -	9	12
Tan and white sand - - - -	5	17
Brown sand - - - - -	1	18
Brown and white sand - - -	6	24
Struck water at 19 feet. Caving at 24 feet. Water level, 16½ feet below top of ground, 3 hours after hole completed.		

Well 210

Flat hilltop, northeast corner of W. B. Rusk tract, northeast corner of Jose Luis De La Bega Survey, 1 mile southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Redish brown sand - - - - -	8	10
Brown sand - - - - -	2	12
Tan sand - - - - -	3	15
Tan and white sand - - - -	7	22
Gray clay - - - - -	3	25
Tan and white sand - - - -	4	29
Struck water at 27 feet. Washing at 29 feet. Water level, 25 feet below top of ground, 1 hour after hole completed.		

Well 211

Hilltop, northeast corner of Wm. Cox 136 acre tract, Jose Luis De La Bega Survey, 1 mile south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Brown sand and gravel - - -	4	5
Yellowish brown sand - - -	3	8
Bluish green sand - - - - -	5	13
Struck water at 10 feet. Hard formation at 13 feet. Water level, 8 feet below top of ground, 1 hour after hole completed.		

Well 212

Slope, southeast corner of R. Lindsey 56 acre tract, Jose Luis De La Bega Survey, 2½ miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Light brown sand - - - - -	2	5
Brown sand - - - - -	1	6
Red and gray sand - - - - -	2	8
Brown and gray sand - - - -	1	9
Redish brown and gray sand	1	10
Brown sand - - - - -	2	12
Brown and gray sand - - - -	2	14
White and tan sand - - - -	6	20
Struck water at 18 feet. Caving at 20 feet. Water level, 15 feet below top of ground, 2 hours after hole completed.		

Well 213

Slight slope -- rolling upland, center of Marvin Lewis 650 acre tract, P. J. Esparza Survey, 3¼ miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Brown, sandy silt - - - - -	1	2
Red and brown sandy clay -	9	11
Tan and white sand - - - -	7	18
Struck water at 14 feet. Caving at 18 feet. Water level, 11 feet below top of ground, 2 hours after hole completed.		

Well 214

Slope -- rolling upland, center of south line of Hy. Hoya 1100 acre tract, Nepomuceno Survey, 4½ miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Tan and gray sand - - - - -	4	7
Tan sand and layers of gray clay - - - - -	2	9

Logs of test wells in Nacogdoches County--Continued

Well 214--Continued

	Thickness (feet)	Depth (feet)
Tan and gray sand - - - - -	6	15
Struck water at 14 feet.		
Caving at 15 feet.		
Water level, 12 feet below top of ground, 2 hours after hole completed.		

Well 215

Flat -- upland, southeast corner of J. Boozer 152 acre tract, Nepomuceno Survey, 5 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Redish brown sand - - - - -	4	7
Red sand - - - - -	8	15
Tan sand - - - - -	3	18
Tan and white sand - - - - -	5	23
Tan sand - - - - -	8	31
Tan and white sand - - - - -	2	33
Struck water at 31 feet.		
Caving at 33 feet.		
Water level, 27 feet below top of ground, 3 hours after hole completed.		

Well 216

Flat, northeast corner of Jno. Schmidt 496 acre tract, Nepomuceno Survey, 5 1/2 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	3	5
Tan and white sand - - - - -	8	13
White sand - - - - -	1	14
Tan sand - - - - -	1	15
Struck water at 14 feet.		
Washing at 15 feet.		
Water level, 13 feet below top of ground, 2 hours after hole completed.		

Well 218

Flat, center of east line of H. T. Mast 70 acre tract, Nepomuceno Survey, 4 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	5	7
Brown sand - - - - -	2	9
Light tan and white sand - - - - -	8	17
Brown and white sand - - - - -	3	20
Struck water at 15 feet.		
Washing at 20 feet.		
Water level, 14 feet below top of ground, 3 hours after hole completed.		

Well 220

Hillside, near center of east 1/2 of east 1/2 of H. Hoya 60 acre tract, Nepomuceno Survey, 3 1/4 miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Tan sand - - - - -	1	3
Tan and white sand - - - - -	3	6
Brown sand and gravel - - - - -	4	10
Green sand - - - - -	2	12
Struck water at 10 feet.		
Hard formation at 12 feet.		
Water level, 9 feet below top of ground, 1 hour after hole completed.		

Well 221

Hillside, near center of southwest 1/4 of J. M. Martinez Survey, 2 1/4 miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Yellow sand - - - - -	2	5
Red and white sand - - - - -	3	8
Yellow and white sand - - - - -	3	11
Red and white sand - - - - -	5	16
Pink sand - - - - -	1	17
Red and white clay - - - - -	1	18
Pink and white sand - - - - -	3	21
Yellow and white sand - - - - -	2	23
White sand - - - - -	7	30
Yellow and white sand - - - - -	2	32
White sand - - - - -	5	37
Yellow and white sand - - - - -	1	38
White sand - - - - -	2	40
Tan sand - - - - -	9	49
White sand - - - - -	5	54
Struck water at 53 feet.		
Caving at 54 feet.		
Water level, 53 feet below top of ground, 1 hour after hole completed.		

Well 222

Slope, northeast corner of D. Ferguson tract, T. Montgomery Survey, 2 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Fine white sand - - - - -	2	2
Brown and white sand - - - - -	5	7
White sand - - - - -	1	8
Brown and white sand - - - - -	2	10
Tan sand - - - - -	1	11
White sand - - - - -	1	12
Tan and white sand - - - - -	6	18
Struck water at 11 feet.		
Caving at 18 feet.		
Water level, 8 feet below top of ground, 2 hours after hole completed.		

Logs of test wells in Nacogdoches County--Continued

Well 223

Slope, northeast corner of R. Mason 52 acre tract, Ant. Ariola Survey, 2 $\frac{3}{4}$ miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Tan sand - - - - -	5	6
Brown and white sand - - -	4	10
Brown sand - - - - -	2	12
White and tan sand - - - -	2	14
Struck water at 13 feet.		
Caving at 14 feet.		
Water level, 12 feet below top of ground, 1 hour after hole completed.		

Well 224

Flat, southwest corner of S. Smith tract, Vital Flores Survey, 4 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Redish brown sand- - - - -	5	8
Tan sand - - - - -	6	14
Struck water at 3 feet.		
Hard clay at 14 feet.		
Water level, 7 feet below top of ground, 1 hour after hole completed.		

Well 225

Hillside, center of north line of E. Muckelroy 175 acre tract, Vital Flores Survey, 4 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sand and gravel- - - -	2	2
Redish brown and gray clay	4	6
Brown and gray clay- - - -	3	9
Black sandy clay - - - - -	1	10
Black sand - - - - -	2	12
Black sand and clay- - - -	4	16
Grayish black bentonitic clay - - - - -	18	34
Struck water at 33 feet.		
Hard slippery clay below 34 feet.		
Water level, 31 feet below top of ground, 2 hours after hole completed.		

Well 227

Hilltop, southeast corner of east line of R. Bowden 175 acre tract, N. G. Herrera Survey, 6 $\frac{1}{2}$ miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy clay and gravel-	3	3
Red and gray clay- - - - -	2	5
Gray clay- - - - -	3	8
Chocolate and gray clay- -	8	16

Well 227--Continued

	Thickness (feet)	Depth (feet)
Brown and chocolate clay -	2	18
Green sandy silt - - - - -	1	19
Struck water at 14 feet.		
Solid rock below 19 feet.		
Water level, 13 feet below top of ground, 1 hour after hole completed.		

Well 229

Flat, northwest corner of F. Simpson 100 acre tract, Pedro Procella Survey, 6 $\frac{1}{2}$ miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Yellow sand- - - - -	4	4
Red and white clay - - - -	5	9
Brown and white clay - - -	3	12
Red gravel - - - - -	1	13
Red and white clay - - - -	1	14
Red gravel - - - - -	5	19
Water at 17 feet.		
Solid rock below 19 feet.		
Water level, 17 feet below top of ground, 3 hours after hole completed.		

Well 231

Hillside, northwest corner of G. W. Matthews 100 acre tract, Jose Maria Moria Survey, 9 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Brown sand - - - - -	2	2
Red clay - - - - -	2	4
Brown clay - - - - -	4	8
Brown gravel - - - - -	3	11
Blue sand- - - - -	1	12
Hard blue rock - - - - -	$\frac{1}{2}$	12 $\frac{1}{2}$
No water sample collected.		

Well 233

Ridge top, south corner of B. C. Mast 38 acre tract, Jose Maria Moria Survey, 10 $\frac{1}{2}$ miles southeast of Nacogdoches

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	4	4
Yellowish brown sand - - -	5	9
Brown and white clay - - -	3	12
Brown clay - - - - -	1	13
Dark brown sandy clay- - -	4	17
Yellowish sand - - - - -	2	19
Brown and white sand - - -	1	20
White and gray sand- - - -	3	23
Gray sand- - - - -	3	26
Gray and white sandy clay-	1	27
Gray sand- - - - -	4	31
Struck water at 28 feet.		
Washing at 31 feet.		

Logs of test wells in Nacogdoches County--Continued.

Well 233--Continued

Water level, 27 feet below top of ground, 3 hours after hole completed.

Well 235

Hilltop, center of west line of J. M. Moody 30 acre tract, D. Thomson Survey, 9 1/2 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	5
Red sand - - - - -	2	5
Red and white sand - - - -	2	7
Red sand - - - - -	1	8
Yellow sand- - - - -	1	9
Yellow and white sand- - -	2	11
Strawberry sand- - - - -	3	14
White sand - - - - -	1	15
Brown sand - - - - -	3	18
Brown and white sand - - -	2	20
Red and white clay - - - -	2	22

Struck water at 19 feet.

Washing at 22 feet.

Water level, 20 feet below top of ground, 3 hours after hole completed.

Well 239

Hillside, north corner of church tract, Ant. Chireno Survey, 12 1/2 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Yellow and white sand- - -	6	8
Red and white sand - - - -	4	12
Yellow and white sand- - -	2	14
Red and white sand - - - -	1	15
Brown and white sand - - -	5	20
Red and white clay - - - -	2	22
Red clay - - - - -	3	25

Struck water at 22 feet.

Hard slippery clay at 25 feet.

Water level, 22 feet below top of ground, 3 hours after hole completed.

Well 243

Flat, southwest corner of W. A. Thurston 100 acre tract, Jose Ignacio Ybarbo Survey, 16 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Brown sand and gravel- - -	2	3
Red clay and gravel- - - -	2	5
Red and gray sandy silt- -	4	9
Brown sandy silt - - - - -	5	14
Red and gray sand- - - - -	4	18
Brown and gray sand- - - -	1	19
Brown sand - - - - -	5	24

Well 243--Continued

Struck water at 16 feet.

Washing at 24 feet.

Water level, 14 feet below top of ground, 4 hours after hole completed.

Well 256

Hillside, center of east 1/2 of north line of Mrs. Allie Smith 300 acre tract, Jose Ignacio Ybarbo & Bros. Survey, 2 1/2 miles east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red clay - - - - -	2	2
Yellow clay- - - - -	1	3
White sand - - - - -	1	4
Red clay - - - - -	3	7
Red and white clay - - - -	2	9
Brown clay - - - - -	7	16
Blue clay- - - - -	7	23

Struck water at 13 feet.

Hard slippery clay at 23 feet.

Water level, 13 feet below top of ground, 1 hour after hole completed.

Well 263

Valley floor -- flat, center of north line of J. W. McBride 53 acre tract, Ant. Chireno Survey, 11 1/2 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red and gray clay- - - - -	2	3
Yellow and gray clay - - -	1	4
Yellow and gray sand - - -	3	7
Gray sand- - - - -	2	9
Chocolate sand - - - - -	2	11
Black sandy clay - - - - -	3	14

Struck water at 10 feet.

Hard clay below 14 feet.

Water level, 10 feet below top of ground, 1 hour after hole completed.

Well 264

Hillside, center of south line of Angelina County Lumber Company 330 acre tract, Jose Antonio Chrino Survey, 15 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sandy gravel - - - - -	2	2
Brown and white clay - - -	2	4
White clay - - - - -	1	5
Brown and white clay - - -	2	7
Blue and white clay- - - -	4	11
Brown and white clay - - -	3	14
Blue clay- - - - -	4	18

Struck water at 17 feet.

Logs of test wells in Nacogdoches County--Continued.

Well 264--Continued

Hard, slippery clay below 18 feet.
Water level, 16½ feet below top of ground,
¼ hour after hole completed.

Well 265

Hillside, near center of north ½ of west
line of Wm. Cameron & Co., Inc., 2816 acre
tract, Jesus Gomez Survey, 15½ miles south-
east of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sand - - - - -	2	2
Red clay - - - - -	1	3
Red and white clay - - - -	2	5
Brown and white clay - - - -	2	7
Brown and yellow clay - - - -	4	11
Brown and blue clay - - - -	2	13
Brown and yellow clay - - - -	4	17
Brown clay - - - - -	7	24
Brown and blue clay - - - -	3	27
Brown gravel - - - - -	2	29

Struck water at 29 feet.
Hard formation below 29 feet.
Water level, 28½ feet below top of ground,
½ hour after hole completed.

Well 268

Flat, northwest corner of G. H. Meisen-
heimer 176 acre tract, Jose Maria Moria
Survey, 13 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface clay - - - - -	2	2
Yellow clay and sand - - - -	3	5
Yellow and gray clay and sand - - - - -	2	7
Yellow sand - - - - -	1	8
Yellow and gray sand - - - -	3	11
White sand - - - - -	3	14
Yellow and gray sand - - - -	3	17
Chocolate gumbo - - - - -	2	19
Gray sand - - - - -	1	20

Struck water at 19 feet.
Washing at 20 feet.
Water level, 16 feet below top of ground,
3 hours after hole completed.

Well 269

Flat, northeast corner of S. D. Sims 69
acre tract, Jose Maria Moria Survey, 11
miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red and gray clay - - - - -	2	3
Brown and gray clay - - - -	6	9
Gray sand - - - - -	3	12
Yellow and gray clay - - - -	1	13

Well 269--Continued

	Thickness (feet)	Depth (feet)
Yellow sand - - - - -	1	14

Struck water at 11 feet.
Washing at 14 feet.
Water level, 10 feet below top of ground,
2 hours after hole completed.

Well 270

Flat, near center south 1/3 of east line
of Mrs. F. Smith 145 acre tract, Jose
Maria Moria Survey, 11 miles southeast of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Yellow sand - - - - -	2	3
Yellow and gray clay - - - -	6	9
Brown sand - - - - -	1	10
Yellow and gray clay - - - -	1	11
Yellow clay - - - - -	2	13
Yellow and gray clay - - - -	3	16
Blue clay - - - - -	6	22
Brown clay - - - - -	2	24

Struck water at 24 feet.
Hard, slippery clay below 24 feet.
Water level, 23½ feet below top of ground,
2 hours after hole completed.

Well 276

Hilltop, near center of north ½ of west
line of John Schmidt 550 acre tract, J.
Mora Survey, 7½ miles southeast of Nacog-
doches.

	Thickness (feet)	Depth (feet)
White sand - - - - -	1	1
Red and white sand - - - -	4	5
Yellow and white sand - - - -	3	8
Red and white clay - - - -	2	10
White clay - - - - -	2	12
White sand - - - - -	5	17
Red gravel - - - - -	2	19
Red and white sand - - - -	5	24

Struck water at 20 feet.
Washing at 24 feet.
Water level, 20 feet below top of ground,
3 hours after hole completed.

Well 279

Ridge top, near northwest corner of A. T.
Mast 33 acre tract, Nepomuceno Survey, 5½
miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Reddish brown sand - - - - -	2	2
Tan sand - - - - -	2	4
Tan and brown sand - - - - -	1	5

Logs of test wells in Nacogdoches County--Continued.

Well 279--Continued

	Thickness (feet)	Depth (feet)
Tan sand - - - - -	1	6
White sand - - - - -	1	7
Tan sand - - - - -	9	16
Tan and white sand - - - -	7	23
Struck water at 18 feet.		
Hard formation below 23 feet.		
Water level, 17 feet below top of ground, 1 hour after hole completed.		

Well 280

Flat, southeast corner of W. M. Sparks 84 acre tract, Andres Bermea Survey, 6 1/2 miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface and white sand - -	3	3
Tan sand - - - - -	2	5
Tan and white sand - - - -	2	7
Light brown sand - - - - -	1	8
Tan sand - - - - -	3	11
Gray sand - - - - -	3	14
Gray and tan sand - - - - -	3	17
Struck water at 13 feet.		
Caving and washing at 17 feet.		
Water level, 12 feet below top of ground, 1 hour after hole completed.		

Well 281

Flat, southwest corner of Lilly C. Skillern, et al, 106 acre tract, Andres Bermea Survey, 7 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Brown sand - - - - -	6	7
Redish brown sand - - - - -	5	12
Brown sand - - - - -	6	18
Brown sand and gravel - - -	1	19
Tan sand - - - - -	3	22
Tan sand and gray clay - -	1	23
Tan sand - - - - -	4	27
Tan sand and clay - - - - -	1	28
Fine white sand - - - - -	1	29
Tan sand and gray clay - -	3	32
Tan sand and white sand - -	13	45
Tan and white sand and gray clay - - - - -	1	46
White sand - - - - -	6	52
Tan sand - - - - -	5	57
White and brown sand and gray clay - - - - -	2	59
Tan sand - - - - -	5	64
Struck water at 59 feet.		
Caving at 64 feet.		
Water level, 58 feet below top of ground, 1 hour after hole completed.		

Well 282

Flat, center of north 1/2 of west line of L. D. Pitts 50 acre tract, J. M. Esparza Survey, 8 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Tan sand - - - - -	6	7
Brown sand - - - - -	5	12
Tan and white sand - - - -	5	17
Light brown sand - - - - -	2	19
Struck water at 17 feet.		
Washing at 19 feet.		
Water level, 15 1/2 feet below top of ground, 2 hours after hole completed.		

Well 286

Hilltop, southwest corner of A. T. Mast 227 acre tract, Thos. Lambert Survey, 10 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Yellow sand - - - - -	3	5
Yellow and gray sand - - -	2	7
Gray sand - - - - -	1	8
Brownish yellow sand - - -	4	12
Yellow, sandy clay - - - -	1	13
Yellow sand - - - - -	1	14
White and brown sand - - -	3	17
Gray and brownish red sand	2	19
Gray and yellow sand - - -	7	26
Yellow and white sand with some gravel and streaks of clay	6	32
Struck water at 31 feet.		
Washing at 32 feet.		
Water level, 30 1/2 feet below top of ground, 1/2 hour after hole completed.		

Well 287

Flat -- bottom land, near center of west 1/2 of J. D. Jumper 777 acre tract, Thos. Lambert Survey, 10 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Grayish brown sand and gravel - - - - -	2	4
Yellow clay - - - - -	1	5
Sand and gravel - - - - -	4	9
Struck water at 6 feet.		
Washing at 9 feet.		
Water level, 4 feet below top of ground, 1/2 hour after hole completed.		

Logs of test wells in Nacogdoches County--Continued.

Well 288

Flat, southeast corner of G. A. Blount 259 acre tract, J. Y. Acosta Survey, 10 $\frac{1}{2}$ miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red surface sand - - - - -	1	1
Red, brown and white sandy clay - - - - -	6	7
Brown and white sand - - -	3	10
Tan sand - - - - -	5	15
Brown sand and gravel- - -	4	19
Brown sand - - - - -	3	22
Brown sand and gray clay -	1	23
White sand and gray clay -	2	25
White sand - - - - -	3	28
Gray clay- - - - -	1	29
Tan sand - - - - -	1	30
Brown sand and gray clay -	1	31
White and tan sand - - - -	2	33
Struck water at 33 feet.		
Caving at 33 feet.		
Water level, 33 feet below top of ground, 2 hours after hole completed.		

Well 289

Flat -- bottom land, southeast corner of Guy Blount 105 acre tract, J. Y. Acosta Survey, 8 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red sand - - - - -	4	5
Tan and white sand - - - -	2	7
Redish brown and gray sandy clay - - - - -	3	10
Brown and gray sandy clay--	2	12
Brown sand - - - - -	4	16
Greenish brown sand- - - -	2	18
Struck water at 12 feet.		
Washing at 18 feet.		
Water level, 8 $\frac{1}{2}$ feet below top of ground, 2 hours after hole completed.		

Well 291

Flat -- bottom land, northeast corner of Daido Ramus 114 acre tract, Vincent Michelli Survey, 9 miles southwest of Nacogdoches.

	Thickness (feet)	Depth (feet)
Brown sandy silt - - - - -	5	5
Brown and white sand - - -	1	6
Brown and white sandy clay	5	11
Brown sand - - - - -	1	12
Brown and gray sandy clay--	2	14
White sand - - - - -	2	16
Tan and white sand - - - -	1	17
Tan sand - - - - -	2	19

Well 291--Continued

	Thickness (feet)	Depth (feet)
White sand - - - - -	1	20
Brown sand and gravel- - -	3	23
Struck water at 22 $\frac{1}{2}$ feet.		
Washing at 23 feet.		
Water level, 22 feet below top of ground, 2 hours after hole completed.		

Well 292

Hillside, northwest corner of Lulia R. Turner 628 acre tract, Genio Ramires Survey, 7 $\frac{1}{2}$ miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Blue clay- - - - -	1	1
Yellow and white clay- - -	2	3
Yellow and blue clay - - -	4	7
Brown and blue clay- - - -	4	11
Struck rock and moved 200 yards east.		
Surface sand - - - - -	1	1
Red clay and sand- - - - -	2	3
Red sand - - - - -	2	5
Red sandy gravel - - - - -	2	7
Red clay - - - - -	1	8
Yellow sand- - - - -	3	11
Yellow and white sand- - -	1	12
Yellow sand- - - - -	3	15
Yellow sandy clay- - - - -	4	19
Yellow and white sand- - -	3	22
White sand - - - - -	5	27
Struck water at 26 feet.		
Washing at 27 feet.		
Water level, 23 feet below top of ground, $\frac{1}{2}$ hour after hole completed.		

Well 294

Hillside, northeast corner of Z. H. Cox 80 acre tract, Juan Mora Survey, 9 $\frac{1}{2}$ miles south of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Red clay - - - - -	2	4
Red and white sandy clay -	2	6
Red and white sand - - - -	3	9
Struck water at 7 feet.		
Washing at 9 feet.		
Water level, 5 feet below top of ground, 1 hour after hole completed.		

Well 301

Flat, center of E. H. Blount 927 acre and Jennie B. Holmes 129 acre tracts, Jesus Gomez Survey, 15 miles southeast of Nacogdoches.

Logs of test wells in Nacogdoches County--Continued.

Well 301--Continued

	Thickness (feet)	Depth (feet)
Red sand - - - - -	2	2
Red gravel - - - - -	2	4
Yellow and blue clay - - -	3	7
Yellow and white clay - - -	1	8
Yellow and blue clay - - -	2	10
Brown and white clay - - -	2	12
Brown clay - - - - -	1	13
Blue and brown clay - - - -	2	15
Brown and white sand - - -	2	17
White sand - - - - -	1	18
Gray sand - - - - -	1	19
Yellow and white sand - - -	1	20
Yellow and brown sand - - -	2	22
Blue and red sandy clay - -	6	28

Struck water at 26 feet.
Hard clay below 28 feet.
Water level, 26 $\frac{1}{2}$ feet below top of ground,
 $\frac{1}{2}$ hour after hole completed.

Well 302

Flat, center of north line of Mary B.
Thomas 15⁰ acre tract, Jose Maria Moria
Survey, 15 miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	2	2
Yellow and gray sand - - -	3	5
Yellow sand - - - - -	1	6
Brown and gray gumbo - - -	3	9
Yellow and gray sand - - -	4	13
Yellow sand - - - - -	3	16

Struck water at 16 feet.
Washing below 16 feet.
Water level, 8 feet below top of ground,
1 hour after hole completed.

Well 304

Hillside, near center of south line of
Frost Lumber Industries 4228 acre tract,
Abraham Kuykendall Survey, 17 $\frac{1}{2}$ miles
southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	1	1
Red gravel and clay - - - -	5	6
Yellow and white clay - - -	2	8
Red and white clay - - - -	2	10
Yellow clay - - - - -	1	11
Red and yellow clay - - - -	3	14
Red and white clay - - - -	1	15
Yellow and white clay - - -	4	19

Struck water at 18 feet.
Hard, slippery clay below 19 feet.
Water level, 18 feet below top of ground,
 $\frac{1}{2}$ hour after hole completed.

Well 306

Flat, southeast corner of Frost Lumber
Industries 640 acre tract, Abraham Kuy-
kendall Survey, 19 $\frac{1}{2}$ miles southeast of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sand - - - - -	1	1
Red clay - - - - -	4	5
Blue clay - - - - -	5	10
Red gravel - - - - -	1	11
Gray and white clay - - - -	4	15
Brown clay - - - - -	1	16
Brown and blue clay - - - -	5	21
Blue rock - - - - -	1	22

Formation too hard.
No water sample collected.

Well 307

Hillside, near center of Frost Lumber
Industries 1264 acre tract, Abraham Kuy-
kendall Survey, 17 $\frac{1}{2}$ miles southeast of
Nacogdoches.

	Thickness (feet)	Depth (feet)
Red clay - - - - -	3	3
Red and white clay - - - -	1	4
Brown and yellow clay - - -	3	7
Brown and red clay - - - -	3	10
Brown and yellow clay - - -	8	18
Chocolate brown clay - - -	4	22
Brown and red clay - - - -	3	25
Brown sand and gravel - - -	2	27

Struck water at 27 feet.
Hard formation below 27 feet.
Water level, 26 feet below top of ground,
 $\frac{1}{2}$ hour after hole completed.

Well 308

Flat, center of north line of Frost Lum-
ber Industries 300 acre tract, Joel Wel-
ker Survey, 19 $\frac{1}{2}$ miles southeast of Nacog-
doches.

	Thickness (feet)	Depth (feet)
Yellow clay - - - - -	1	1
Brown clay - - - - -	2	3
Brown and yellow clay - - -	2	5
Brown and white clay - - -	1	6
White sandy clay - - - - -	1	7
Red and white clay - - - -	1	8
Blue and white clay - - - -	4	12
Red gravel - - - - -	1	13
Brown and white sandy clay	3	16
Red and blue gravel - - - -	1	17
Red and white gravel and clay - - - - -	4	21

Struck water at 21 feet.

Logs of test wells in Nacogdoches County--Continued

Well 308--Continued

Hard formation below 21 feet.
Water level, 19 $\frac{1}{2}$ feet below top of ground,
1 $\frac{1}{4}$ hours after hole completed.

Well 313

Flat, southwest corner of Frost Lumber Industries 80 acre tract, Nancy Stripling Survey, 20 $\frac{1}{2}$ miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red clay - - - - -	4	4
Red and white clay - - - -	5	9
Brown clay - - - - -	6	15
Brown and white clay - - - -	2	17
Brown sand - - - - -	2	19
Yellow and brown sand - - - -	2	21
Rock. Formation too hard.		
No water sample collected.		

Well 315

Flat, center of east $\frac{1}{2}$ of Frost Lumber Industries tract #20, I. & G. N. R. R. Survey, 22 $\frac{1}{2}$ miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Red sand - - - - -	2	2
Red and white clay - - - -	5	7
Yellow and white clay - - - -	3	10
White sand - - - - -	3	13
Red and white sand, gravel - - - -	3	16
Struck water at 14 feet.		
Hard gravel below 16 feet.		
Water level, 14 feet below top of ground, 1 hour after hole completed.		

Well 316

Flat, near center of west line of Frost Lumber Industries 640 acre tract #22, I. & G. N. R. R. Survey, 23 $\frac{1}{2}$ miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Brown sand - - - - -	3	3
Brown and white sand - - - -	4	7
Red and white sand - - - -	2	9
Gray sand - - - - -	2	11
Gray and white sand - - - -	3	14
Struck water at 12 feet.		

Well 316--Continued

Washing at 14 feet.
Water level, 12 feet below top of ground,
1 hour after hole completed.

Well 317

Flat, center of southwest line of Ben T. Brown 314 acre tract, T. T. Brown Survey, 23 $\frac{1}{2}$ miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Brown sand - - - - -	2	2
Brown and white sand - - - -	2	4
Red and white sand - - - -	3	7
Brown and white sand - - - -	1	8
Red sand and gravel - - - -	1	9
Red and white sand and gravel - - - - -	2	11
Yellow and white sand - - - -	6	17
Struck water at 16 $\frac{1}{2}$ feet.		
Caving at 17 feet.		
Water level, 16 $\frac{1}{2}$ feet below top of ground 1 hour after hole completed.		

Well 318

Hillside, northeast corner of Angelina County Lumber Company 160 acre tract Wm. H. Whitton Survey, 25 $\frac{1}{2}$ miles southeast of Nacogdoches.

	Thickness (feet)	Depth (feet)
Surface sand - - - - -	3	3
Red and white sand - - - -	3	6
Brown sandy clay - - - - -	3	9
White sandy clay - - - - -	2	11
Red and white clay - - - -	3	14
Red clay - - - - -	1	15
Blue clay - - - - -	6	21
Red and blue clay - - - -	4	25
Blue and white clay - - - -	3	28
Struck water at 27 feet.		
Hard, slippery clay at 28 feet.		
Water level, 27 feet below top of ground. $\frac{1}{2}$ hour after hole completed.		

Partial analyses of water from wells in Nacogdoches 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	-	3,000	Sept. 12, 1936	1,056	10	4	429	976	36	97	42
2	J.D. Weaver	35	do.	77	-	-	-	31	17	18	-
3	Mrs. John Lucas Spring		do.	83	-	-	-	18	34	13	-
5	Art Cranford	30	Sept. 4, 1936	48	-	-	-	24	12	7	-
6	T. & N.O. Ry. Co. Spring		Sept. 8, 1936	45	7	2	8	31	a/	13	26
7	J.P. Furra	34	Sept. 4, 1936	116	-	-	-	12	48	24	-
8	W.P.A. test well	23	Sept. 11, 1936	32	-	-	-	12	a/	14	-
9	A.J. Mason	52	Sept. 8, 1936	52	-	-	-	18	10	15	-
10	W.P.A. test well	25	Sept. 9, 1936	54	8	-	11	12	15	14	21
11	do.	15	Sept. 10, 1936	65	6	-	17	12	19	17	16
12	Mrs. C.P. Wallace	21	Aug. 27, 1936	58	-	-	-	6	8	27	-
13	W.P.A. test well	19	Sept. 10, 1936	38	-	-	-	6	a/	21	-
14	W.D. Baxter	25	Sept. 3, 1936	60	-	-	-	37	a/	19	-
15	U. Cornelius	41	Sept. 8, 1936	207	7	9	55	6	48	85	56
16	B.A. Birdwell	48	do.	72	-	-	-	6	21	24	-
17	L.S. King	42	Sept. 4, 1936	33	4	-	9	24	a/	8	11
18	Cariker and Lacey	320	do.	91	1	2	30	31	27	16	10
19	L.L. Ivy	21	Aug. 21, 1936	280	26	20	52	67	12	137	148
20	Ocie Denney	39	Sept. 8, 1936	60	5	2	14	12	12	21	21
21	T.B. Fountain	31	do.	32	-	-	-	12	a/	14	-
22	W.P.A. test well	26	do.	50	-	-	-	6	11	19	-
23	J.A. Brewer	30	do.	246	-	-	-	43	12	124	-
24	A. Birdwell	Spring	Sept. 1, 1936	37	-	-	-	12	a/	17	-
25	M.D. Shofner	17	Sept. 3, 1936	53	8	-	12	24	8	13	21
26	J.D. Birdwell	31	do.	62	-	-	-	12	8	26	-
27	Mrs. Nellie Acrey	20	Sept. 7, 1936	57	6	2	13	12	15	16	21
28	W.P.A. test well	29	do.	5,869	562	397	970	-	2,930	1,010	2,333
29	Goldberry & Judkins	23	Sept. 8, 1936	51	-	-	-	6	15	16	-
30	J. H. Crenshaw	27	Aug. 21, 1936	137	-	-	-	18	10	69	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Nacogdoches 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)
31	A.M. McMillan	25	Aug. 21, 1936	107	-	-	-	6	a/	65	-
32	W.P.A. test well	35	Sept. 1, 1936	965	-	-	-	-	646	44	-
33	J.F. Ivey	50	Sept. 4, 1936	62	11	1	12	31	a/	23	31
34	Ernie Owens	25	do.	54	-	-	-	31	12	8	-
35	A.A. Acrey	25	Aug. 21, 1936	37	-	-	-	12	a/	17	-
36	S.H. Watkins	Spring	do.	19	-	-	-	12	a/	6	-
37	do.	38	Aug. 20, 1936	166	5	3	55	12	a/	97	27
38	W.P.A. test well	30	Aug. 19, 1936	45	-	-	-	6	15	12	-
39	T.Y. Blackburn	31	Aug. 21, 1936	271	28	24	37	31	32	135	170
40	W.P.A. test well	19	Aug. 26, 1936	6,064	642	667	517	6	1,385	2,850	4,340
43	W.W. Sitton	28	Sept. 7, 1936	68	-	-	-	18	a/	34	-
44	W.P.A. test well	22	Aug. 19, 1936	2,319	-	-	-	6	1,385	225	-
45	C.B. Watkins	25	Sept. 7, 1936	39	-	-	-	-	10	16	-
46	Mrs. J.F. Hardy	28	Aug. 28, 1936	1,308	-	-	-	336	419	281	-
47	W.P.A. test well	24	Aug. 29, 1936	232	68	7	6	37	11	122	199
48	Tom Crossland	23	Aug. 28, 1936	314	38	13	44	12	184	29	148
49	S. Stanton	24	Aug. 31, 1936	100	12	5	20	24	a/	51	48
50	Wilmer Scroggins	27	do.	581	-	-	-	-	146	239	-
51	Mrs. M.E. Reider	20	do.	2,910	-	-	-	-	1,806	225	-
52	G.R. Solomon	19	Aug. 29, 1936	22	-	-	-	6	a/	11	-
54	M.I. Stephens	24	do.	25	-	-	-	6	a/	13	-
55	Luke Moore	26	Aug. 21, 1936	147	-	-	-	43	a/	72	-
56	R.E. Muller	Spring	do.	21	5	1	2	12	a/	7	16
57	Mrs. P.J. Coats	44	Aug. 29, 1936	138	31	12	3	31	a/	77	127
58	W.P.A. test well	13	Sept. 16, 1936	21	-	-	-	6	a/	10	-
59	H.T. Lunsford	50	Oct. 5, 1936	59	2	4	15	24	a/	26	23
60	Bellevue School	Spring	Oct. 6, 1936	79	8	-	12	43	a/	8	21
61	John Bailey	73	Aug. 29, 1936	50	8	7	1	31	a/	19	49
62	J.H. Summers	35	Oct. 6, 1936	26	4	3	2	18	a/	8	22
63	J.G. Frederick	48	do.	50	8	-	12	37	a/	12	21
64	Roy Grey	23	do.	42	-	-	-	31	a/	11	-
65	W.P.A. test well	20	Oct. 8, 1936	8,149	-	-	-	153	2,530	2,840	-
66	State Highway	Spring	Oct. 15, 1936	24	5	1	3	18	a/	6	16
67	D.W. Scroggins	36	Oct. 8, 1936	44	6	-	11	18	a/	18	16
68	J.L. Scroggins	47	do.	23	-	-	-	12	a/	8	-

a/ Sulphate less than 10 parts per million

Partial analyses of water from wells in Macogdoches 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)
69	W.R. Kirk	32	Oct. 8, 1936	30	-	-	-	12	a/	13	-
70	A.M. Foshee	27	do.	32	-	-	-	18	a/	11	-
71	W.C. Lee	19	Oct. 6, 1936	336	37	31	46	67	11	178	218
72	J.L. Williams	34	do.	367	-	-	-	183	45	98	-
73	T. J. Williams	19	do.	316	-	-	-	12	150	60	-
74	W.P.A. test well	13	Oct. 5, 1936	154	36	-	16	18	55	38	91
75	- Tinkle	Spring	Oct. 6, 1936	319	28	7	85	85	15	142	100
76	Ed Weatherly	25	do.	5,967	-	-	-	134	2,479	1,500	-
77	H.C. Moore	63	Oct. 6, 1936	3,869	373	443	410	634	431	1,900	2,753
78	J.A. Nix	Spring	Oct. 12, 1936	60	-	-	-	24	4	22	-
79	Mary D. Weatherly	do.	Sept. 30, 1936	54	-	-	-	24	4	18	-
80	do.	27	do.	117	12	5	28	85	11	19	48
81	H.E. Irving	28	Oct. 9, 1936	46	-	-	-	37	a/	10	-
82	C.C. Lowrance	10	do.	112	-	-	-	67	19	19	-
83	Wanders School	33	Oct. 12, 1936	157	-	-	-	43	52	26	-
84	Z. Rambin	24	Oct. 5, 1936	22	5	2	-	6	a/	12	21
85	A. Burt, heirs	41	Oct. 12, 1936	243	-	-	-	110	30	71	-
86	Oscar Harris	26	Oct. 9, 1936	1,459	213	1	259	6	763	220	536
87	Gus Young	30	do.	81	14	7	-	-	30	30	64
88	J.W. Burt	62	Sept. 26, 1936	32	-	-	-	18	a/	11	-
89	I. Caldwell	32	do.	127	8	6	25	-	75	13	43
90	Mrs. G.B. Stoker	63	Oct. 12, 1936	124	37	19	-	18	34	25	172
93	Moss Adams	Spring	Oct. 8, 1936	26	-	-	-	18	a/	7	-
94	J.D. Martin	74	Sept. 26, 1936	35	1	1	12	12	a/	15	5
95	W.F. Martin	24	Sept. 14, 1936	21	-	-	-	12	a/	7	-
96	F.F. Fuller	26	Sept. 26, 1936	32	2	4	4	-	a/	22	23
97	Henry Ennis	20	Sept. 14, 1936	26	-	-	-	12	a/	10	-
98	Mrs. W.B. Turner	27	do.	164	21	11	16	12	91	19	97
99	W.P.A. test well	25	do.	213	-	-	-	183	15	30	-
100	do.	14	Sept. 15, 1936	209	-	-	-	128	34	36	-
101	H.T. Haltom	17	Oct. 12, 1936	108	-	-	-	85	a/	24	-
102	W.P.A. test well	16	Sept. 16, 1936	125	17	2	23	18	49	25	51
103	Jim Powers	23	Oct. 12, 1936	611	72	33	75	18	359	63	315
104	W.P.A. test well	18	Sept. 19, 1936	24	-	-	-	12	a/	9	-
105	do.	20	Oct. 12, 1936	122	21	10	7	31	41	28	92

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Nacogdoches 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)
106	W.P.A. test well	23	Sept. 18, 1936	68	15	2	6	6	15	27	46
107	do.	24	Sept. 17, 1936	484	71	36	37	140	244	27	327
108	C.P. Barr	23	Oct. 9, 1936	58	-	-	-	18	7	21	-
109	O.D. Kerr	21	Oct. 8, 1936	409	-	-	-	219	138	21	-
110	Mrs. J.S. Troutman	560	Sept. 1, 1936	66	4	3	16	24	19	12	22
111	Mollie A. Troutman	23	Aug. 31, 1936	3,181	290	290	287	12	1,958	350	1,919
112	W.P.A. test well	23	Aug. 29, 1936	370	46	24	19	110	127	70	215
113	T.H. Hill	26	Aug. 31, 1936	108	-	-	-	12	a/	63	-
114	Ed Greer	22	Sept. 1, 1936	97	-	-	-	6	a/	59	-
116	A.E. Read	33	do.	49	17	2	-	31	a/	15	51
117	W.P.A. test well	10	Oct. 14, 1936	55	7	2	10	18	12	15	26
118	Tilda Parker	42	Sept. 1, 1936	26	-	-	-	12	a/	10	-
119	W.P.A. test well	49	Oct. 13, 1936	42	-	-	-	18	a/	17	-
120	Southern Ice Co.	500	Sept. 17, 1936	151	3	1	58	122	15	14	10
121	City of Nacogdoches	494	Sept. 16, 1936	154	-	6	54	122	19	15	23
122	do.	485	do.	170	3	1	65	134	19	16	10
123	W.P.A. test well	16	Aug. 6, 1936	43	-	-	-	12	8	14	-
124	do.	26	July 16, 1936	47	-	-	-	37	a/	11	-
125	G.E. Norwood	32	Aug. 19, 1936	32	-	-	-	12	a/	14	-
126	W.P.A. test well	12	Aug. 7, 1936	83	11	2	18	37	10	24	36
127	J. Thomas Hall	2,007	Sept. 18, 1936	213	-	6	78	177	30	12	23
128	R.L. Whitmire	34	Aug. 28, 1936	40	-	-	-	18	a/	16	-
129	W.P.A. test well	30	July 27, 1936	63	-	-	-	43	a/	18	-
130	do.	9	Aug. 17, 1936	1,101	121	130	62	403	524	66	835
131	Mary Hickenbottom	27	Aug. 31, 1936	69	-	-	-	31	8	21	-
132	M.H. Dennard	46	Aug. 28, 1936	44	18	-	-	37	a/	8	46
133	W.P.A. test well	29	Aug. 27, 1936	105	18	5	17	79	a/	26	65
134	W.J. Parmley	30	Sept. 7, 1936	296	-	-	-	110	a/	132	-
135	Will Murphy	21	Aug. 19, 1936	58	-	-	-	31	a/	21	-
136	W.P.A. test well	23	Aug. 17, 1936	34	7	1	5	12	a/	15	21
137	O.D. Armons	35	Aug. 19, 1936	32	-	-	-	18	a/	11	-
138	W.P.A. test well	18	Aug. 14, 1936	469	-	-	-	159	203	33	-
139	do.	20	Aug. 7, 1936	46	-	-	-	12	a/	23	-
140	B. Danforth	22	Aug. 19, 1936	177	13	17	33	122	12	42	100
141	W.P.A. test well	29	Aug. 10, 1936	51	11	2	4	12	16	12	36

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Nacogdoches 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)
142	J.W. Christian	42	Aug. 25, 1936	33	11	1	-	12	a/	15	31
143	W.P.A. test well	13	Aug. 10, 1936	213	26	18	14	18	135	11	140
144	Mrs. S. E. Stone	42	Sept. 18, 1936	96	16	3	18	61	a/	29	52
145	Sam Hayter	19	Aug. 25, 1936	22	8	-	1	12	a/	7	19
146	Mrs. J.C. Miles	39	Sept. 1, 1936	58	-	-	-	24	a/	24	-
147	W.R. Birdwell	41	do.	187	24	14	29	153	17	28	119
148	W.E. Ballard	36	Sept. 2, 1936	3,538	320	387	141	-	2,490	200	2,389
149	J.B. Burk	36	Sept. 7, 1936	234	41	27	5	24	19	130	211
150	C. Whitton	36	Sept. 2, 1936	44	5	2	9	12	a/	22	21
151	E.S. Bradshaw	37	do.	62	-	-	-	-	31	13	-
152	Loy, heirs	52	do.	213	-	-	-	122	62	16	-
153	T.A. Crisp	25	do.	23	-	-	-	12	a/	8	-
154	W.P.A. test well	16	Aug. 13, 1936	40	-	-	-	6	8	15	-
155	Sam Hayter	27	Aug. 25, 1936	145	-	-	-	37	15	60	-
156	Pearl Oil Co.	4,314	b/Aug. 2, 1934	225	14	20	19	64	74	22	119
157	W.P.A. test well	23	Aug. 14, 1936	637	56	37	30	-	479	35	293
158	Wm. Scott	21	Aug. 25, 1936	21	-	-	-	6	a/	10	-
159	Texas Pipe Line Co.	525	Oct. 13, 1936	297	11	1	109	250	37	16	31
160	E.H. Croft	17	Aug. 25, 1936	605	72	63	33	24	293	132	439
161	J.A. Tindally	25	Aug. 27, 1936	50	-	-	-	6	22	9	-
162	H.W. McCuistian	28	Aug. 28, 1936	309	58	34	7	238	68	25	286
163	Loy, heirs	42	Sept. 3, 1936	280	-	-	-	6	116	71	-
164	M.F. Whitaker	34	Aug. 28, 1936	55	14	5	1	49	a/	11	53
165	Wm. T. Free	37	Aug. 27, 1936	109	-	-	-	12	48	20	-
166	Johnny Bradshaw	51	do.	867	29	31	206	37	554	29	200
167	B.K. King	35	Aug. 26, 1936	40	-	-	-	12	a/	19	-
168	C.E. Grimes	23	do.	178	17	2	44	49	61	30	51
169	L.S. Wallace	43	do.	57	-	-	-	12	a/	30	-
170	A.L. Self	27	do.	-	-	4	-	-	285	30	-
171	L.R. Tucker	28	Aug. 26, 1936	105	-	-	-	37	15	34	-
172	C. Watkins	28	Sept. 25, 1936	38	-	-	-	24	4	8	-
173	W.R. Barnett	31	do.	40	-	-	-	18	a/	16	-
174	J.N. Craft	34	Sept. 23, 1936	75	-	-	-	37	11	19	-

a/ Sulphate less than 10 parts per million.

b/ Analysis 24480 by International Filter Co.

Partial analyses of water from wells in Nacogdoches 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)
175	W.H. Butler	31	Sept.23,1936	172	-	-	-	43	26	64	-
176	B.G. Kelly	22	do.	126	6	3	35	49	46	12	27
177	L.A. Legg	29	Sept.22,1936	37	-	-	-	31	a/	8	-
178	Shell Pipe Line Co.-		Oct. 13,1936	225	9	1	80	177	34	14	25
179	A. Stripling	26	Sept.24,1936	53	12	6	-	24	a/	23	53
181	I.C. Ferguson	20	Sept.22,1936	54	4	4	9	6	15	19	28
182	Homer Richards	27	do.	20	-	-	-	12	a/	7	-
183	W.P.A. test well	21	Sept.23,1936	104	-	-	-	18	37	23	-
184	R.E. Tindall	20	Sept.24,1936	37	-	-	-	18	a/	14	-
185	E.H. Johnson	55	do.	33	-	-	-	12	a/	15	-
186	W.P.A. test well	28	Sept.25,1936	10	-	-	-	24	a/	13	-
187	B.L. Johnson	25	Sept.22,1936	72	-	-	-	37	a/	27	-
188	W.P.A. test well	16	Sept.23,1936	26	4	-	6	6	a/	13	11
189	do.	36	July 16,1936	59	15	2	3	12	9	24	46
190	do.	24	Sept.22,1936	70	-	-	-	49	7	13	-
191	B.M. Matlock	44	Sept.23,1936	45	5	2	10	31	a/	13	21
192	W.P.A. test well	10	Aug. 5,1936	210	-	-	-	6	a/	131	-
193	do.	10	do.	72	-	-	-	18	20	18	-
194	R.V. Davidson	24	Sept.18,1936	292	-	-	-	256	34	22	-
195	G.W. Tillory	Spring	Aug.20,1936	74	19	1	10	79	a/	5	50
196	W.P.A. test well	750	July 15,1936	315	26	7	85	6	a/	194	94
197	do.	24	Aug. 4, 1936	63	20	-	2	12	10	25	51
198	Country Club	550	Sept.17,1936	184	-	3	72	171	15	10	13
199	Hillard Stone	32	Sept.16,1936	30	-	-	-	12	a/	13	-
200	W.P.A. test well	39	Sept.26,1936	53	8	-	11	18	11	14	21
201	do.	17	Aug. 4, 1936	35	-	-	-	6	a/	19	-
202	do.	24	July 15,1936	65	11	2	6	12	28	12	36
203	Norval Bright	15	Sept.16,1936	43	10	4	-	18	a/	20	43
204	W.I. Baker	Spring	Sept.22,1936	29	4	6	-	12	a/	13	34
206	Yuba Oil & Ref. Co. -		Sept.17,1936	143	-	-	-	122	15	14	-
207	Frost Labor Indus-375		Sept.18,1936	719	29	14	259	818	a/	15	128
	tries										
210	W.P.A. test well	29	July 28,1936	46	-	-	-	12	a/	23	-
211	do.	13	July 27,1936	208	38	26	4	177	28	25	201

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Partial analyses of water from wells in Macogoches 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)
212	W.P.A. test well	20	July 27, 1936	77	-	-	-	12	a/	43	-
213	do.	18	July 28, 1936	81	12	5	14	61	a/	20	48
214	do.	15	July 29, 1936	38	-	-	-	12	a/	18	-
215	do.	33	do.	111	14	8	16	37	8	47	70
216	do.	15	July 30, 1936	115	23	12	-	-	7	73	107
217	J. Boozer	Spring	Oct. 30, 1936	37	1	2	11	18	a/	14	11
218	W.P.A. test well	20	July 30, 1936	91	19	2	15	85	a/	13	56
219	Hy. Hoya	Spring	Oct. 31, 1936	42	-	-	-	24	a/	14	-
220	W.P.A. test well	12	July 29, 1936	235	-	-	-	183	32	25	-
221	do.	54	Sept. 24, 1936	87	25	1	9	92	a/	7	66
222	do.	18	Aug. 4, 1936	35	-	-	-	12	a/	16	-
223	do.	14	July 31, 1936	25	-	-	-	6	a/	13	-
224	do.	14	Aug. 7, 1936	34	-	-	-	6	8	11	-
225	do.	34	July 31, 1936	640	72	33	82	49	414	15	315
226	H.E. Seale	18	Sept. 14, 1936	312	-	-	-	61	165	18	-
227	W.P.A. test well	19	do.	946	59	89	120	-	397	281	515
228	Mrs. Ernest Pleanant	21	Oct. 13, 1936	199	-	-	-	12	97	33	-
229	W.P.A. test well	19	Sept. 30, 1936	126	-	-	-	110	a/	23	-
230	A.P. Thompson	22	Sept. 29, 1936	178	-	-	-	86	56	18	-
233	W.P.A. test well	31	Oct. 6, 1936	47	-	-	-	37	a/	11	-
234	Guy Mast	26	Sept. 28, 1936	92	19	10	2	73	a/	25	91
235	W.P.A. test well	22	Sept. 29, 1936	29	9	1	1	18	a/	9	26
236	Lee West	26	Oct. 13, 1936	38	-	-	-	18	a/	15	-
237	J.V. Kendrick	32	Sept. 28, 1936	24	-	-	-	12	a/	9	-
238	J.B. Brown	31	Sept. 28, 1936	58	-	-	-	31	a/	21	-
239	W.P.A. test well	25	do.	40	-	-	-	24	a/	13	-
240	J.T. Hana	32	Oct. 13, 1936	78	12	7	9	73	a/	14	59
241	O.O. Smith	17	Sept. 25, 1936	114	21	8	10	73	19	20	85
242	Ancle Fuller	23	Sept. 26, 1936	489	-	-	-	12	285	48	-
243	W.P.A. test well	24	Sept. 15, 1936	53	7	2	11	18	a/	24	26
244	J.W. Burd	47	Sept. 25, 1936	32	1	2	9	18	a/	11	11
245	J.C. King	27	do.	46	-	-	-	6	a/	26	-
246	J.E. Ennis	80	Sept. 15, 1936	240	11	-	87	208	29	11	27
247	E.M. Weeks	37	do.	91	-	-	-	6	11	45	-

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Nacogdoches 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)
249	Whitton, heirs	2,822	Sept.15,1936	1,296	-	22	528	1,450	a/	32	89
250	do.	2,200	do.	819	7	1	341	793	4	76	20
251	do.	Spring	do.	398	-	-	-	329	34	51	-
256	W.P.A. test well	23	Oct. 1, 1936	208	-	-	-	31	116	12	-
257	Bennie Gray	24	Sept.30,1936	79	8	3	19	55	4	18	33
258	R.G. Adkins	20	Oct. 1, 1936	97	-	-	-	37	31	15	-
259	J.W. Prince	200 ¹ / ₂	Sept.15,1936	313	2	-	131	317	12	12	5
260	R.C. Duke	20	Sept.29,1936	409	62	13	80	183	a/	164	208
261	C.P. Little	25	do.	168	-	-	-	31	8	91	-
263	W.P.A. test well	14	Oct. 15,1936	125	-	-	-	12	40	37	-
264	do.	18	Oct.29,1936	4,125	298	155	835	195	2,231	510	1,386
265	do.	29	Oct. 21,1936	612	67	27	99	12	276	137	276
266	Southwestern Settlement-Development Co.	-	Sept.13,1936	431	58	12	266	85	13	40	192
268	W.P.A. test well	20	Oct. 16,1936	76	10	-	18	12	14	28	26
269	do.	14	Oct. 15,1936	61	-	-	-	18	16	15	-
270	do.	24	Oct. 16,1936	228	-	-	-	49	106	24	-
271	L.C. Jacobs	400	Oct. 2, 1936	243	-	3	97	232	19	10	13
272	Ben Oliver	22	Sept.28,1936	71	-	-	-	18	a/	36	-
273	E.C. Parish	29	Sept.29,1936	105	12	4	24	61	a/	35	48
274	J.P. Hill	30	Sept.29,1936	236	-	-	-	146	a/	74	-
275	J.H. Beard	28	do.	115	-	-	-	79	a/	32	-
276	W.P.A. test well	24	Oct. 2, 1936	44	4	-	13	12	a/	21	11
277	Charley Mathis	21	do.	35	1	8	1	12	a/	19	35
278	Tilford Hunt	59	do.	44	-	-	-	12	4	18	-
279	W.P.A. test well	23	July 30,1936	181	-	-	-	-	22	97	-
280	do.	17	July 28,1936	64	5	3	15	18	a/	32	27
281	do.	64	Aug. 11,1936	62	13	2	7	6	a/	37	41
282	do.	19	Aug. 5, 1936	88	-	-	-	73	a/	18	-
283	J.L. Perry	48	Sept.23,1936	78	-	-	-	61	a/	18	-
285	Sam Stripling	42	Sept.24,1936	35	3	1	10	24	a/	9	10
286	W.P.A. test well	32	Oct. 20,1936	104	18	-	23	61	a/	33	46
287	do.	9	do.	296	-	-	-	12	a/	183	-
288	do.	33	Aug. 6, 1936	79	23	2	2	12	10	35	66

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Nacogdoches 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)
289	W.P.A. test well	18	Aug. 13, 1936	77	-	-	-	31	18	17	-
290	Guy Blount	570	Sept. 17, 1936	357	14	20	100	256	34	63	117
291	W.P.A. test well	23	Aug. 21, 1936	35	14	-	-	12	a/	15	36
292	do.	27	Oct. 31, 1936	176	-	-	-	6	85	32	-
293	Lulia R. Turner Spring		do.	87	-	-	-	43	22	13	-
294	W.P.A. test well	9	do.	67	-	-	-	18	18	17	-
295	B.B. Holtam	35	Oct. 2, 1936	29	-	3	7	12	a/	13	13
296	M.H. Henderson	30	do.	111	-	-	-	116	a/	10	-
297	R.J. Driver	54	Sept. 30, 1936	71	1	2	24	43	8	15	11
298	Anna Daniel	34	do.	22	-	-	-	12	a/	8	-
299	Florie Daniel	19	do.	135	-	-	-	140	a/	13	-
300	Ben Oliver	33	do.	55	-	6	13	24	8	16	23
301	W.P.A. test well	28	Oct. 30, 1936	1,133	-	-	-	232	513	138	-
302	do.	16	Oct. 19, 1936	79	-	-	-	18	24	19	-
304	do.	19	Oct. 29, 1936	113	-	-	-	6	53	21	-
305	Tom Parton	252	Oct. 2, 1936	857	-	36	312	879	a/	77	151
307	W.P.A. test well	27	Oct. 22, 1936	-	-	-	-	-	2,461	2,540	-
308	do.	21	Oct. 30, 1936	1,291	-	104	296	379	638	67	427
309	R.G. Atkins	27	Oct. 1, 1936	384	-	-	-	12	a/	239	-
310	Jim Still	23	do.	47	-	-	-	24	a/	17	-
311	T.J. Wilson	15	do.	45	-	3	14	31	a/	13	13
312	H.T. Sowell	32	do.	187	-	-	-	18	a/	110	-
314	E.L. Lowery	24	Oct. 2, 1936	33	-	4	7	18	a/	13	18
315	W.P.A. test well	16	Oct. 23, 1936	335	-	-	-	18	122	94	-
316	do.	14	Oct. 26, 1936	161	24	7	17	12	90	17	89
317	do.	17	do.	101	-	-	-	37	26	22	-
318	do.	28	Oct. 27, 1936	527	-	-	-	37	298	48	-

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