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GALVESTON COUNTY, TEXAS

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

\* \* \*

by

Penn Livingston and Samuel F. Turner

Mimeographed by  
WORKS PROGRESS ADMINISTRATION  
PROJECT 10443

\* \* \*

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

\* \* \*

Austin, Texas  
April 10, 1939

GALVESTON COUNTY, TEXAS

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Introduction  
by  
Samuel F. Turner  
Associate Hydraulic Engineer  
United States Department of the Interior  
Geological Survey

This pamphlet contains records of wells in Galveston County, Texas, with tables of well logs, well water analyses, and a map which shows all the wells described, each well having a number on the map corresponding to the number assigned to it in the well tables.

The records were obtained in the course of an investigation which was undertaken as part of a statewide study of the underground water resources of Texas. The investigation was made by the State Board of Water Engineers, in cooperation with the U. S. Department of the Interior, Geological Survey. The field work was carried out by Penn Livingston and Samuel F. Turner of the Geological Survey. The analyses were made in the laboratory of the Geological Survey at Washington by Margaret D. Foster. The field tests were made in Houston by Samuel F. Turner.

The well records serve as a guide to land owners and well drillers who may need information regarding wells and pumping plants, the depth to ground water in different parts of the county and the quantity and quality of water yielded by wells. They afford a basis for the more intensive investigation which is now being made.

Those records were typed, assembled, and mimeographed by employees of Works Progress Administration Project 10443, which is sponsored by the Texas Board of Water Engineers in cooperation with the Geological Survey.

Records of wells in Galveston County, Texas  
 (All wells are drilled unless otherwise noted in "Remarks" column.)  
 (Principal water-bearing beds are sand or gravel.)

No.	Distance from League City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/ 1	8 miles west northwest	-- Garretson	Layne-Texas Co.	1915?	600	24	400	200
e/ 2	6 miles west northwest	J. R. Williams	--	--	600+	8	--	--
e/ 3	5 $\frac{3}{4}$ miles west	Mrs. Annette Voss	Layne-Texas Co.	1910	765	24	506 705	149 50
21	At League City	R. G. Strickland	Pat O'Day	1932	200	3	--	--
d/ 22	do.	Ed Lemoine	Wm. Boeske	1933	23	4 $\frac{1}{2}$	--	--
e/ d/ 23	do.	Joe L. Taylor	--	Old	800+	4	--	--
24	$\frac{1}{2}$ mile south	H. A. Carter	--	1930	88	2	--	--
25	At League City	G. M. & H. R. R. shops	--	--	208	8	--	--
e/ 26	do.	do.	Layne-Texas Co.	1905	1,020	8	935	85
d/ 27	do.	Parke Well	--	--	88	--	--	--
e/ 28	do.	G. H. & H. R. R.	--	--	560+	4	--	--
29	do.	Emil Schenk	Fred Standard	1910?	575	3	--	--
30	5 miles east northeast	W. T. Heuwerth	--	1930	584	2	--	--
31	5 $\frac{1}{4}$ miles east northeast	Freund's Place	--	--	700+	4	--	--
32	5 miles east northeast	City of Kemah	Gus Werniecke	1907	864	4	--	--
e/ 33	5 $\frac{1}{2}$ miles east	McClintock Est.	do.	1903	622	4	590	--
34	do.	G. V. Triplet	--	--	12	3	--	--
35	do.	J. O. Derrick	Charles Ellis	--	75	2 $\frac{1}{2}$	--	--
61	6 $\frac{1}{2}$ miles east	R. O. Albright	-- Paladino	1928	25	3	--	--

a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric; S, steam; O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hand.

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

d/ See analysis table for analysis of water from this well.

Records obtained by Penn Livingston and Samuel F. Turner  
 (See "Table of field tests" for tests of hardness, chloride and sulphate.)

No.	Height of bench mark above (+) ground (ft.) <u>a/</u>	Water level		Pump and kind and amount of power <u>b/</u>	Use of water <u>c/</u>	Remarks
		Below bench mark (ft.)	Date of measurement			
1	$\frac{1}{2}$	39.0	Oct. 11, 1931	T,G, 60	N	Casing: 50 feet of 24-inch, and 9 5/8-inch to bottom. Screen set at 474 to 596 feet. Water level was 8 feet below surface when well was completed. <u>f/</u>
2	--	16.4	do.	None	N	At site of old fig plant. An analysis of water probably from this well was
3	0	33.0	do.	T,G, --	D,S, I	Casing: <u>g/</u> given by Singley in 1893. 55 feet of 24-inch and 11 5/8-inch to bottom. Screens set at 550 to 648 and
21	--	--	--	J,E, $\frac{1}{2}$	D,S	700 to 755 feet. See driller's log.
22	--	--	--	J,H	D	
23	--	--	--	J,E, $\frac{1}{2}$	P,D,S	Well reported to have had a flow until 10 years ago. Difference in two analyses indicates that casing is now probably
24	$\frac{1}{2}$	20.4	Oct. 20, 1932	J,E, $\frac{1}{4}$	P,D,S	<u>leaking at shallow depth.</u>
25	-9 $\frac{1}{2}$	4.1	Apr. 15, 1931	J,G, --	N	
26	3	14.9	do.	None	N	Casing: 944 feet of 8-inch and 76 feet of 8 $\frac{1}{2}$ -inch screen. See driller's log.
27	--	--	--	--	--	See analysis <u>h/</u> Ceased flowing in 1929. of water made for G. H. & H. Railroad.
28	0	25.3	Apr. 15, 1931	None	N	<u>Exact location of well not known.</u>
29	--	--	--	A, -	P,D	Well ceased flowing about 1922.
30	--	--	--	--	P,D,S	Public supply for Kemah.
31	--	--	--	J,E, --	P,D	
32	--	--	--	J,H	P,D,S	Well ceased flowing about 1917.
33	0	23.1	Sept. 8, 1931	None	N	Reported flow of 25 gallons a minute about 1912. <u>h/</u> Well ceased flowing
34	--	--	--	J,H	D,S	<u>about 1915.</u>
35	--	15.2	Sept. 8, 1931	J,H	D,S	No screen. Open end casing in very fine sand.
61	$\frac{1}{2}$	9.5	Aug. 4, 1931	J,H	D	

e/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J. A., Preliminary reports on the artesian wells of the Gulf Coastal slope. Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp. 154-176, 1914

i/ See page

Records of wells in Galveston County--Continued

No.	Distance from League City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
d/ 62	6½ miles east	T. R. McClendon	Charles Ellis	1931	170	2½	152	18
63	7 miles east	G. C. Perkins	-- Martin	1924	540+	--	--	--
64	6½ miles east	A. N. Lockart	A. N. Lockart	1929	42	--	--	--
a/ 65	8 miles east	-- Moore	Charles Ellis	1930	215	2½	203	12
66	7½ miles east	-- Sellman	do.	1930	218	2½	196	22
67	do.	S. J. Holton	do.	1930	227	2½	201	26

No.	Distance from Alta Loma	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
a/ 81	10 miles northwest	A. D. Dyess	-- Dirmitt	1916	600+	6	--	--
82	6 miles west northwest	St. L. B. & M. RR.	L. Patterson	1926	642	8	632	10
a/ 83	do.	do.	Layne-Texas Co.	1906	650	6	622	21
84	5½ miles west northwest	Algoa School	Ed Metzler	1916	444	4	--	--
a/ 85	5 miles west northwest	Algoa Townsite Co.	Layne-Texas Co.	1907	1,362	8	453 617	45 60
d/101	8 miles north	H. E. Carter	--	--	200+	3	--	--
102	do.	John Saracco	--	1924?	94	4	--	--
d/103	do.	Tony Emite	--	--	20+	1	--	--
104	do.	George Saracco	George Saracco	1932	22	48	--	--
105	5 miles north	R. E. Newell	--	1915?	240	4	--	--
106	6 miles north	Hans Gouldman	--	1924?	1,100+	3	--	--
107	do.	Foster Hoskins	--	1925?	215	3	--	--
d/108	6½ miles north northeast	Dickinson Ice Co.	Layne-Texas Co.	1922	576	6	497 531	20 41

a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric; S, steam; O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hand.

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

d/ See analysis table for analysis of water from this well.

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No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
62	--	--	--	J,H	D	Screen set at 155 to 170 feet. First water sand at 85 to 110 feet not screen-
63	--	--	--	J,G, 15	P,D,S	Public supply for Clifton by the sea.
64	--	--	--	J,H	D,S	
65	--	--	--	A,G, 1½	D	
66	--	--	--	J,H	D	Set 10 feet of screen in bottom.
67	--	--	--	J,H	D	Set 20 feet of screen in bottom.

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
81	1	33.9	Oct. 11, 1931	J,G	D,S,I	Formerly Gulf Coast Orchard well.
82	--	--	--	J,S	RR	Water level reported as 17 feet below surface in 1929. Screen set at 632 to
83	--	--	--	None	N	Casing, 621 feet of 6-inch 642 feet. and 21 feet of 6-inch screen.
84	--	--	--	J,H	F	At Algos.
85	--	--	--	T	N	Casing, 705 feet of 8-inch. Screens set at 459 to 481 and 626 and 686 feet. See
101	--	--	--	J,G, 5	D,S,I	driller's log
102	2	13.8	Oct. 20, 1932	J,W	S	
103	--	--	--	J,H	S	
104	--	--	--	J,H	S	Dug well.
105	0	6.7	Oct. 20, 1932	J,G, 3	D,S	
106	--	+	--	F,J,E, 3	S	Used to supply swimming pool.
107	--	--	--	J,E, ¼	D,S	Well flows at times in fall.
108	--	--	--	A,0	D,Ind	Casing, 578 feet of 6-inch with screens set at 498 to 519 and 535 to 578 feet. Water level was 3 feet below surface in 1922.f/

e/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J. A., Preliminary reports on the artesian wells of the Gulf Coastal slope Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp.154-176, 1914.

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Records of wells in Galveston County--Continued

No.	Distance from Alta Loma	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/109	6½ miles north northeast	Dickinson High School	--	--	230	3	--	--
e/110	do	Nichols Well	--	--	600	3	--	--
d/111 v/	do.	Dickinson Fig Plant	--	--	875	8	210	20
e/112	do.	G. H. & K. R. R.	Gus Warnocke	--	750	3	650 750	--
113	7 miles north northeast	E. Menotti	--	1925?	504	6	--	--
114	do.	J. H. Bland	--	1894	850+	4	--	--
e/115	6 miles northeast	J. W. Palmer	--	1925	526	4	475	50
116	do.	do.	--	1912?	65	4	--	--
e/117	do.	--	--	--	--	3	--	--
118	2½ miles west northwest	Texas Dairy League	--	--	85	3	--	--
119	1½ miles west northwest	Sante Fe School	--	1928	68	2	--	--

No.	Distance from Texas City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/151	8 miles northwest	Pete Witik	Pat O'Day	--	90	4	--	--
e/152	do.	-- Beaty	do.	--	185	--	--	--
e/153	do.	C. O. Castel	-- Burns	1913	478	2	--	--
e/154	do.	L. F. Bachman	Charles Ellis	--	180	2½	158	22
e/155	do.	G. B. Slate	do.	1931	170	2½	144	26
e/156	8 miles north northwest	D. C. Richards	D. C. Richards	1924	580+	2½	550	--
e/157	do.	do.	do.	1923	185	3	--	--

a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric; S, steam; O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hand.

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

d/ See analysis table for analysis of water from this well.

Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
109	0	13.4	Apr. 15, 1931	None	N	At Dickinson.
110	--	--	--	--	--	An analysis of water from this well was given by Singley in 1893.g/ Exact location of well not known.
111	--	--	--	A	Ind	Original depth was 875 feet and 1,926 analysis is of water from this depth. Well was reworked and plugged at 230 feet and 1933 analysis is of water from 210 to 230 feet.
112	1	18.9	Apr. 15, 1931	J,H	N	Water level reported as +3 feet about 1912.h/
113	1/2	14.9	Oct. 20, 1932	A,G, 2	D,S	
114	1 1/2	12.0	Apr. 15, 1931	J,G	D,S	Water level reported as +8 feet about 1912.h/ Ceased flowing in 1923.
115	4	19.4	Oct. 20, 1932	None	N	
116	0	9.7	do.	J,G, 2	D,S	
117	1	11.2	do.	None	N	
118	--	--	--	J,E, 2	Ind	At Arcadia.
119	--	--	--	J,E	P,D	At Santa Fe School.

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
151	--	--	--	J,H	D,S	
152	--	--	--	A,G, 2 1/2	D,S	
153	--	--	--	J,H	D,S	
154	--	--	--	A,G, 5	D,S,I	Twenty feet of screen set at bottom of well.
155	--	--	--	J,W	D,S	Twelve feet of screen set at bottom of well.
156	--	--	--	--	D,S	
157	--	--	--	--	D,S	

e/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J. A., Preliminary reports on the artesian wells of the Gulf Coastal slope Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp.154-176, 1914.

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## Records of wells in Galveston County--Continued

No.	Distance from Texas City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/158	8 miles north northwest	D. C. Richards	D. C. Richards	1930	185	8	165	20
159	7 $\frac{1}{2}$ miles north northwest	Charles Ellis	Charles Ellis	1924	547	2 $\frac{1}{2}$	523	24
e/160	do.	C. J. Blume	-- Martin	1923	557	4	523	25
e/161	do.	R. M. Griffith	Charles Ellis	1924	665	4	641	24
e/162	8 miles north northwest	Trinity Bay Farm	-- Martin	1924	665	4	--	--
e/163	7 $\frac{1}{2}$ miles north northwest	Experiment Farm	--	1908	185	12	--	--
e/164	8 miles north	-- Hodges	Charles Ellis	1930	175	2 $\frac{1}{2}$	155	20
e/165	7 $\frac{1}{2}$ miles north	E. A. Biggers	do.	1929	225	2 $\frac{1}{2}$	204	21
e/166	7 miles north	-- Keith	do.	1930	187	2 $\frac{1}{2}$	175	12
167	do.	Public Well at San Leon	--	Old	600+	4	--	--
e/168	do.	-- Butcher	Charles Ellis	1930	165	2 $\frac{1}{2}$	153	12
169	do.	T. W. Saunders	do.	1929	225	4	202	23
e/170	do.	--	--	Old	--	--	--	--
e/171	do.	Galveston County	--	Old	600+	--	--	--
e/172	do.	--	--	Old	600	4	--	--
e/173	do.	--	--	Old	600	4	--	--
174	do.	R. E. Breeding	Charles Ellis	1928	227	4	201	26
e/175	do.	San Leon Development	--	1919	3,562	8	--	--
176	6 $\frac{1}{2}$ miles north	G. J. Fromm	Charles Ellis	1931	160	2 $\frac{1}{2}$	142	18
e/181	7 miles northwest	O. A. Butterfield	-- Burns	1912	480	2	--	--
e/182	7 $\frac{1}{2}$ miles northwest	M. J. Sass	Charles Ellis	1929	165	2 $\frac{1}{2}$	140	25
e/183	do.	do.	Pat O'Day	1924	600	4	--	--
d/184	7 miles northwest	Southern Pacific Ry.	--	--	600	6	--	--
d/185	do.	do.	--	--	600	4	--	--
e/186	do.	Fig Preserving Plant	-- Martin	--	600+	4	--	--
e/187	do.	George Knight	-- Burns	1913	487	2	--	--

## Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
158	--	--	--	A,G, 23	D,S,I	Twenty feet of screen set at bottom of well.
159	--	--	--	A,G, 20	D,S,I	Temperature 77° F: 20 feet of screen set at 527 to 547 feet.
160	--	--	--	A,G, 6	D,S,I	
161	--	--	--	A,G, 23	D,S,I	Well flowed when completed.
162	--	--	--	A,G, 6	D,S,I	
163	--	--	--	None	N	
164	--	--	--	J,E	D,S	Twelve feet of screen set at bottom of well.
165	--	--	--	A,G, 3	D,S,I	Twenty feet of screen set at bottom of well.
166	--	--	--	A,G, 3	D,S,I	Ten feet of screen set at bottom of well.
167	--	--	--	J,H	D,S,P	Reported flow of 70 gallons a minute in 1893.g/ Stopped flowing in 1919.
168	--	--	--	J,W	D,S	Twelve feet of screen set at bottom of well.
169	--	--	--	J,H	D,S	At San Leon well had slight flow when completed.
170	--	--	--	None	N	Unused well on old railroad fill. Flow- ed at one time.
171	--	--	--	None	N	Unused well in road, once flowed.
172	--	--	--	F	D,S	
173	--	--	--	--	--	
174	--	--	--	J,W	D,S	Drilled to 735 feet but could not devo- lop well in stratum at 717 to 735 feet and present bottom of well is 227 feet.
175	--	--	--	--	--	Oil test.
176	--	--	--	J,W	D,S	Water level at 2 feet below surface when drilled.
181	--	--	--	J,H	D,S	Well ceased flowing in 1928.
182	--	--	--	J,H	D,S	Ten feet of screen set at bottom. Re- ported yield of 40 gallons a minute when
183	--	--	--	A,G, 6	D,S,I	completed.f/
184	--	--	--	A	RR	At San Leon Station. Flowed until 1928. Water level reported as 6 feet below
185	--	--	--	A	RR	ground in 1931.
186	--	--	--	J,E	Ind	
187	--	--	--	--	D,S	Flowed until summer of 1931.

Records of wells in Galveston County--Continued

No.	Distance from Texas City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/188	6½ miles northwest	-- Suttan	Charles Ellis	--	130	2½	138	22
e/189	4¼ miles north	Dollar Bay Fig Corporation	-- Conklin	Old	700+	4	--	--
201	4¼ miles west	Theodore Korenek	--	1912	22	6	--	--
202	4½ miles west	Frank Bell	J. Anezan	1928	105	3	--	--
203	4½ miles west	State Highway	F. A. Boehm	1904	860	9-5/8	800	60
e/204	4 miles west	G. H. & H. R. R.	Layne-Texas Co.	1913	909	9-5/8	861	35
205	do.	do.	do.	--	914	9-5/8	860	49
206	3½ miles west	A. J. Biron	do.	1907	926	11-5/8	294 365 828	54 21 67
221	2½ miles northwest	J. Fetzal	--	--	--	4	--	--
d/222	2 miles west northwest	S. M. O'Callaghan	S. M. O'Callaghan	1932	30	4	--	--
d/223	1½ miles west	Otis Walker	Charles Ellis	1931	246	2½	236	10
d/224	At Texas City	Texas-Louisiana Power Co.	Layne-Texas Co.	1915	1,038	24	--	--
e/225	do.	do.	do.	1914	791	8	697 742	35 27
d/226	do.	do.	do.	1910	812	8¼	674	91
e/							771	29
d/227	do.	do.	do.	1914	783	8	677 722	36 44
e/228	do.	"Depot Well"	--	1896	740	4½	--	--
e/229	1½ miles west	Knox Process Corp.	Stoner & Conklin	1924	574	12	540	28
d/230	2 miles west	Pan-American Refining Corp.	McMasters & Pomeroy	1933	611	12	440 471 536	20 12 34
e/231	At Texas City	Texas Sugar Refining Co.	Southern Well Drilling Co.	1923	582	10	425 535	30 47
e/232	do.	do.	do.	1924	610	10	392 546	144 62
e/233	do.	do.	do.	1929	598	16	420 503	58 44

Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) <u>a/</u>	Water level		Pump and kind and amount of power <u>b/</u>	Use of water <u>c/</u>	Remarks
		Below bench mark (ft.)	Date of measurement			
188	--	--	--	J,W	D,S	Twenty feet of screen set at bottom of well.
189	--	+	--	F,J,W	D,S	
201	--	--	--	J,H	D,S	
202	1	11.0	Sept. 21, 1932	J, E, $\frac{1}{2}$	D,S	
203	0	2.2	Apr. 15, 1931	None	N	Casing: 800 feet of 9 5/8-inch and 60 feet of 9 5/8-inch screen.
204	--	--	--	J,H	D	Casing: 869 feet of 9 5/8-inch and 40 feet of 9 5/8-inch screen. At Lamarque.
205	2	6.2	Apr. 15, 1931	J	RR, D,S	Casing: 874 feet of 9 5/8-inch and 40 feet of 9 5/8-inch screen.
206	0	7.2	do.	J,W	D,S	Casing: 910 feet of 11 5/8-inch with screens set at 286 to 346. 362 to 382 and 790 to 894 feet. Flow reported as 380 gallons a minute in 1907, 200 in 1914.i/ and 50 in 1922.
221	--	--	--	J,W	D,S	
222	--	--	--	J,H	D,S	
223	--	--	--	J, E, $\frac{1}{4}$	D,S	Ten feet of screen set in bottom of well.
224	--	+	--	F,T,E 20	P	Casing: 84 feet of 24-inch, 12-inch set at 762 feet, and 9 5/8-inch set at 964 feet but wooden plug set in top. Well drilled to 1,038 feet but plugged at 762 feet. Present flow estimated at 10 gallons a minute, Oct. 22, 1931.
225	--	--	--	None	N	Casing: 791 feet of 8-inch with screen set at 692 to 768 feet.
226	0	2.2	Oct. 22, 1931	None	N	Casing: 812 feet of 8 1/4-inch with screens set at 715 to 756 and 776 to 795 feet. Had a flow of 68 gallons a minute when completed.f/
227	--	--	--	T, E, 20	P	Casing: 783 feet of 8-inch with screens set at 685 to 706 and 724 to 765 feet. Ceased flowing in 1915.
228	$\frac{1}{2}$	7.7	Oct. 22, 1931	None	N	Ceased flowing in 1928. Temperature 81° F.
229	--	--	--	--	N	
230	--	--	--	T, E	Ind	Casing: 590 feet of 12-inch. Screens set at 440 to 460, 471 to 482, and 536
231	--	--	--	--	N	Casing: 463 feet of 10-inch and 120 feet of 8-inch. Screens set at 463 to 503 and 543 to 583 feet.
232	--	--	--	--	N	Casing: 609 feet of 10-inch with screens set at 463 to 506 and 546 to 586 feet. Well abandoned in 1929 because of sand.
233	--	--	--	--	N	Casing: 421 feet of 16-inch and 171 feet of 8-inch with screens set at 427 to 486 and 506 to 547 feet. Static level 36 feet below ground in 1929.f/

## Records of wells in Galveston County--Continued

No.	Distance from Texas City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/234	At Texas City	Texas City Terminal Ry.	Layne-Texas Co.	1922	550	8 $\frac{1}{4}$	415 500	60 45
235	do.	do.	do.	1922	547	8	420 500	40 47
e/236	do.	do.	do.	1910	1,135	6	921	214
e/237	do.	do.	do.	1910	580	8	--	--
e/238	do.	do.	--	1912	800	8	--	--
d/239	do.	do.	--	1904	855	6	--	--
No.	Distance from Alta Loma	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
261	At Alta Loma	F. A. Bartlett	F. A. Bartlett	1929	120	4	--	--
e/262	do.	City of Galveston Well 1	Layne-Texas Co.	1914	840	24	715	102
263	do.	City of Galveston Well 6	do.	1924	888	12	--	--
d/264	do.	City of Galveston Well 7	do.	1927	843	24	698	141
265	do.	City of Galveston Well 2	do.	1914	855	24	721 762	32 83
266	$\frac{1}{4}$ mile east southeast	City of Galveston Well 3	do.	1916	866	24	726	133
e/267	$\frac{1}{2}$ mile east southeast	City of Galveston Well 4	do.	1916	873	24	712	145
268	$\frac{3}{4}$ mile east southeast	City of Galveston Well 5	do.	1916	888	24	705	167
e/269	At Alto Loma	City of Galveston Well 2	--	1896	768	7	740	18

a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric S, steam; O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hard.

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

d/ See analysis table for analysis of water from this well.

## Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
234	--	--	--	A	Ind	Casing: 550 feet of 8 $\frac{1}{2}$ -inch with screens set at 444 to 480 and 501 to 540 feet.
235	--	--	--	T,E	Ind	Casing: 547 feet of 8-inch with screens set at 442 to 460 and 500 to 541 feet. Well 6.
236	--	--	--	None	N	Casing: 1,136 feet of 6-inch with screen set at 1,079 to 1,136 feet. Well 5. Well flowed salt water and was
237	--	--	--	None	N	Screen failed and abandoned. Well 1. well abandoned in 1919 or 1920. Well 8.
238	--	--	--	None	N	Screen sanded up and well abandoned. Well 4.
239	--	+	--	F	Ind	Well 3 or Inman well. Flow estimated as 5 gallons a minute.
No.	Height of bench mark above (+) ground (ft.) a/	Below bench mark (ft.)	Date of measurement	Pump and kind and amount of power b/	Use of water c/	Remarks
261	--	--	--	J,W	D,S	
262	--	--	--	T,E	P	Water level was 10 feet below surface in 1914. f/ Casing: 80 feet of 24-inch, and 12-inch to 840 feet. Screen set at 713
263	--	--	--	T,E	P	to 815 feet.
264	--	--	--	T,E	P	Water level was 28 $\frac{1}{2}$ feet below surface in 1927. f/ Casing: 151 feet of 24-inch and 12-inch to 843 feet. Screen set at 739 to
265	2	36.3	Sept. 23, 1932	T,E	P	Water level was 32 feet below 840 feet. surface in 1927. f/ Casing: 80 feet of 24-inch and 12-inch to bottom. Screens set at 705 to 735 and 742 to 826 feet. Eighty feet of 8-inch screen set in bottom and 80 feet of 16-inch casing set in pit in
266	--	--	--	T,E	P	Water level was 14 feet below sur- 1927. face in 1916. f/ Twelve-inch screen set
267	--	--	--	T,E	P	Water level was from 723 to 856 feet. 14 feet below surface in 1916. f/ Casing: 90 feet of 24-inch and 12-inch to bottom. Screen set at 712 to 855 feet.
268	--	--	--	T,E	P	Water level was 14 feet below surface in 1916. f/ Casing: 24-inch pit with 12-inch casing to bottom. Screen set at 715 to
269	3	37.0	Sept. 23, 1932	None	N	Water level was 22 feet above 867 feet. surface and average flow was 300 gallons a minute in 1898. i/ Water level was 1 $\frac{1}{2}$ feet below ground in 1911. h/

e/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J. A., Preliminary reports on the artesian wells of the Gulf Coastal slope: Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp. 154-176, 1914.

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## Records of wells in Galveston County--Continued

No.	Distance from Alta Loma	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/270	At Alta Loma	City of Galveston Well 4	--	1896	868	7	740	128
e/271	do.	City of Galveston Well 6	--	1896	793	7	757	36
e/272	do.	City of Galveston Well 8	--	1896	809	7	756	40
e/273	$\frac{1}{2}$ mile south	City of Galveston Well 14	--	1896	800	7	756	34
e/274	do.	City of Galveston Well 16	--	1896	838	7	755	40
e/275	$\frac{3}{4}$ mile south	City of Galveston Well 18	--	1896	790	7	755	35
e/276	$1\frac{1}{4}$ miles south	City of Galveston Well 24	--	1896	733	7	--	--
277	2 miles southwest	-- Friday	--	--	--	2	--	--
278	$1\frac{1}{2}$ miles south southwest	Mrs. H. Huntington	Frank Schultz	1925	38	3	--	--
d/279	$1\frac{1}{2}$ miles south southwest	N. J. Mouna	Ed Metzler	1912	120	3	--	--
280	1 mile south southwest	N. S. Norris	Fred Conklin	1907	118	4	--	--
d/281	At Alta Loma	C. R. Platzer	C. R. Platzer	1910	34	2	--	--
e/282	do.	H. E. Stobart	H. E. Stobart	--	700	6	--	--
e/283	2 miles east southeast	James Balcher	Louis Cange	1894	720	$4\frac{1}{4}$	--	--
284	$2\frac{1}{2}$ miles east southeast	W. F. Reitmeyer	J. Tacquard	1888	728	4	--	--
285	do.	do.	do.	1887	410	2	--	--
286	do.	A. Cook	do.	Old	720	6	--	--
287	do.	J. Tacquard	do.	1911	720	6	--	--
288	do.	H. L. Roberts	Louis Cange	1889	720	3	--	--
d/289	$3\frac{1}{4}$ miles east southeast	R. G. Roberts	do.	1930	260	4	235	--
290	$3\frac{1}{2}$ miles east southeast	Charles Shiro	--	--	720	3	--	--
d/291	do.	Hitchcock Ice & Fuel Co.	Bob Conklin	1922	720	6	700	20
292	4 miles east southeast	Dora Palla	J. Anezan	--	97	3	--	--
d/293	do.	L. Schanza	--	1927	208	4	--	--
294	do.	H. L. Roberts	J. Tacquard	1911	710	4	--	--
295	do.	Gulf Coast & Santa Fe Ry.	Fred Standard	1913	687	8	635	54

## Penn Livingston and Samuel F. Turner

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
270	1 $\frac{1}{2}$	36.4	Sept. 23, 1932	None	N	Water level was 2 $\frac{1}{2}$ feet below ground in 1911. h/
271	2	34.7	do.	None	N	Water level was 1 $\frac{1}{2}$ feet below ground in 1911. h/
272	7	38.8	do.	None	N	Water level was 3 feet below ground in 1911. h/
273	2	30.0	do.	None	N	Water level was 1 $\frac{1}{2}$ feet below ground in 1911. h/
274	6	27.4	do.	None	N	Water level was 1 foot below ground in 1911. h/
275	4	27.8	do.	None	N	Water level was 1 $\frac{1}{2}$ feet above ground in 1911. h/
276	6 $\frac{1}{2}$	28.8	do.	None	N	Water level was 2 $\frac{1}{2}$ feet above ground and flowed about 70 gallons a minute in 1911. h/
277	--	--	--	J,H	D	
278	--	--	--	J,H	D,S	
279	--	--	--	J,H	D,S	
280	--	--	--	J,H	D,S	
281	--	--	--	J,W	D,S	
282	0	28.5	Nov. 2, 1932	None	N	Well had a flow when completed.
283	2	13.3	Sept. 23, 1932	None	N	
284	--	--	--	J,G	D,S	Water level was 15 feet above ground in 1911. h/
285	--	--	--	J,H	S	Had a flow of 15 gallons a minute in 1911. h/
286	$\frac{1}{2}$	12.4	Sept. 23, 1932	J	N	Had a flow of 100 gallons a minute in 1911. h/
287	2	16.0	Sept. 22, 1932	J,G, 4	D,S	
288	1	4.3	do.	J,H	D,S	Had a flow of 30 gallons a minute in 1911. h/
289	1	2.7	do.	J,H	D,S	
290	--	--	--	J,W	D,S	
291	--	--	--	J,E, 1	D,Ind	
292	--	--	--	J,W	D,S	
293	--	--	--	J,E	D,S,P	At Hitchcock water level was 5 feet below surface in 1927. f/
294	--	--	--	J,E	D,S	Salt water was encountered at 1,100 feet in a test well near this well.
295	--	--	--	A	RR	Casing: 616 feet of 8-inch and 79 feet of 6-inch. Screen set at 609 to 660 feet.



Records of wells in Galveston County--Continued

No.	Distance from Alta Loma	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/296	4 miles east southeast	Gulf Coast & Santa Fe Ry.	J. L. Mays	1891	726	6	711	15
297	do.	Charles Schiro	J. Tacquard	1911	720+	6	--	--
298	4 1/4 miles east southeast	J. A. Bret	Louis Cange	1932	40	4	--	--
e/299	4 1/2 miles east southeast	R. T. Wheeler	do.	1889	720	3	700	20
c/300	4 3/4 miles east southeast	Chris Jenson	do.	1889	500	3	--	--
301	4 1/2 miles east southeast	J. A. Minot	do.	1889	763	2	--	--
302	4 miles east southeast	Joe Tarraso	do.	1928	790	4	--	--
e/303	3 1/2 miles east southeast	Fred Lemke	do.	1895	695	3	--	--
e/304	3 1/4 miles southeast	H. Schoeffler	--	--	252	2	--	--
305	5 miles southwest	H. G. Tacquard	Louis Cange	--	450+	4	--	--
e/306	7 1/2 miles south	-- Coon Well 1	The Texas Co.	1925	1,100	--	--	--
307	7 miles south southeast	Hughes Est.	Louis Cange	1909	913	3	--	--
308	5 miles southeast	do.	--	--	100+	3	--	--
309	6 1/2 miles southeast	Humble Oil & Refining Co.	-- Patterson	1932	210	6	--	--
d/351	5 1/2 miles east southeast	-- Derringer	Louis Cange	1929	533	6	--	--
d/352	6 miles east southeast	R. E. Meisterhans	--	1932	30	2	--	--
e/353	5 1/2 miles east	J. A. Perthus	Louis Cange	1900?	495	3	--	--
354	do.	do.	do.	--	235	3	--	--

No.	Distance from Texas City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
d/355	3 1/2 miles west	P. H. Naschke	Bob Conklin	1931	710	8	670	40
d/356	3 1/2 miles southwest	R. L. Whitburn	J. Anezan	1930	117	3	--	--

- a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.
- b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric; S, steam, O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hand.
- c/ P, public; I, irrigation; Ind, industrial; RR, railroad; D, domestic; S, stock; N, not used.
- d/ See analysis table for analysis of water from this well.

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No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
296	--	--	--	None	N	Other strata of water sand at 18 to 26, 408 to 423 and 678 to 692 feet. Had a flow of 66 gallons a minute in 1911. h/
297	$\frac{1}{2}$	12.5	Sept 22, 1932	J,G, 3	D,S	
298	--	--	--	J,H	D,S	
299	--	--	--	None	N	Water level was 30 to 35 feet above ground in 1889. Well now abandoned and
300	0	10.9	Sept.22, 1932	None	N	Had a flow of 40 gallons a minute in 1911. h/ plugged.
301	3	5.9	do.	J,H	D,S	Would flow 35 feet above ground when drilled. Had a flow of 60 gallons a
302	0	36.7	do.	J,G, 3	D,S	minute in 1911. h/
303	$\frac{1}{2}$	9.5	do.	J,G, 3	D,S	Water level was 32 feet above ground and would flow 100 gallons a minute at ground
304	--	--	--	J,H	D,S	level in 1895. f/
305	--	+	--	F	S	Estimated flow 2 gallons a minute at ground level Oct. 7, 1932.
306	--	--	--	None	N	Oil test, see driller's log.
307	2	+	--	F	S	Estimated flow at 25 gallons a minute at ground level. Sept. 22, 1932.
308	--	--	--	J,H	S	
309	--	--	--	T,E	Ind	Water used to drill oil test.
351	--	--	--	A,G, 22	S	Casing: 200 feet of 6-inch and 4-inch to bottom. Set 40 feet of strainer at bot-
352	--	--	--	J,H	D,S	tom. Water for analysis was taken from new well at same depth in 1933.
353	--	--	--	J,G, 5	S	Well originally flowed at 18 feet above ground but now water level is about 2
354	--	--	--	J,W	D,S	feet below ground.

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
355	--	--	--	J,G, 3	D,S	
356	?	9.4	Sept.21, 1932	J,H	S	

c/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J.A., Preliminary reports on the artesian wells of the Gulf Coastal slope: Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp.154-176, 1914.

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Records of wells in Galveston County--Continued

No.	Distance from Texas City	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
357	3 $\frac{3}{4}$ miles west southwest	Texas City Natl. Bank	Layne-Texas Co.	1913	1,009	8	936	73
e/358	1 mile west southwest	Vacuum Oil Co.	J. A. Walling	1920	993	10	704 900	31 93
e/359	1 mile southwest	Sinclair Refining Well 1	--	1908	970	6	--	--
d/360	do.	Sinclair Refining Well 3	--	1919	1,030	10	--	--
e/351	do.	Sinclair Refining Well 2	--	1919	1,030	8	--	--
e/362	do.	Sinclair Refining Well 4	--	1907	--	--	--	--
363	4 miles southwest	Texas Highway Dept.	Louis Cange	1916	185	--	--	--
364	do.	R. J. Powers	-- Whittington	--	50+	6	--	--

No.	Galveston	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/401	Galveston, End of Causeway	Galveston Wharf Co.	Layne-Texas Co.	1928	1,498	--	126 332 734	147 59 32
e/402	On Winnie St. or Ave. G. between 18th and 45th Sts.	City of Galveston	--	Old	900+	--	1,028 1,335 1,423 --	178 44 68 --
e/403	At 17th St. and Ave. G	do.	--	Old	1,346	--	840 1,346	-- --
e/404	Between 30 & 31st Sts. & G & H Ave.	do.	Galveston Artesian Well Co.	1893	3,070	26	--	--
405	41st St. & Ave. G	Galveston Rice Milling Co.	--	--	1,300+	--	--	--
e/406	33rd St. & Ave. F	Triple X Brewing Co.	Layne-Texas Co.	1911	1,335	10	759 1,124 1,194	49 19 143

- a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.
- b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric; S, steam; O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hand.
- c/ P, public; I, irrigation; Ind, industrial; RR, railroad; D, domestic; S, stock; N, not used.
- d/ See analysis table for analysis of water from this well.

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No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
357	1	+	--	F	S	Flow estimated at 5 gallons an hour, Oct. 12, 1931.
358	--	+	--	F	Ind	Casing: 98 feet of 10-inch, 891 feet of 6-inch and 43 feet of 4-inch.
359	--	+	--	F	Ind	
360	--	+	--	F	Ind	
361	--	+	--	F	Ind	
362	--	--	--	None	N	Well failed and abandoned.
363	1	+	--	F	D,S	Temperature 75° F.
364	--	--	--	J,H	N	

No.	Height of bench mark above (+) ground (ft.) a/	Water level		Pump and kind and amount of power b/	Use of water c/	Remarks
		Below bench mark (ft.)	Date of measurement			
401	--	--	--	None	N	The water from each stratum was tested and was salty. The best water was found at 332 to 402 feet. Well abandoned and
402	--	--	--	None	N	Group of 12 wells from 810 to <u>filled</u> . 973 feet deep with original flows 28 to 380 gallons a minute used for city supply at Galveston until 1896. g/ h/ Wells are now abandoned. Water contained 2,000 to 2,500 parts per million of chloride. g/
403	--	--	--	None	N	Original flow 425 gallons a minute. Well now abandoned.
404	--	--	--	None	N	Test well for better supply but drillers record states that water was saltier each succeeding stratum. Each water stratum
405	--	+	--	F	Ind	Well has <u>had a flow</u> . Well abandoned. small flow of gas.
406	--	+	--	F	Ind	Well had a flow of 300 gallons a minute and temperature of 88° F. f/ Casing: 1,334 feet of 10-inch with screens at 764 to 805, 1,119 to 1,140 and 1,208 to 1,326 feet. One of 3 similar wells. Other two drilled in 1906.

e/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J. A., Preliminary reports on the artesian wells of the Gulf Coastal slope. Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp. 154-176, 1914.

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Records of wells in Galveston County--Continued

No.	Galveston	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Principal water-bearing bed	
							Depth to top of bed (ft.)	Thickness (ft.)
e/407	Santa Fe Shops	Gulf, Colorado & Santa Fe Ry.	--	1887	797	12	755	42
e/408	28th St. & Ave. F	Bagging Factory	--	Old	810	--	--	--
e/409	26th St. & Ave. E	Brush Electric Light & Power Co.	--	Old	813	--	--	--
e/410	22nd St. & Ave. A	Fraser Ice & Cold Storage Co.	Layne-Texas Co.	1914	1,346	6	825 1,254	57 83
411	do.	do.	--	1927	500+ 800+	--	--	--
d/412	20th St. & Ave. A	Galveston Ice & Cold Storage Co.	Layne-Texas Co.	1912	1,345	10	818 1,217	38 125
e/413	do.	Texas Ice & Cold Storage Co.	do.	Old	856	6	--	--
e/414	18th St. & Ave. A	National Cotton Oil Co.	--	Old	1,328	--	--	--
e/415	20th St & Ave. I	Galveston City R. R. Co.	--	Old	330	--	--	--
e/416	Port Bolivar	Gulf Colorado & Santa Fe Ry.	Giles Williams	1913	1,088	10	972	35
e/417	Galveston, 11½ miles southwest	G. Sealy	Layne-Texas Co.	1929	1,000	10	589	53

a/ Bench mark is point from which water level measurement was made and was usually top of casing, top of pump base or top of water pipe clamp.

b/ T, deep well turbine; A, airlift; J, jack or suction; F, artesian flow; E, electric; S, steam; O, fuel oil; G, gasoline engine or tractor; W, windmill; H, hand.

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

d/ See analysis table for analysis of water from this well.

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No.	Height of bench mark above (+) ground (ft.) <u>a/</u>	Water level		Pump and kind and amount of power <u>b/</u>	Use of water <u>c/</u>	Remarks
		Below bench mark (ft.)	Date of measurement			
407	--	--	--	None	N	Casing: 78 feet of 12-inch, 9-inch set at 755 feet and 7-inch to bottom. Drift-wood encountered from 350 to 400 feet and at 750 feet. Had a flow of 104 gallons
408	--	--	--	--	--	Temperature 83° F. <u>a</u> minute in 1911.h/ Record from Singley. <u>g/</u>
409	--	--	--	--	--	Record from Singley. <u>g/</u>
410	--	+	--	F	Ind	6-inch casing to bottom. Screens set at 840 to 884, and 1,261 to 1,336 feet. Original flow 128 gallons a minute, <u>f/</u> present flow about 25 gallons a minute. <u>f/</u>
411	--	--	--	--	Ind	Two wells pumped for cooling water. Sample was composite from both wells.
412	--	--	--	F	Ind	10-inch casing to bottom. Screens set at 830 to 893 and 1,235 to 1,338 feet. Original flow 700 gallons a minute <u>f/</u> , present flow about 500 gallons a minute.
413	--	--	--	--	--	Three similar wells, record from Singley. <u>g/</u> .
414	--	--	--	--	--	Record from Singley. <u>g/</u>
415	--	--	--	--	--	Two similar wells. Water was said to be the least mineralized in city. Record
416	--	--	--	--	Ind	Casing: 10-inch at <u>from Singley g/?</u> 10 to 437, 8-inch at 304 to 976, and 6-inch at 952 to 1,088 feet. Screen set at 819 to 862 and 974 to 1,018 feet.
417	--	+	--	F	D,S	Casing: 10-inch 0 to 129, 8-inch 100 to 581, and 6-inch 557 to 641 feet. Screen set at 587 to 640 feet. Temperature 79 $\frac{1}{2}$ ° F. Flowing with gas.

e/ No field tests made on water from this well.

f/ Reported by driller.

g/ Singley, J. A., Preliminary reports on the artesian wells of the Gulf Coastal slope: Geological Survey of Texas 4th Annual report, pp. 97-105, 1893.

h/ Deussen, Alexander, Geology and underground water of the southeastern part of the Texas Coastal Plain: U.S. Geological Survey Water-Supply Paper 335, pp. 154-176, 1914.

i/ Letter from Henry Miller, lumber dealer at Alta Loma, Texas, to N. H. Darton of the U. S. Geological Survey, dated April 17, 1898.

"The main artesian system at this place, which supplies the city of Galveston, 17 miles distant, with fresh water, consists of 30 wells, distant from each other from 1,000 to 1,500 feet, and extending in a line almost due north and south. The variation in depth is slight, from 875 to 950 feet. The casing of each is 9 inches. Temperature is from 75° to 78°. Rise of water above surface is 22 feet. I have not the flow of each individual well, as they are all piped together 9 feet below the surface, discharging into a small reservoir, from which the water flows to Galveston through a 30-inch pipe, the city being some 17 to 18 feet lower than the reservoir. However, the individual discharge of these 30 wells varies but slightly, the total flow amounting to a little over 14,000,000 gallons each 24 hours, giving each well a yield of about 310 gallons per minute. You will understand this is natural flow, no pumping being done."

Records of field tests of samples from wells in Galveston County, Texas  
(Analyzed by Samuel F. Turner. Parts per million. For records  
of wells see corresponding numbers in well tables.)

Well No.	Owner	Date of collection	Depth of well (ft.)	Hardness as CaCO <sub>3</sub> a/	Chloride (Cl)	Sulphate (SO <sub>4</sub> ) b/
21	R. G. Strickland	--	200	160	190	1
23	Joe L. Taylor	--	800±	400	90	6
24	H. A. Carter	Oct. 20, 1932	88	300	110	10
25	G. H. & H. R. R. shops	Apr. 15, 1931	208	150	200	5
29	Emil Schenk	--	575	70	100	2
30	W. T. Hepwerth	--	584	50	240	5
31	Freund's Place	--	700±	45	240	5
32	City of Kemah	--	864	50	240	5
34	G. V. Triplet	--	12	550	240	30
35	J. O. Derrick	Sept. 8, 1931	75	450	330	5
61	R. O. Albright	Aug. 4, 1931	25	240	100	5
62	W. R. McClendon	--	170	150	340	40
63	G. C. Perkins	--	540±	45	170	5
64	A. N. Lockart	--	42	270	70	10
66	-- Sellman	--	218	120	260	5
67	S. J. Helton	--	227	130	260	5
82	St. L. B. & M. R. R.	--	642	70	200	15
84	Alcoa School	--	444	60	160	--
101	H. W. Carter	--	200±	140	140	2
102	John Saracco	Oct. 20, 1932	94	700	800	50
103	Tony Emite	--	20±	450	350	35
104	George Saracco	--	22	330	150	5
105	R. E. Nevell	Oct. 20, 1932	240	90	140	3
106	Hans Gouldman	--	1,100±	140	1,000	2
107	Foster Hoskins	--	215	150	370	1
108	Dickinson Ice Co.	--	576	30	120	1
113	E. Menotti	Oct. 20, 1932	504	25	80	10
114	J. H. Bland	Apr. 15, 1931	850±	45	130	2
116	J. W. Palmer	do.	65	500	450	50
118	Texas Dairy League	--	85	200	65	30
119	Santa Fe School	--	68	400	30	10
159	Charles Ellis	--	547	40	120	5
167	Public Well at San Leon	--	600±	40	150	10
169	T. W. Saunders	--	225	120	260	10
174	R. E. Breeding	--	227	100	250	5
176	G. J. Fromm	--	160	160	450	5
201	Theodore Korenek	--	22	340	65	10
202	Frank Bell	Sept. 21, 1932	105	270	190	5
203	State Highway	Apr. 15, 1931	860	45	250	10
205	G. E. & H. R. R.	--	914	140	800	5
206	A. J. Biron	Apr. 15, 1931	926	80	400	1
221	J. Metzler	--	--	950	800	40
222	S. M. O'Callaghan	--	30	370	270	35
223	Otis Walker	--	246	75	170	5
224	Texas-Louisiana Power Co.	--	1,038	110	900	1
227	do.	--	783	35	230	1
235	Texas City Terminal Ry.	--	547	45	260	1
239	do.	--	855	45	340	1
261	F. A. Bartlett	--	120	200	110	5
263	City of Galveston No. 6	--	888	65	400	1
264	City of Galveston No. 7	--	843	75	320	1

a/ Hardness as calcium carbonate by the soap method.

b/ Sulphate by turbidity method and may be as much as 25 per cent in error.

Records of field tests of samples from wells in Galveston County--Continued

Well No.	Owner	Date of collection	Depth of well (ft.)	Hardness as CaCO <sub>3</sub> a/	Chloride (Cl)	Sulphate (SO <sub>4</sub> ) b/
265	City of Galveston No. 2	Sept. 23, 1932	855	55	310	1
266	City of Galveston No. 3	--	866	100	450	1
268	City of Galveston No. 5	--	888	75	400	1
277	-- Friday	--	--	380	100	10
278	Mrs. H. Huntington	--	38	290	40	1
279	N. J. Mouna	--	120	300	140	10
280	N. S. Norris	--	118	300	140	5
281	C. R. Platzler	--	34	390	70	5
284	W. F. Reitmeyer	--	728	35	120	2
285	do.	--	410	80	210	5
287	J. Tacquard	Sept. 22, 1932	720	55	230	1
288	H. L. Roberts	do.	720	130	230	2
289	R. G. Roberts	do.	260	150	360	30
290	Charles Schiro	--	720	700	490	45
291	Hitchcock Ice & Fuel Co.	--	720	30	120	1
292	Dora Polla	--	97	750	650	1,000
293	L. Schanza	--	208	160	350	30
294	H. L. Roberts	--	710	35	100	10
295	Gulf Coast & Santa Fe Ry.	--	687	40	130	5
297	Charles Schiro	Sept. 22, 1932	720±	45	100	5
298	J. A. Bret	--	40	480	210	3
301	J. A. Minot	Sept. 22, 1932	763	25	110	10
302	Joe Tarraso	do.	790	120	280	10
305	H. G. Tacquard	--	450±	25	110	1
307	Hughes Est.	--	913	90	750	5
308	do.	--	100±	500	300	35
309	Humble Oil & Rfg. Co.	--	240	140	400	5
351	-- Derringer	--	533	20	140	5
352	R. F. Meisterhans	--	30	550	500	50
354	J. A. Perthus	--	235	170	340	45
355	P. H. Naschke	--	710	20	190	30
356	R. L. Whitburn	Sept. 21, 1932	117	280	170	2
357	Texas City Nat'l Bank	--	1,009	75	700	5
363	Texas Highway Dept.	--	185	125	320	20
364	R. J. Powers	--	50±	3,000	2,000	16,000
405	Galveston Rice Milling Co.	--	1,300±	500	5,000	1
411	Fraser Ice & Cold Storage Co.	--	500± 800±	250	1,500	5
412	Galveston Ice & Cold Storage Co.	--	1,345	500	4,000	1

a/ Hardness as calcium carbonate by the soap method.

b/ Sulphate by turbidity method and may be as much as 25 per cent in error.



Analyses of water from wells in Galveston County, Texas

Well No.	Owner	Date of collection	Depth of well (ft.)	Total dissolved solids (calc.)	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)
22	Ed. Lemcine	Aug. 21, 1933	23	2/ 569	--	0.12	128	40
23-a	Joe L. Taylor	Oct. 22, 1927	800	--	--	--	12	2
23-b	do.	July 19, 1933	800	2/ 586	--	9.2	51	33
27	Parke well	Dec. 24, 1928	88	2/ 501	16	3/1.7	102	36
62	W. R. McClendon	May 20, 1932	170	1,048	14	0.96	30	20
101	H. E. Carter	Mar. 26, 1928	200	2/ 913	21	3/3	33	15
103	Tony Enite	Aug. 1, 1933	20	--	--	0.51	--	--
108	Dickinson Ice Co.	Mar. 29, 1935	576	2/ 447	--	0.04	5	1.5
111-a	Fig Plant	Aug. 16, 1926	875	2/1,920	--	3/9.2	15	7
111-b	do.	July 18, 1933	215	832	19	0.34	20	12
184-185	Southern Pacific Ry.	Sept. 17, 1931	600	2/ 703	15	3/3.9	8.9	2.1
222	S. M. O'Callaghan	July 18, 1933	30	2/ 961	--	2.7	66	45
223	Otis Walker	do.	246	2/ 866	--	0.36	14	11
224-a	Texas-Louisiana Power Co.	Jan. 13, 1916	1,038	2/1,496	16	--	20	11
224-b	do.	May 10, 1932	1,038	1,608	36	0.17	26	11
224-c	do.	Mar. 29, 1935	1,038	--	--	--	--	--
226	do.	May 9, 1910	812	682	19	--	7.8	2.5
227-a	do.	July 18, 1933	783	822	21	0.20	8.5	3
4/227-b	do.	Mar. 30, 1935	758	2/ 821	--	0.18	9.1	3.4
230	Pan American Refining Corp.	July 19, 1933	611	811	22	0.82	7.7	3.1
239	Texas City Terminal Ry.	do.	855	990	20	1	9.2	3.4
264-a	City of Galveston	July 22, 1933	843	852	27	0.13	20	6.6
264-b	do.	Mar. 29, 1935	843	2/ 979	--	0.15	26	8
279	N. J. Mouna	July 22, 1933	120	2/ 765	--	1.9	42	30
281	C. R. Platzner	do.	34	2/ 464	--	0.11	115	32
289	R. G. Roberts	do.	260	2/1,095	--	2.9	23	18
291-a	Hitchcock Ice & Fuel Co.	do.	720	577	23	0.47	8.7	3.5
291-b	do.	Mar. 29, 1935	720	--	--	--	--	--
293	L. Schanza	Oct. 10, 1930	208	--	24	3/0.7	22	5.8
298	J. A. Bret	Aug. 1, 1933	40	--	--	2.5	--	--
351	-- Derringer	July 22, 1933	533	2/ 569	--	3.3	7.1	2.8
352	R. E. Meisterhans	Aug. 1, 1933	30	--	--	3.3	--	--
355-a	P. H. Maschke	July 19, 1933	710	2/ 690	--	1.5	6.8	2.6
355-b	do.	Mar. 30, 1935	710	--	--	--	--	--
356	R. L. Whitburn	July 18, 1933	117	2/ 846	--	0.89	49	18
366	Sinclair Refinery No. 3	July 19, 1933	1,030	1,875	30	0.38	28	12
412	Galveston Ice & Cold Storage Co.	May 10, 1932	1,345	5,840	35	2.2	90	54
416	Gulf Colorado & Santa Fe, R. R.	Jan. 1, 1932	1,088	2/1,800	44	3/4.8	16	6.3
417	Geo. Sealy	July 2, 1927	1,000	1,705	--	--	54	31

1/ Combined figures for sodium and potassium were not determined, but were calculated as sodium.

2/ Sum of constituents reported.

(Parts per million. Well numbers correspond to numbers in table of records of wells.)

Well No.	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulphate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub>	Analyst
22	32		451	12	105	30	484	Margaret D. Foster
23-a	--		268	--	72	--	38	Felix Paquin
23-b	141		520	7.2	97	0.10	263	Margaret D. Foster
27	41		532	1.5	40	0.39	403	Felix Paquin
62	354	8.2	602	60	271	3.7	157	Margaret D. Foster
101	318		806	2.7	123	--	144	Felix Paquin
103	--		510	36	325	2.3	345	Margaret D. Foster
108	181		370	1.7	75	0.64	19	Do.
111-a	736		334	1.7	985	--	66	Felix Paquin
111-b	292	3.8	600	0.8	175	0.30	99	Margaret D. Foster
184-	--		443	--	182	1.2	31	C. S. Wilson
185								
222	254		603	33	265	0.88	350	Margaret D. Foster
223	332		688	3.3	166	0.61	80	Do.
224-a	--		261	--	767	--	95	Houston Laboratories
224-b	578	5.6	346	1.4	775	0	110	Margaret D. Foster
224-c	--		355	1	758	--	114	Do.
226	261		379	6.5	198	--	30	Houston Laboratories
227-a	311	3.9	478	1.1	230	0.20	34	Margaret D. Foster
4/ 227-b	324		475	1.6	248	0.40	37	Do.
230	305	3.8	578	1.6	162	0.12	32	Do.
239	371	3.5	511	0.8	305	0.20	37	Do.
264-a	302	3.8	331	1.2	330	0.10	77	Do.
264-b	356		333	2.6	422	0.38	98	Do.
279	229		626	12	140	3.8	228	Do.
281	22		438	4.9	70	3.8	419	Do.
289	398		598	4.5	355	0.20	131	Do.
291-a	213	2.2	399	1.3	124	0.05	36	Do.
291-b	--		399	1	126	--	28	Do.
293	--		304	--	302	--	79	Felix Paquin
298	--		481	22	215	1.2	405	Margaret D. Foster
351	226		431	1.5	118	0.05	29	Do.
352	--		602	5/160	925	0.75	758	Do.
355-a	269		447	1.2	189	0.15	28	Do.
355-b	--		450	1	186	--	21	Do.
356	274		664	2.2	171	4.5	196	Do.
366	680	6	350	1.2	940	0.5	119	Do.
412	2,096	23	331	0.6	3,381	0	446	Do.
416	676		446	0.9	830	--	66	Houston Laboratories
417	588		728	25	648	--	262	Felix Paquin

3/Iron and aluminum oxides.

4/Drilled to take place of well No. 227-a.

5/Approximate.

Table of Drillers' Logs, Galveston County, Texas

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 3</u>		
Mrs. Annette Voss, owner.		
Clay	128	128
Sand	6	134
Clay	23	157
sand	12	169
Clay and shells	14	183
Gumbo and clay	176	359
Sand	11	370
Gumbo	31	401
Clay and shells	12	413
Hard layer	2	415
Gumbo	26	441
Sand	41	482
Clay	6	488
Sand	9	497
Clay	9	506
Sand	149	655
Clay	13	668
sand	23	691
Clay	14	705
Sand	50	755
Clay	8	763

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 26</u>		
Galveston, Houston and Harrisburg Railway, owner.		
Soil	8	8
Yellow clay	92	100
Blue shale	10	110
Fine sand	4	114
Blue clay	46	160
Sand	5	165
Clay and gravel	5	170
Hard pan	10	180
Clay	22	202
Sand	8	210
Clay and gravel	15	225
Blue clay	37	262
Fine sand	23	285
Blue clay	105	390
Blue sandy clay	60	450
Sand	20	470
Blue clay	50	520
Blue sand	8	508
Hard clay	15	523
Rock	1	524
Clay	121	645
Sandy clay	45	690
Rock	3	693
Clay	7	700
Good water sand	50	750
Clay	30	780
Blue clay	40	800
Blue sandy clay	130	930
Clay and gravel	5	935

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 26--Continued</u>		
Good coarse sand	40	975
Sand and gravel	45	1020

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 85</u>		
Algoa Townsite Company, owner.		
Clay and soil	36	36
Sand	14	50
Clay	45	95
Sand	5	100
Red clay	92	192
Gumbo	6	198
Rock	11	209
Sand	12	221
Rock	6	227
Hard and soft clay	49	276
Clay and gumbo	147	423
Sand rock	17	440
Packed sand	9	449
Hard sand rock	4	453
Sand	45	498
Gumbo	51	549
Sand rock	6	555
Gumbo	62	617
Sand	60	677
Rock	2	679
Sand	14	693
Gravel	43	736
Gumbo	20	756
Clay and boulders	5	761
Gumbo	17	778
Sand rock	5	783
Shale and gumbo	9	792
Sand and rock	4	796
Gumbo	77	873
Gravel	8	881
Gumbo	2	883
Sand rock	34	917
Hard clay	10	927
Gumbo	56	983
sand	13	996
Gumbo	8	1004
soft rock	6	1010
Gravel	19	1029
Gumbo	10	1039
Coarse sand	33	1072
Hard rock	3	1075
Gumbo	4	1079
Coarse sand	6	1085
Gumbo	22	1107
Sand, gravel and shell	21	1128
Gumbo	10	1138
Sand	42	1180
Gumbo	37	1217
Sand	9	1226

(Continued on next page)

Table of Drillers' Logs, Galveston County--Continued

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 85--Continued</u>		
Gumbo - - - - -	30	1256
Rock - - - - -	5	1261
Sand - - - - -	37	1298
Gumbo - - - - -	4	1302
Hard sand - - - - -	14	1316
Very hard sand - - - - -	3	1319
Hard sand - - - - -	14	1333
Soft gumbo - - - - -	3	1336
Soft sand - - - - -	19	1355
Hard sand - - - - -	4	1359
Rock - - - - -	3	1362

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 108</u>		
Dickinson Ice Company, owner.		
Clay - - - - -	10	10
Sand - - - - -	20	30
Clay - - - - -	50	80
Sand - - - - -	90	170
Clay - - - - -	40	210
Shale - - - - -	246	456
Fine sand - - - - -	41	497
Sand - - - - -	20	517
Gumbo - - - - -	14	531
Sand - - - - -	41	572
Gumbo - - - - -	4	576

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 224</u>		
Texas-Louisiana Power Company, owner.		
Soil and clay - - - - -	6	6
Sand - - - - -	26	32
Clay - - - - -	20	52
Sand - - - - -	9	61
Shale - - - - -	31	92
Sand - - - - -	24	116
Soft shale - - - - -	45	161
Hard shale - - - - -	41	202
Shale - - - - -	332	534
Sand - - - - -	36	570
Gumbo - - - - -	69	639
Clay - - - - -	32	671
Sand - - - - -	38	709
Clay - - - - -	81	790
Sand - - - - -	40	830
Clay - - - - -	18	848
Sand - - - - -	190	1038
Clay - - - - -	1	1039

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 268</u>		
City of Galveston Number 5.		
Soil and clay - - - - -	16	16
Sand - - - - -	12	28
Clay - - - - -	3	31
Sand - - - - -	12	43
Sandy clay - - - - -	39	82
Clay - - - - -	20	102

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 268--Continued</u>		
Sand - - - - -	25	127
Clay - - - - -	17	144
Sand - - - - -	6	150
Clay - - - - -	278	428
Sand - - - - -	17	445
Clay - - - - -	138	583
White sand - - - - -	27	610
Clay - - - - -	94	704
Sand - - - - -	168	872
Clay - - - - -	16	888

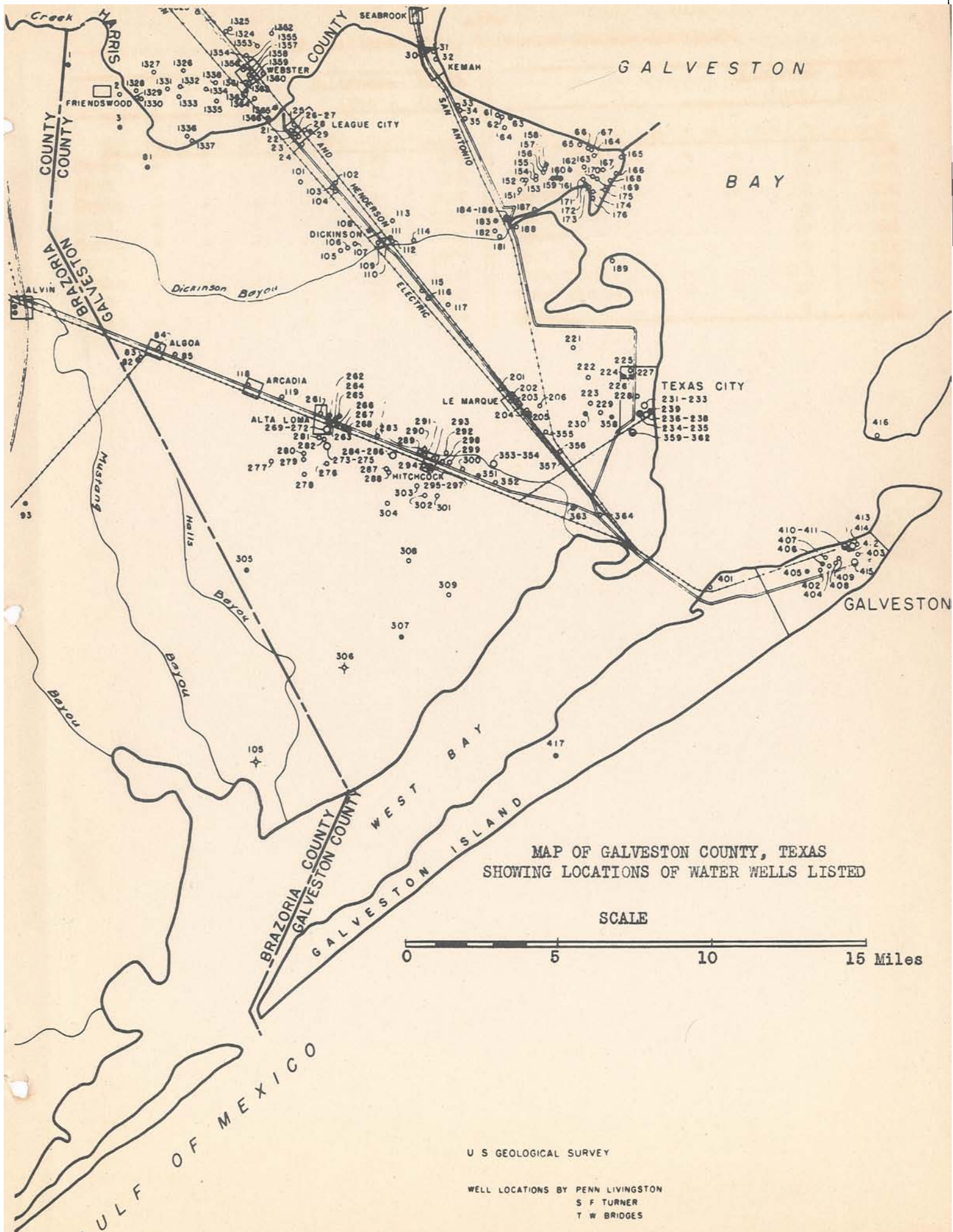
	Thickness (feet)	Depth (feet)
<u>Driller's log of well 306</u>		
The Texas Company's Coon Number 1.		
Yellow sand - - - - -	20	20
Gray sand - - - - -	47	67
Soft blue gumbo - - - - -	31	98
Gray sand - - - - -	24	122
Blue gumbo - - - - -	41	163
Sand - - - - -	20	183
Blue gumbo - - - - -	34	217
Sand - - - - -	22	239
Blue gumbo - - - - -	64	303
Sand - - - - -	21	324
Blue gumbo - - - - -	160	484
Blue sand - - - - -	10	494
Blue gumbo - - - - -	152	646
Gray sand - - - - -	20	666
Blue gumbo - - - - -	162	828
Gray sand - - - - -	268	1096
Blue gumbo - - - - -	4	1100

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 406</u>		
Triple X Brewing Company, owner.		
Sand and silt - - - - -	37	37
Clay - - - - -	33	70
Sand - - - - -	10	80
Clay and shale - - - - -	110	190
Rock - - - - -	1	191
Clay and shale - - - - -	86	277
Fine sand - - - - -	39	316
Clay and shale - - - - -	82	398
Sand - - - - -	49	447
Clay - - - - -	10	457
Sand - - - - -	27	484
Clay - - - - -	8	492
Sand - - - - -	10	502
Sand and shale - - - - -	51	553
Sand rock - - - - -	9	562
Clay, shell and shale - - - - -	130	692
Sand - - - - -	6	698
Gumbo - - - - -	61	759
Sand - - - - -	49	808
Gumbo - - - - -	25	833
Sand - - - - -	7	840

(Continued on next page)

Table of Drillers' Logs, Galveston County--Continued

						Thickness		Depth			
						(feet)		(feet)			
<u>Driller's log of well 406--Continued</u>											
Gumbo	-	-	-	-	135					975	
Sand	-	-	-	-	10					985	
Gumbo	-	-	-	-	42					1027	
Sand	-	-	-	-	7					1034	
Gumbo	-	-	-	-	40					1074	
Rock	-	-	-	-	1					1075	
Gumbo	-	-	-	-	12					1087	
Sand	-	-	-	-	16					1103	
Gumbo	-	-	-	-	11					1114	
<u>Driller's log of well 406--Continued</u>											
Hard rock	-	-	-	-					10	1124	
Shell and sand rock	-	-	-	-					19	1143	
Gumbo	-	-	-	-					19	1162	
Sand rock	-	-	-	-					10	1172	
Gumbo	-	-	-	-					12	1184	
Hard rock	-	-	-	-					10	1194	
Sand rock	-	-	-	-					121	1315	
Sand and gravel	-	-	-	-					12	1327	
Gumbo	-	-	-	-					8	1335	



MAP OF GALVESTON COUNTY, TEXAS  
SHOWING LOCATIONS OF WATER WELLS LISTED

SCALE



U S GEOLOGICAL SURVEY  
WELL LOCATIONS BY PENN LIVINGSTON  
S F TURNER  
T W BRIDGES