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## GALVESTON COUNTY, TEXAS

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

\* \* \*

bу

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

## GALVESTOF COUNTY, TEMAS

\* \* \*

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 bods are sand or gravel.)

		(Pr	incipal water-bear	ring bods are s	and of	r .rreve	e1.)		
*****		İ					i I	Princip	al water-
No.		Distance from	Ownor	Drill r	Date	Dopth	Diam-	beeri	ng bod
		Lergue City	i 1		com-	of	etar	Dopth	Thick-
		1	Į.		n1	well	of	to top	noss
		•	•		ted	(ft.)		of bed	(ft.)
			\$ e.			(200)		(ft.)	(,
e/	- <del></del> -	8 miles west	Garretson	Layne-Texas	1915	? 600	24	400	200
₹/	-1	northwest	7571908011	Co.	12210	. 000	~ -	100	200
		northwest		00.	!			† !	
			1		İ		! !	1	
					1		<u> </u>		
<u>e</u> /	2	6 miles west	J. R. Williams			600	+ 8	1	
		northwest					1		
<u>e</u> /	3	$5\frac{3}{4}$ miles	Mrs. Annette	Layne-Texas	1910	763	24	506	149
		west	Voss	Co.	}		1	705	50
		1			i			i	
-	21	At League City	R. G. Strickland	Pat O'Day	1932	200	3		
			1			,			
₫/	22	do.	Ed Lemoine	Wm. Boeske	1933	23	4분		
<u>a/</u>	, 34.7			W.III. 2005.10	1		-2		
3/	23	do.	Joe L. Taylor		014	800-	+ 4	<del> </del>	
4	JU	do.	los r. laytor		1 OTG	000	<del>*</del> **		
					! }			1	
-					12000			<del> </del>	
	34	mile south	H. L. Carter		1930	88	2		
			1		; 				Szádládjárodálokk évelpelen vássang
	25	At League City	G, H. & H. R. R.			208	8		
			shops		1				
e/	26	do.	do.	Layne-Texas	1905	1,020	8	935	85
_				Co.					
₫/	27	do.	Parke Well			88			
e/			•		i				
	28	do.	G. H. &. H. R R.			560-	+ 4		
			1				·		•
	29	do.	Emil Schenk	Fred Standard	1910	7 575	3		
	~ •	40.	i interpretation	Fied Dominging	1.0.10	. 070	Ü	]	
	′3.O	5 miles east	V. T. Herwerth		1930	584	2		
	UU	1	i v. i. deoweruit		1500	J54	ی ا		
-	(2.5	northeast		1		700			
	<b>3.</b> 1	5년 miles east	Fround's Place	<b></b>		700	<u>+</u> 4		
		northeast	de de la company		<del>                                     </del>			<u> </u>	
	32	5 miles east	City of Kemah	Gus Tarniecke	1907	864	4		
A	<del></del>	northeast		and state half little or delict orders of animal feature, shared meaningly programs					
<u>e</u> /	33	55 miles east	McClintock Est.	do.	1903	622	4	590	
			<u> </u>					i	
	34	do.	G. V. Trioplet			12	3		
*******	35	do.	J. O. Derrick	Cuarles Ellis		75	2 <del>1</del>		T
							~	[	
	61	6 miles east	R. O. Albright	Paladino	11928	25	3		
		1	1					i :	
						L	L	<u> </u>	

a/ Bench mark is point from which water lovel measurement was made and was usually top of casing, top of nump base or top of water hips clamp.

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

c/ P, public; I, irrigation; Ind, industrial; RR, railmosd; 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.)

				<del>,</del>		
No.	Height of bench mark		r level	Pump and kind and	1	Remarks
	above (+)		measure-	•	water	1
	ground	1	ment	of power	1	
	(ft.) <u>a</u> /	(ft.)		b/		
1	122	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 59 feet. Water level was 8 feet below surface when well was completed. £
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.	Т,G,	D,S,I	Casing: given by Singley in 1893. g/ 55 feet of 24-inch and 11 5/8-inch to bottom. Screens set at 550 to 648 and
21				J, E,	D,S	700 to 755 feet. See driller's log-
22	alv sell		***	J,H	D	
23	- 20			J, E,	P,D,S	Well reported to have had a flow until 10 years ago. Difference in two analysos indicates that casing is now probably
24	ā	20.4	Oct. 20, 1932	J,∃, <del>1</del>	P,D,S	
25	-9 <u>.1</u>	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 84-inch screen. See driller's log.
27				+		See analysis Ceased flowing in 1929. of w ter made for G. H. & H. Railroad.
28	0	25.3	Apr. 15, 1931	None	N	Exact location of well not known.
29	=-			A,-	P, D	Well ceased flowing about 1922.
30	Spin and			neghover venteralningsplechingsventeral	P, D, S	Public supply for Kemah.
31	- ş-	-,-		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. h/ Well ceased flowing
34	-			J,H	D,S	about 1915.
35		15.2	<b>S</b> ept. 3, 1931	J,H	d,s	No screen. Open end casing in very fine sand.
61	<u> </u>	9,5	Aug. 4, 1931	J,H	D	,
0/ N	To finld too		2			7 7

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

f/ Reported by driller.

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

h/ Deussen, Alexander, Goology 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 Principal water-Driller Date Depth Diambearing bed Distance from Owner No. Depth Thickcom- of  $\mathtt{eter}$ League City nle-|weil to top ness  $\circ \mathbf{f}$ (ft.) ted (ft.) well of bed (ft.) (in.) 18 '. R. McClendon Charles Ellis 1931 170 152 62 65 miles east 2늘 G. C. Perkins -- Martin 1924 540+ 63 7 miles east 1929 42 64 65 miles east A. N. Lockart A. N. Lockart 65 8 miles east -- Moore Charles Ellis 1930 215 2=1 203 12 22 -- Sellman 1930 218 196 66 75 miles cast do. S. J. Holton 1930 227 23 201 26 do. do. Principal water Date Denth Diambearing bed Driller Distance from Cumor No. eter Depth Thick-Alta Loma comof to top ole-wall  $\circ f$ ness ted (ft.) well of bed (ft.) (in.) (ft.) 600+ 81,10 miles -- Dirmitt 1916 A. D. Dyess northwest St. L. B. & M. 1926 L. Patterson 642 632 10 82 6 miles west northwest RR. Layne-Texas 1906 650 622 21 83 do. do. Co. 84 5 miles west Algoa School Ed Metzler 1916 444 northwest 1907 1,362 85 5 miles west Algoa Tornsite Lavno-Texas 453 45 northwest 617 60 Co. d/101 8 miles north H. E. Carter +000 John Saracco 102 do. 1924? 94 Tony Emite 20+ d/103do. 1 104 do. Grofge Sarricco George Saracco 1932 22 48 105 5 miles north R. J. Newell 240 1915? 4 Hans Gouldman 106 6 miles north 1924?1,100+ 3 107 do. Foster Hoslins 1925? 215 d/108 6 miles north Layne-Texas 1922 576 6 Dickinson Ice 497 20 northeast Co. Co. 531 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 vater 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, nublic: 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 Water level Pump and Use Romarks No. Height of bench mark Bolow Date of kind and ofbench measureamount water above (+) ground mark mont of power c/ (ft.) a (ft.) b/ Screen set at 155 to 170 feet. First 62 J,H D water sand at 85 to 110 feet not screen-63 P, D, S Public supply for Clifton by the J.G. 15 64 J,H D,S 65 A,G, D 1분 66 J,H D Set 10 feet of screen in bottom. 67 J.H Set 20 feet of screen in bottom. No. Height of Water level Pump and Use Remarks bench mark Below Date of kind and of above (+) bench measureamount water ground mark | ment of nower c/ (ft.) a/ (ft.); b/ 1 33.9 Oct. 11, 81 J.G D,S,I Formerly Gulf Coast Orchard well. 1931 82 J,S Water level reported as 17 feet below RR surface in 1929. Screen set at 632 to 83 None Casing, 621 fast of 6-inch and 21 feet of 6-inch screen. J,H 84 At Algos. Casing, 705 fest of 8-inch. 85 Screens set at 459 to 481 and 626 and 686 feet. Sco 101 J,G, D,S,I driller's log ----5 102 2 13.8 Oct. 20,  $\mathfrak{S}$  $J_{\bullet}X$ 1932 103 J, H S 104 J, H S Dug woll. 1.05 Oct. 20, J, G, 0 6.7 D,S 1932 3 F,J,E, 106 Used to supply swimming pool. 3 107 J, E, D.S Will 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. Vater 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., Proliminary 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   Cwncr   Driller   Date   Doth   Do		Re	ecords of wells in	n Galveston Cour	Galveston CountyContinued						
No.   Distance from   Cwner   Driller   Date   Doubt   Diam   Depth   Thickness   Diam   Doubt   Date					<u> </u>			Principa	al watr-		
Alta Lora	No.	Distance from	Cwncr	Driller	Date	Depth	Diam-	bearin	ng bed		
			; •		j	1					
		TITUS DOMA			ŧ .	i	1	. "	i		
2/109   C_2 miles north   Dickinson High       230   3			1								
					10.00	(10.)		· ·	(10.)		
Northeast	/200	C1 1	Dieleingen ITiek		ļ	930		11 00 1			
3/110   do	<u>⊇</u> \ 108					200	J	]			
A/111   do.   Dickinson Fig       875   8   210   20					<del> </del> -	200		<del> </del>			
e/112         do.         G. H. & N. R. R. Gus Warnocke          750         3         650          750         13         650           750         13         650           113         7 miles north         E. Monotti          1925         504         6 <td>e/110</td> <td>qo</td> <td>Nichols Wall</td> <td><i></i></td> <td></td> <td>600</td> <td>3</td> <td></td> <td></td>	e/110	qo	Nichols Wall	<i></i>		600	3				
e/112         do.         G. H. & N. R. R. Gus Warnocke          750         3         650          750         13         650           750         13         650           113         7 miles north         E. Monotti          1925         504         6 <td></td> <td></td> <td></td> <td></td> <td>[</td> <td></td> <td></td> <td></td> <td></td>					[						
e/112         do.         G. H. & N. R. R. Gus Warnocke          750         3         650          750         13         650           750         13         650           113         7 miles north         E. Monotti          1925         504         6 <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td> <td></td> <td></td> <td></td>					<u> </u>						
e/112         do.         G. H. & N. R. R. Gus Warnocke          750         3         650          750         13         650           750         13         650           113         7 miles north         E. Monotti          1925         504         6 <td><u>d</u>/111</td> <td>do.</td> <td></td> <td></td> <td></td> <td>875</td> <td>8</td> <td>210</td> <td>20</td>	<u>d</u> /111	do.				875	8	210	20		
e/112         do.         G. H. & N. R. R. Gus Warnocke          750         3         650          750         13         650           750         13         650           113         7 miles north         E. Monotti          1925         504         6 <td>5/</td> <td></td> <td>Plant</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td>	5/		Plant					1			
113 7 miles north   E. Monotti     1925 504 6           114   do.   J. H. Bland     1994 850± 4         2/115 6 miles   J. T. Palmer     1925 526 4   475 50	<del></del>		The state of the s		İ	i					
113 7 miles north   E. Monotti     1925 504 6           114   do.   J. H. Bland     1994 850± 4         2/115 6 miles   J. T. Palmer     1925 526 4   475 50											
113 7 miles north   E. Monotti     1925 504 6           114   do.   J. H. Bland     1994 850± 4         2/115 6 miles   J. T. Palmer     1925 526 4   475 50	e/112	do.	G. H. & H. R.	Gus Warnocke		750	3	650			
113 7 miles north   E. Monotti     1925; 504   6           114   do.   J. E. Bland     1994   850±   4         2/115 6 miles   J. T. Palmar     1925   526   4   475   50     116   do.   do.     1912; 65   4         3/117   do.       3         118 2½ miles west   Texas Dairy   northwest   Lergue     35   3         119 1½ miles west   Sante Fe     1928   68   2         119 1½ miles west   Sante Fe     1928   68   2         119 1½ miles west   Sante Fe     1928   68   2         119 1½ miles west   Sante Fe     1928   68   2         119 1½ miles west   Sante Fe     1928   68   2         120 14 morthwest   School   Driller   Date Deoth Diam   Depth Thick of to top ness of bed (ft.)     2/151 8 miles   Pete Witik   Pat O'Day     90   4         2/152   do.     Beaty   do.     185         2/153   dc.   C. O. Caste     Burns   1913   478   2         2/154   do.   L. F. Bachman   Charles Ellis     180   2½   158   22     2/155   dc.   G. B. Slate   do.   1931   170   2½   144   26     2/156 8 miles north   D. C. Richards   D. C. Richards   1924   580±   2½   550       2/157   do.   do.   do.   1923   185   3					•			i			
northeast   114   do.   J. H. Bland     1394   850+   4	117	7 miles north	F Manotti		1925	504	6	<del></del>	****		
114   do.   J. H. Bland     1894   850+ 4	110		M. Memover		1000	001	Ů				
O/115 6 miles   D-17. Palmer   O-1925   526   4   475   50	7.7.4		T II Dlond		1004	050	. 4	<del></del>			
Northeast   116   do.   do.     1912   65   4	7.7.4	do.	J. H. Diand	 !	T034	000	+ 4				
Northeast   116   do.   do.     1912   65   4	7				1005	= 50.0		1==			
116   do,    <u>e</u> /115	1	J. W. Palmer	uun 444	1925	526	4	475	50			
### ### ##############################					ļ 						
118   2½ miles west   Texas Dairy       85   3           119   1½ miles west   Santo Fe   School     1928   68   2         No. Distance from Texas City   Driller   Date Depth   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Depth   Diamorthwest   Diamorth	116	do.	do.		1912	65	4				
118   2½ miles west   Texas Dairy       85   3           119   1½ miles west   Santo Fe   School     1928   68   2         No. Distance from Texas City   Driller   Date Depth   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Depth   Diamorthwest   Diamorth											
118   2½ miles west   Texas Dairy       85   3           119   1½ miles west   Santo Fe   School     1928   68   2         No. Distance from Texas City   Driller   Date Depth   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Diamorthwest   Depth   Diamorthwest   Diamorth	e/117	do.					3				
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No.   Distance from   Cwner   Driller   Date   Cwner   Cwner   Driller   Date   Cwner   Cwner   Cwner   Cwner   Driller   Cwner   Cw	118	2 miles west	Texas Dairv			85	3				
119   12 miles west   Sante Fe   School			_		<u> </u>						
No.   Distance from   Cwner   Driller   Date   Depth   Diambering   Depth   Com- of of ted   Depth   Thick- to too of ted   Depth   Com- of ted   Depth   Depth   Thick- to too of ted   Depth   Com- of ted   Depth   110	the same of the sa			1028	68	9					
Distance from Texas City   Driller   Date   Depth   Com- of ple- well   Com- of ple- well   Com- of ple- well   Com- of ple- well   Com- of	110		•		1 1000	00	2				
Distance from Texas City   Driller   Date   Depth   Diam   Dearing bed   Depth   Thick-   Of   well   (ft.)   well   (in.)   (ft.)		norenwase	DC11001		<u> </u>						
Texas City						•	; }	>			
Ple- well of to top ness (ft.)   Ple- well of bed (in.)   Ple- well (in.)   Ple- w	No.	j .	Cwner	Driller	:	•		·			
ted (ft.)   well of bed (ft.)		Texas City			com-	of	eter	Depth	Thick-		
e/151   8 miles					ple-	well	$\circ \mathbf{f}$	to top	ness		
e/151   8 miles					ted	(ft.)	well	of bed	(ft.)		
Pete Witik   Pat O'Day     90   4			:			•		1	,		
northwest   e/152   do.   Beaty   do.   185	e/151	8 miles	Pete Witik	Pat O'Day							
e/152 do Beaty do 185 e/153 do. C. O. Caste 1 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 e/157 do. do. do. 1923 185 3	<u> </u>	1	1 2000 11111	140 0 24,			_				
e/153 do. C. O. Caste 1 Burns 1913 478 2 e/154 do. L. F. Backman Charles Ellis 180 2½ 158 22 e/155 do. G. B. Slate do. 1931 170 2½ 144 26 e/156 8 miles north D. C. Richards D. C. Richards 1924 580+ 2½ 550 northwest e/157 do. do. do. 1923 185 3	0/159		Postr	An.		1.25					
e/154     do.     L. F. Bachman     Charles Ellis      180     \$\frac{2}{12}\$     158     22       e/155     do.     G. B. Slate     do.     1931     170     \$\frac{1}{2}\$     144     26       e/156     8 miles north northwest     D. C. Richards     D. C. Richards     1924     580+     \$\frac{1}{2}\$     550        e/157     do.     do.     do.     1923     185     3	E. TON	uo.	Beaty	uv.		100					
e/154     do.     L. F. Bachman     Charles Ellis      180     \$\frac{2}{12}\$     158     22       e/155     do.     G. B. Slate     do.     1931     170     \$\frac{1}{2}\$     144     26       e/156     8 miles north northwest     D. C. Richards     D. C. Richards     1924     580+     \$\frac{1}{2}\$     550        e/157     do.     do.     do.     1923     185     3	/1 E rz		0 0 01	D	1017	ARC	-	<b></b>			
e/155       do.       G. B. Slate       do.       1931       170 $2\frac{1}{2}$ 144       26         e/156       8 miles north northwest       D. C. Richards       D. C. Richards       1924       580+ $2\frac{1}{2}$ 550          e/157       do.       do.       do.       1923       185       3	e/ 103	ao.	U. U. Casteal	burns	TATO	478	2				
e/155       do.       G. B. Slate       do.       1931       170 $2\frac{1}{2}$ 144       26         e/156       8 miles north northwest       D. C. Richards       D. C. Richards       1924       580+ $2\frac{1}{2}$ 550          e/157       do.       do.       do.       1923       185       3				· · · · · · · · · · · · · · · · · · ·	ļ						
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e/156 8 miles north D. C. Richards D. C. Richards 1924 580+ 2½ 550 northwest do. do. 1923 185 3											
e/156 8 miles north D. C. Richards D. C. Richards 1924 580+ 2½ 550 northwest e/157 do. do. do. 1923 185 3	e/155	do.	G. B. Slate	do.	1931	170	$2\frac{1}{5}$	144	26		
northwest		]					~				
northwest	e/156	8 miles north	D. C. Richards	D. C. Richards	1924	580	21	550			
e/157 do. do. do. 1923 185 3	<u> </u>	;	D, O. MIDIMAD		LUNT		<u></u> ~ຂ				
	a/150	<del></del>		a -	1007	3.05	177	<b></b>			
	⊕\ T24	ao.	ao.	ao.	17923	TRO	3				
	<del></del>	<u>L</u>	<u> </u>		<u> </u>	L					

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, deen well turbine; A, airlift: J, jack or suction; F, artesian flow; E, electric: S, steam: O, fuel oil; G, gasoline engine or tractor; T, 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.

Ponn Livingston and Samuel F. Turner No. Height of Water level Pump and Uso Remarks binch mark Below Date of kind and ofabove (+) banch massuroamount water ground mark ment of power c/ (ft.) a/ (ft.) <u>b</u>/ 13,4 Apr. 15, 109 N At Dickinson. 0 None 1931 An analysis of water from this well was 110 --given by Singley in 1893.g/ Exact location of well not known. Original depth was 875 feet and 1,926  $\overline{111}$ analysis is of water from this depth. Well was reworked and plugged at 230 feet and 1933 analysis is of water from 210 to 112 Water level reported as +3 230 feet. 1 18.9 Apr. 15, J,H Ñ foot about 1912.h/ 1931 113 A, G, D,S 를 14.9 Oct. 20. 1932 114 15 12.0 Apr. 15, J,G D.S Water level reported as +8 feet about 1912.h/ Ceased flowing in 1923. 1931 115 4 19.4 Oct. 20, None N 1932 716 0 9.7 J,G, D,S do. 2 None 117 11.2 N 1 do. 118 J,E, Ind At Arcadia. 2 119 J,E P.D At Santa Fe School. No. Height of Water level Pump and Use Remarks Below Date of kind and bench mark  $\circ f$ above (+) bench measureamount water ground mark iment of power <u>c/</u> (ft.) a/ (ft.) b/ 151 J, H D,S 152 A,G, D.S 24 153 J,H D,S 154 A,G, D.S. I Twenty feet of screen set at bottom of well. 155 J, W D,S Twolve 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 Goological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

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

i∕ See nage

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Records of wells in Galveston County--Continued Principal waterbearing bed NO. Distance from Owner Driller Date Depth Diam-Depth Thick-Texas City com- of eter plo-well  $\circ f$ to top ness (ft.) | well of bed (ft.) ted (in.) (ft.) D. C. Richards 1930 185 20 e/158 8 miles north D. C. Richards northwest 159 75 miles north Charles Ellis Charles Ellis 1924 547 2를 523 24 northwest e/160C. J. Blume -- Martin 1023 557 4 523 25 do. R. M. Griffith e/161 do. Charles Ellis 1924 665 641 24 e/162 8 miles north Trinity Bay -- Martin 665 1924 --northwest Farm e/163 7 miles north Experiment Farm 1908 185 12 northwest e/164 8 miles north -- Hodges Charles Ellis 175 21 1930 155 20 e/165 7 miles north E. M. Biggers do. 225 1929 გ 204 21 e/166 7 miles north -- Keith 1930 187 21 175 12 do. 167 4 do. Public Well at Old 600+ --San Leon e/168 -- Butcher do. Charles Ellis 1930 165 2를 153 12 169 T. W. Saunders 225 do. do. 1929 202 23 e/170 do. Old --\_\_ e/171 600+ do. Galveston County Old e/172 do. Old 600 e/173do. Old 600 4 174 do. R. E. Breeding Charles Ellis 1928 227 201 26 e/175do. San Leon 1919 3,562 Development 176 6 miles north G. J. Fromm Charles Ellis 1931 160 2 1 142 18 e/181 7 miles 0. A. -- Burns 1912 480 2 --northwest Butterfield e/182 7 miles M. J. Sass Charles Ellis 1339 165 140 25 northwest e/183 do. Pat O'Day 1924 600 d/184 7 miles Southern Pacific 600 6 --northwest Ry. <u>d/185</u> do. do. 600 4 e/186 Fig Preserving do. -- Martin 600+ 4 Plant e/187do. George Knight -- Burns 1913 487 2

Penn Livingston and Samuel F. Turner

		<del></del>	Penn l	ivingsto	n and S	Samuel F. Turner
No.	Height of	Wato	r level	Pump and	Uso	Romarks
1,5,	bench mark			kind and	1	
	rbove (+)	1	monsure-	nmount	water	
	ground	1	mont	of power	! .	
	(ft.) <u>a</u> /	(ft.)	1117110	b/	-	
158		11100		$\overline{A,G}$	D.S.T	Twenty feet of screen set at bottom of
100				23	2,0,1	well.
159		<del> </del> -		A, G,	D.S.T	Temperature 77° F: 20 feet of screen set
100			•	30	D, D, 1	at 527 to 547 feet.
160				A, G,	D,S,I	
100				A, G,	D, O, 1	
161				A,G,	n.g. T	Well flowed when completed.
TOT.	<del></del>			23	,,,,,	WOLL LIONOR WHOLL COMPLETED TO CORE
162			<u> </u>	A, G,	D,S,I	
100				A, G,	D, D, I	
163				None	N	
100				MOHE	7.4	
164				J,E	D,S	Twelve feet of screen set at bottom of
TO4				ر1, ر	ت ور	
7.05		<del> </del>		1 0	<del>-</del> -	well. Twenty feat of screen set at bottom of
165	heath salay			A, G,	D,O, I	<b>f</b>
200		<u> </u>		3	70 G F	well.
166				A,G,	D,S,1	Ten feet of screen set at bottom of well
2.07				3		0.70
167				J,H	D,S,P	Reported flow of 70 gallons a minute in
		<del> </del>				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
1.00		<u> </u>				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				. =-		
	<del></del>					
174				J,₩	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.
		<u> </u>				
176	400 may			J,N	D,S	Water level at 2 feet below surface when
	<del>-</del>	<b></b>				drilled.
161				J,H	D,S	Well ceased flowing in 1928.
		<u> </u>				
182				J,H	D,S	Ten foet of screen set at bottom. Re-
		<b> </b>				ported yield of 40 gallons a minute when
183		<b>-</b> -		A,G,	D,S,I	completed.f/
				6		
184	~-			A	RR	At San Loon Station. Flowed until 1928.
						Water level reported as 6 feet below
185				A	RR	ground in 1931.
186				J, E	Ind	
187	40-44				D,S	Flowed until summer of 1931.

Records of Wells in Galveston County--Continued Principal waterbearing bed No. Distance from Cwner Driller Date Denth Diamcom- of eter Depth Thick-Texas City nla- well  $\circ \mathbf{f}$ to top ness (ft.) |well |of bed (ft.) ted (in.) (ft.) 22 Charles Ellis 130 e/188 65 miles -- Sutten northwest e/189 4½ miles -- Conklin 01d 700+ Dollar Bay Fig north Corporation 201 43 miles Theodore Lorenek 6 19121 22 west 202 45 miles Fren' Bell J. Anezan 1928 105 3 west  $203 4_{4} \text{ miles}$ F. A. Boehm 860 9-800 60 State Highway 1904 west 5/8 1918 861 35 e/204 4 miles G. H. & H. R. R. Layne-Texas 909 9west Co. do. do. 914 860 49 205 do. 5/8 206 35 miles A. J. Biron 1907 926 11-294 54 do. west 5/8 365 21 828 67 221 2 miles 4 J. 'etzel northwest 3. N. d/222 2 miles west 1932 30 S. M. northwest C'Callaghan O'Callaghan d/223  $1\frac{3}{4}$  miles Charles Ellis Ctis Walker 1931 246 2등 236 10 west d/224 At Texas City Texas-Lcuisiana Layne-Texas 1915 1,038 Power Co. Co. e/225 791 697 35 do. đo. đ٥. 1914 8 27 742 d/226 1910 812 do. do. ₫○. 674 91 771 29 d/227 1914 783 8 677 36 do. do. do. 722 44 e/228 "Depot Well" 740 do. 1896 4-\_\_\_ 1924 e/229 la miles Knox Process 574 12 540 28 Stoner & west Corp. Conklin 1933 611 12 440 20 d/230 2 miles Pan-American McLasters & 471 536 1.2 34 west Refining Corp. Pomercy s/231 At Texas City 1923 10 80 Texas Sugar Southern Well 582 425 535 Refining Co. Drilling Co. 47 392 144 1 124 610 10  $\epsilon/232$ do. do. do. 546 62 e/233 do. do. do. 1929 598 16 420 58 503 44

Penn Livingston and Samuel F. Turner No. Height of Water lovel Pump and Use Remarks bench mark Below Date of kind and ofabove (+) bench measureamount water ground mark ment of power <u>c/</u> (ft.) a/ (ft.) b/ 188 J,W D,S Twenty feet of screen set at bottom of well. 189 F, J, VD,S 201 D,S J.H 202 1 11.0 Sept.21, J, E, D,S 1932 203 None Casing: 800 feet of 9 5/8-inch and 60 0 2.2 Apr. 15, fet of 9 5/8-inch screen. 1931 204 J,H Casing: 869 feet of 9 5/8-inch and 40 feet of 9 5/8-inch screen. At Lamarque. 305 6.2 T RR. Casing: 874 feet of 9 5/8-inch and 40 2 Apr. 15. 1931 D,S feet of 9 5/8-inch screen. ಜ06 Casing: 910 feet of 11 5/8-inch with 0 7.2 J,W do. 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 221 1914.i/ and 50 in 1922. J.V D,S J,H 222 D,S 223 Ten feet of screen set in bottom of well. J,E, D,3 圥 224 Casing: 84 feet of 24-inch, 12-inch set F,T,E 20 at 762 feet, and 9 5/8-set at 964 feet but wooden plug set in top. Well drilled to 1,038 fect but plugged at 762 feet. Present flow estimated at 10 gallons a 225 N None Casing: 791 feet minute, Oct. 22, 1931, of 8-inch with screen set at 692 to 768 236 Oct. 22, None Casing: 812 feet of  $8\frac{1}{4}$ -inch with feet. 1931 screens set at 715 to 756 and 776 to 795 feet. Had a flow of 68 gallons a minute Casing: 783 feet of when completed.f/ 227 T,E, P 20 8-inch with screens set at 685 to 706 and 724 to 765 feet. Ceased flowing in 1915. 228 를 Oct. 22, None  $\overline{\mathrm{N}}$ Ceased flowing in Temperature 81° F. 1931 1928. 229 \_\_\_ N 230 T,E Ind Casing: 590 feet of 12-inch. Screens set at 440 to 460, 471 to 482, and 536 231 Casing: 463 feet of 10- to 570 feet. inch and 120 feet of 8-inch. Screens set at 463 to 503 and 543 to 583 feet. 232 \_\_\_ 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/

	F	Records of wells in	n Galveston Cou	aty(	Contin	ued		
******							Principa	al water-
No.	Distance from	Owner	Driller	Date	Depth	Diam-	beari	ng bed
•	Texas City			com-	of	eter	Depth	Thick-
				ple-	well	of	to top	ness
				ted	(ft.)	well	of bed	(ft.)
					`	(in.)	(ft.)	
e/234	At Texas City	Toxas City	Layne-Texas	1922	550	8 1	415	60
<u> </u>		Terminal Ry.	Ço,			_	500	45
235	do.	do.	do.	1922	547	8	420	40
200	40.	40.			<u> </u>		500	47
<u>e/236</u>	do.	do.	do.	1910	1,135	6	921	214
e/237	do.	₫o.	do.	1910	580	8		
<u>e</u> /238	do.	do.		1912	800			
<u>d</u> /239	do.	do,	<b></b>	1904	855	6		
					İ	ĺ	Princip	al water.
No.	Distance from	Owner	Driller	Date	Depth	Diam-	beari	ng bed
	Alta Loma			com-	1	eter	Depth	Thick-
				ple-	well	of	to top	ness
				ted	(ft.)	well (in.)	of bed (ft.)	(ft.)
261	At mlta Loma	F. A. Bartlett	F. A. Bartlett	1929	120	4		
e/262	do.	City of	Layne-Texas	1914	840	24	715	102
		Galveston Well 1	Co.					
263	do.	City of	do,	1924	888	12		
		Galveston Well 6		ļ				
d/264	do.	City of	do.	1927	843	24	698	141
		Galveston Well 7						
265	do.	City of	do.	1914	855	24	721	32
		Galveston Well 2					762	83
266	inile east southeast	City of Galvaston Well 3	do.	1916	866	24	726	133
e/267		City of	do.	1916	873	24	712	145
<u>e</u> /201	southeast	Galveston Well 4	u	1310	070	ΣŦ	, 120	140
268	3 mile east southeast	City of Galveston Well 5	do.	1916	888	24	705	167
<u>o</u> /269	At Alto Loma	City of Galveston Woll 2	<del>ya</del> sag	1896	<b>7</b> 68	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 Unter level Romarks Pump and Use No. Haight of bench mark Below Date of kind and of ૧bo⊽e (+) amount water bench measure. ground mark | ment of power <u>c</u>/ (ft.) (ft.) a/ <u>b/</u> Casing: 550 feet of 81-inch with screens 234 Ind set at 444 to 480 and 501 to 540 feet. 235 T,E Casing: 547 feet of 8-inch with | Well 6. Ind screens set at 442 to 460 and 500 to 541 336 Casing: 1,136 feet of 6- feet. Well 5. None inch with screen set at 1,079 to 1,136 feet. Well flowed salt water and was 237 abandoned. Well 1. None Screen failed and well abandoned in 1919 or 1920. N 238 None Screen sanded up and well abandoned. Well 4. Flow estimated as 239 F Ind Well 3 or Inman well. 5 gallons a minute. Water level Remarks No. Height of Pump and Use bench mark Below Date of kind and ofabove (+) bench moasuraamount water ground mark ment of power <u>c</u>/ (ft.) a/ (ft.) b/ 261 J, W D,S 262 Water lovel was 10 feet below surface in T, E 1914.f/ Casing: 80 feet of 24-inch, and 12-inch to 840 feet. Screen set at 713 P 263 to 815 fect. T, E \_\_\_ 264 p T,E Water lovel was 282 feet below surface in 1927.f/ Casing: 151 feet of 24-inch and 12-inch to 843 feet. Screen set at 739 to 265 P 2 36.3 Sept.23, T,E Water lovel was 32 feet below 840 feet. 1932 surface in 1927.f/ Casing: 80 feet of 24inch 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 P Water level was 14 feet below sur- 1927. T, E face in 1916. f/ Twolve-inch screen set 267 T,E 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 Scot.23, Water level was 22 feet above 867 feet. None 1932 surface and aver go flow was 300 gallons a minute in 1898. <u>i</u>/ 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., Proliminary reports on the artesian wells of the Gulf Coastal slope: Geological Survey of Texas, 4th Annual report, pp. 97-105, 1893.

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

i/ See page

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	Re	ecords of wells in	Galveston Cou	nty	Continu	1ed		
No.	Distance from	41-1	Driller	1			Principa	al water ng bed
		renw	Driige	•	-			
1	Alta Loma			com-	3		Depth	Thica
					voll	of	to top	nose
				ted	(ft.)	well (in.)	of bod (ft.)	(ft.)
ु/270	At Alta Loma	City of	A-1.000	1396	868	7	740	128
		Galveston Well 4		1				
<u>o</u> /271	do₊	City of		1896	793	7	757	36
		Galveston Well 6						
<u>_</u> /272	do.	City of	~~	1896	809	7	756	40
		Galv ston Well 8		1				
	a mile mile	City of	<b></b>	1896	800	7	756	34
	south	Galveston Wall 14		<u> </u>				
0/274	do.	City of	Mile Sage	1896	838	7	755	40
		Galvaston Well 16						
ু/275	3 mile	City of		1896	790	7	755	35
	south	Galveston Well 18						
c/276	l를 miles	City of	+=	1896	733	7		
	south	Galviston Well 24		1				
277	2 miles	Friday				2		
1	southwest				}			
	$1\frac{1}{2}$ miles south	Mrs. H.	Frank Schultz	1925	38	3		
	southwest	Huntington						
	14 miles south	N. J. Mouna	Ed Metzler	1912	120	3		
— ,	southwest		120 110 01101	1	120			
	l mile south	N. S. Norris	Fred Conklin	1907	118	4		
	southwest	11. 51 1101115	FISG CONFIGN	1,00,	110	<b>T</b>	,	
	At Alta Loma	C. R. Platzer	C. R. Platzer	1910	34	2		
- 201	No Wind Doug	0. II. PIG 0261	o. M. Franzer	1310	04	ک		
c/282	do.	H. E. Stobart	H. E. Stobart	+	700	6		
0/202	ao.	n. b. blobaro	n. s. stovart		700			
0/203	2 miles east	James Balcher	Louis Cange	1894	720	41		
· ;		James parcher	rours oauge	1094	720	$4\frac{1}{4}$		
	southeast 2½ miles east	19 73 D-4	Т П	1,000	720			
		W. F. Reitmeyer	J. Tacquard	1888	728	4		
The second second	southeast			1.000	420			
285	do.	đo.	do.	1887	410	2		
- 656					700			
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		
	3¼ miles east	R. G. Roberts	do.	1930	260	4	235	***
	southeast							4
290	3½ miles east	Charles Shiro	Sept varie		720	3		***
	southeast							
d/291	do,	Hitchcock Ice &	Bob Conklin	1922	720	6	700	20
-		Fuel Co.						
292	4 miles east	Dora Pella	J. Anezan		97	3		
	southeast							
à/≥93	do.	L. Schanza	t-pp	1927	208	4		
_						_		
294	do.	H. L. Roberts	J. Tacquard	1911	710	4		<del></del>
+	~~•				, +4	•		
295	do.	Gulf Coast &	Fred Standard	1913	687	8	635	54
233	40.	Santa Fe Ry.	hiod Becitaria	1.0.10	001			0.

Penn Livingston and Samurl F. Turner

	-	<del></del>	FUIII .	TITATUR'S CO.	FT CTTP-	Samuri F. Turner
No.	Height of bench mark		r lavel	Pump and kind and	i	Romarks
		1	3	Ţ	ł	
	above (+)	1	moasure-	5	water	
	ground		ment	of power	<u>c</u> /	
	(ft.) a/	(ft.)		b/		
2 <b>7</b> 0	1 2	36.4	Sept.23, 1932	None	N	We ter level was $2\frac{1}{2}$ feet below ground in 1911 .h/
271	2	34.7	do.	None	N	Mater level was $l_2^1$ feat 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	Vater level was $l_{\overline{g}}^{1}$ 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 $1\frac{1}{8}$ foot above ground in 1911. h/
376	6₹	28.8	do.	None	N	Water level was $2\frac{1}{2}$ feet above ground and flowed about 70 gallons a minute in 1911.
277			<b></b>	J,H	D	<u>h/</u>
278				J,H	D,S	
379	-			J,H	D,S	
280	player spingl			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	#** <b></b>			J,G	D,S	Water level was 15 feet above ground in 1911. h/
285	to			J <b>,</b> H	S	Had a flow of 15 gallons a minute in 1911. h/
286	1 2		Jept.23, 1932	J	N	Had a flow of 100 gallons a minute in 1911. h/
287	2		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	
ଅବଥ			man ding	J,V	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 sot at 609 to 660 feet.

Records of wells in Golveston County--Continued Principal water. No. Driller Distance from Owner Date Depth Diambearing bed com-Denth Thick Alta Loma of eter ple-|well ofto top ness (ft.) |woll of bed (ft.) ted (ft.) (in.) J. L. Mayes 711 15 e/296 4 miles east Gulf Coast & 1891 726 southeast Santa Fo Ry. 297 Charles Schiro J. Tacquard 1911 do. 720+ 6 J. A. Bret 298 44 miles east 1932 Louis Cange 40 4 southeast R. T. Wheeler c/299 4 miles east 1889 720 3 700 20 do. southeast c/300 43 miles east Chris Jenson do. 1889 500 3 --\_\_\_ southeast 301 4 miles east J. A. Minot 763 2 1889 do. southeast 302 4 miles east Joe Tarraso 790 do. 1928 4 \_\_\_ southeast e/303 3 miles east Fred Lemke 1895 695 3 do. southeast o/304 3 miles H. Schoeffler 252 2 southeast 305 5 miles H. G. Tacquard Louis Cange 450+ 4 southwest 1925 1,100 e/306 7ੀ miles -- Coon Wall 1 The Texas Co. south 307 7 miles south Louis Cange Hughes Est. 3 1909 913 southeast 308 5 miles do. 100+ 3 southenst Humble Oil & 309 6号 miles -- Patterson 1932 2:0 6 southcast Refining Co. d/351 5 miles east -- Derringer Louis Cange 1929 533 6 \_\_ \_\_\_ southeast 30 2 d/352 6 miles east R. E. 1932 southeast Meisterhans 3 e/353 5 miles J. A. Perthus Louis Cange 1900 495 east 235 3 354 do. do. do. Principal Waterbearing bed Driller Date: Depth | Diam-No. Distance from Owner Texas City comof eter Depth Thickto top ness ple-well of (ft.) |well (ft.) of bed ted (ft.) (in.) Bob Conklin 1931 670 40 P. H. Naschke 710 d/855 35 miles west R. L. Whitburn 3 a/' 55 3 miles west J. Anezan 1930 117

southwest

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.

		والمراجع والم والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراج	Ponn	Livingstor	and s	Samuel F. Turner
No.	Height of	Wate	r lavol	Pump and	Use	Remarks
	bench mark	Contract the second			of	
	above (+)	1	measure-		water	
	ground	mark	ment	of power		
	(ft.) a/	(ft.)		b/		
<del>2</del> 96	The second secon			None	N	Other strata of water sand at 18 to 26,
						408 to 423 and 678 to 692 feet. Had a
Ì		į				flow of 66 gallons a minute in 1911. h/
297	Ē	12.5	Sept 22,	J,G,	D,S	
	æ.		1932	3		
298	<b></b>			J,H	D,S	
200				0,11	, -	
299		<del> </del> -		none	N	Water level was 30 to 35 feet above
ລູນູນ				110225	, <del>.</del> .	ground in 1889. Well now abandoned and
300	0	10 0	Sept.22,	None	N	Had a flow of 40 gallons a plugged.
000	V	10.0	1932	10119	1	minute in 1911. h/
301	3	5.9		J,H	D,S	Would flow 35 feet above ground when
OOL	J	0.3	uo.	0 2 1.1	,,,,	drilled. Had a flow of 60 gallons a
302	0	36.7	do.	J,G,	D,S	minute in 1911. h/
304	\ \ \	30.7	ao.	3,6,	ت ولا	minute in ivii. II
303		1-0-	7 -		D,S	Water level was 32 feet above ground and
505	1	9.5	do.	J, G,	ت ورلا	
		<del> </del>		3	<del></del>	rould flow 100 gallons a minute at ground
304				J,H	D,S	level in 1895. f/
		ļ				
305		+		F	S	Estimated flow 2 gallons a minute at
········		<u> </u>				ground lovel Oct. 7, 1932.
306				None	N	Oil test, see driller's log.
		<del> </del>	<u> </u>			
307	2	+		F	S	Estimated flow at 25 gallons a minute at
						ground level. Sept. 22, 1932.
308			<b></b>	J,	ន	
		-				
309				T,E	Ind	Witter used to drill oil test.
		ļ				
351				A,G,	S	Casing: 200 feet of 6-inch and 4-inch to
		<del> </del>	<u> </u>	22	<u> </u>	bottom. Set 40 feet of strainer at bot-
352				J,H	D,S	Water for analysis was taken from tom
					<u> </u>	new well at same depth in 1933.
353				J,G,	S	Foll originally flowed at 18 feet above
		<del> </del>		5	ļ	ground but now water level is about 2
354				J,W	D,S	feet below ground.
	İ	!	<u> </u>	i 1		
	1	•			-	
No.	Hoight of	Wate	r lovel	Pump and	Use	Remarks
	bonch mark	Below	'D' to of	kind and	of	
	above (+)		mossuro-		water	
	ground	mark	ment	of nower	<u>c/</u>	
	(ft.) a/	(ft.)		b/		
355		\\\		J,G,	D,S	
500		i	1	3	-,-	
356	2	94	Sept.21,	J, H	s	
000	•		1932	,	~	
	<u> </u>	<u>. L </u>	TYVW			

e/ No field tests made on weter 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 Taxas, 4th Annual report, pp. 97-105, 1893.

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

i∕ Ser page

Records of wells in Galveston County--Continued

	Re	ecords of wells in	n Galveston Cour	1ty	Continu			
					_		1 -	al water
No.	Distance from	Owner	Driller		Depth			ng bed
	Texas City			com-	$\circ \mathbf{f}$	eter	Depth	Thick-
				; - 1	well	$\circ \mathbf{f}$	to top	ness
				ted	(ft.)	1	of bed	(ft.)
						(in.)	(ft.)	
357	33 miles west	Texas City Natl.	Layne-Texas	1913	1,009	8	936	73
	southwest	Bank	To,	-				
e/358	1 mile west	Vacuum Oil Co.	J. A. Walling	1920	993	10	704	31
_	southwest						900	93
e/3n9	1 mile	Sinclair	***************************************	1908	970	6		
_	southwest	Refining Well 1						
d/300	de.	Sinclair	w	1919	1,030	10		<del>-</del>
		Refining Well 3						
e/351	do.	Sinclair		1919	1,030	8		
	•	Refining Well 2			_,	_		
e/362	do.	Sinclair		1907				
27 002	20,	Acfining Well 4		1001				
363	4 miles	Texas Highway	Louis Cange	1916	185			
000	southwest	Dept.	Louis oanso	1310	100			
364	وجروب ووالمراج والمتارين والمتاريخ المتناف المتناف المتناف والمتاريخ والمتاريخ والمتاريخ والمتاريخ والمتاريخ	R. J. Powers	Whittington		50-	+ 6		
00±	40,	If. O. LOWETZ	hittoring con		50			
		<u> </u>		<u> </u>			Desirencia	1
<b>7.</b>	0.1			_ ,	5	<b></b>	1	al water
No.	Galveston	Cwner	Driller		Depth		The state of the s	ng bod
				com-		eter	Depth	Thick-
				1 - 1	well	of	to top	ness
				ted	(ft.)		of bed	(ft.)
						(in.)	(ft.)	
<u>e</u> /401		Galveston Wharf	Layne-Texas	1928	1,498		126	147
1	of Causeway	Co.	Co.				332	59
							734	32
e/402		City of		01d	900	<u>+</u>	1,028	178
1	or Ave. G.	Galveston				Í	1,335	44
	between 18th					İ	1,423	68
	and 45th Sts.					<b>!</b> :		
a/403	At 17th St.	do.		iOld	1,346		840	
	and Avo. G						1,346	***
0/404	Between 30 &	do.	Galveston Ar-	1893	3,070	26		
	31st Sts. & G	1	tesian Vell Co	, ,				
	& H Ave							
£051	41st St. & Ave.	Galveston Rice			1,300	<del></del>	!	
	G	Milling Co.			1,000	<del>'</del> -		
	·	Triple X Brewing	Layne-Texas	1911	1,335	10	759	49
@140h1		1 ++ + h + c + + + + + + + + + + + + + +	_	1	T) 000	10	1	
<u>e</u> / 406	Í	Co	~~					
<u>@</u> / <del>4</del> 06	Ave. F	Co.	Co.				1,124	19
<u>e</u> / 406	Í	Co.	Go.				1,124	143
<u>@</u> / <del>4</del> .06	Í	Co.	Go.				1	
<u>e</u> y 406	Í	Co.	Co.				1	

<sup>2/</sup> 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; V, 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 Water level Pump and Use Remarks bench mark Below Date of kind and οf above (+) bench measureamount water ground ment mark of power c/ (ft.) a/ (ft.) <u>h</u>/ 357 Flow estimated at 5 gallons an hour, Oct. \_\_ Casing: 98 feet of 10-inch, 891 feet of F 358 Ind --6-inch and 43 feet of 4-inch. 359 Ind F + 360 F Ind 361 F Ind 362 None Well failed and abandoned. \_\_\_ Ŧ D,S Temperature 75° F. 363 1 364 J, H N No. Height of Water level Pump and Use Remarks bench mark Below Date of kind and ofabove (+) bench measureamount water ground mark ment of power c/ (ft.) a(ft.) ъ/ 401 The water from each stratum was tested None and was salty. The best water was found at 332 to 402 feet. Well abandoned and N Group of 12 wells from 810 to 402 None 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. N 404 None Test well for better supply but drillers record states that water was saltier each succeeding stratum. Each water stratum 405 Ind had a flow. Well abandoned. Ŧ Well has small flow of gas. Well had a flow of 300 gallons a minute 406 F Ind 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 mede 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 mage

Records of wells in Galveston County -- Continued Principal water-Driller Date Depth Diambearing bed No. Galveston Owner Depth eter Thickcom- of ple-well  $\circ f$ to top ness (ft.) |well of bed (ft.) ted (ft.) (in.) 797 42 e/407 Santa Fe Shops Gulf, Colorado & 755 1887 12 Santa Fe Ry. e/408 28th St. & Bagging Factory 01d 810 \_\_\_ Ave. F e/409 26th St. & Brush Electric Old 813 Ave. E Light & Power Co. Fraser Ice & 57 e/410 22nd St. & Lavne-Texas 1914 1,346 6 825 Ave. A Cold Storage Co. Co. 1,254 83 1927 500+ 411 da. do. +008 38 d/412 20th St. & Galveston Ice & Lavne-Texas 1912 1,345 10 818 Ave. A Cold Storage Co. Co. 1,217 125 e/413 Texas Ice & 01a 856 6 do. do. Cold Storage Co. e/414 18th St. & National Cotton 1,328 01d Ave. A Cil Co. e/415 20th St & Galveston City Old 330 Ave. I R. R. Co. e/416 Port Bolivar Gulf Colorado & Giles Williams 1913 1,088 10 972 35 Santa Fe Ry. G. Sealy e/417 Galveston, Layne-Texas 1929 1,000 10 589 53 ll miles Co. southwest

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, steem; 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.

 $<sup>\</sup>underline{d}$ / See analysis table for analysis of water from this well.

Penn Livingston and Samuel F. Turner

No.	Height of		r level	Pump and	Usc	Remarks
	bench mark	;	i	kind and	r .	
	above (+)	,	measure-	amount	water	
	ground		ment	of power	<u>c/</u>	
	(ft.) <u>a</u> /	(ft.)		<u>b/</u>		
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
408						at 750 foot. Had a flow of 104 gallons Temperature 83° F. a minute in 1911.h/
, 00		<u> </u>		44	Í	Record from Singley. g/
409						Record from Singley. g/
		1			} 2	<u> </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, f/present flow about 25 gallons a minute.f/
411					Ind	Two wells pumped for cooling water. Sample was composite from both wells.
-12				F	Ind	10-inch casin to bottom. Screens set at 830 to 893 and 1,235 to 1,338 feet. Original flow 700 gallons a minute f/, present flow about 500 gallons a minute.
413	was glad					Three similar wells, record from Singley.
414						Record from Singley. g/
415						Two similar wells. Water was said to be the least mineralized in city. Record
416				and the	Ind	Casing: 10-inch at from Singley g/?  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	Vio et ald to	+		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 7950 F. Flowing with gas.

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

"The main artesian system at this place, which sumplies 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 balow 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."

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, Toxas, to N. H. Darton of the U. S. Geological Survey, deted April 17, 1898.

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.)

<u> </u>			Depth			
Well	Owner	Date of	of	Hardness	Chloride	Sulphate
No.	3.1	collection	well	as CaCO <sub>3</sub>	(C1)	(so <sub>4</sub> )
1000			(ft.)	<u>a</u> / 3		<u>b</u> /
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	2101 4 20 4 2002	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
			12	550	240	30
34	G. V. Tripplet	G 0 1021	75	450	330	5
35	J. O. Derrick	Sept. 8, 1931	25	240	100	5
61	R. O. Albright	Aug. 4, 1931				40
62	W. R. McClendon		170	150	340	
63	G. C. Perkins		540 <u>±</u>	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	Algoa School		444	60	160	
101	H. ". 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. D. Newell	Oct. 20, 1932	240	90	140	3
106	Hans Gouldman		1,100+	140	1,000	2
107	Foster Hoskins	•• •••	215	150	<b>3</b> 70	<u>~</u>
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. Falmer		65	500	450	5 <u>0</u>
		do.				
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	<del></del>	600 <u>+</u>	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, H, & H. R. R.	phy ma	914	140	800	5
206	A. J. Biron	Apr. 15, 1931	926	80	400	1
221	J. Totzel			950	800	40
222	S, M. C'Callaghan		30	370	270	35
223	Ctis Walker		246	75	170	5
224	Texas-Louisiana Power Co		1,038	110	900	1
	do.		783	35	230	
	~~•	<del></del>	547	45	260	<u>_</u>
227	Texas City Terminal Ru			エリ	2011	1
227 235	Texas City Terminal Ry.				340	
227 235 239	do.		855	45	340	1
227 235					340 110 400	

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.

-22-Records of field tests of samples from wells in Galveston County--Continued

<del></del>		T		Depth			
Well	Owner	Date o	of	of	Hardness	Chloride	Sulphate
No.		collect	tion	well	as CaCO3	(C1)	(SO <sub>4</sub> )
				(ft.)	<u>a</u> / 5	-	b.7
265	City of Galveston No. 2	Sept.23,	1932	855	55	310	1
266	City of Galveston No. 3		and a second second second second second second second second second second second second second second second	866	100	450	1
268	City of Galveston No. 5			888	75	400	1
277	Friday				380	100	10
278	Mrs. H. Hu.tington N. J. Mouna N. S. Morris C. R. Platzer W. F. Reitmeyer			38	290	40	1
279	N. J. Mouna			120	300	140	10
280	N. S. Norris			118	300	140	5
281	C. R. Platzer			34	390	70	5
284	W. F. Reitmeyer	and the		728	35	120	2
285	d∩.			410	80	210	5
287	J. Tacquard	Sept.22,	1932	720	55	230	1
288	H. L. Roberts R. G. Roberts	do.		720	130	230	2
289	R, G. Roberts	do,		260	150	<b>3</b> 60	33
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	<b>30</b> -
294	H. L. Roberts			710	35	100	10
295	Gulf Coast & Santa Fe R	у		687	40	130	5
297	Charles Schiro	Sept.22,	1932	720±	45	100	5
298	J. A. Bret		mangan ny divindra	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	3 <b>5</b>
309	Humble Oil & Rfg. Co.			240	140	400	5
351	Derringer			533	20	140	5
352	R. E. Meisterhans			30	550	500	50
354	J. A. Perthus			235	170	340	45
355	P. H. Nas <b>c</b> hke			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 <b>±</b>	3,000	2,000	16,000
405	Galveston Rice Milling	Co		1,300+	500	5,000	1
411	Fraser Ice & Cold Stora	ge		500+	250	1,500	5
	Co.			800 <u>+</u>		<del>-</del>	
412	Galveston Ice & Cold	***		1,345	500	4,000	1
	Storage Co.			-		•	

Storage Co.

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.

\$-23-\$ Analyses of water from wells in Galveston County, Texas

		Da	ate o	of i	Depth	T	otal	:	1	Cal-	Magne-
Well	Cwner	C	olle	e-	of	dis	solved	Silica	Iron	cium	sium
No.			tion		well		olids	(SiO <sub>2</sub> )	(Fe)	(Ca)	(Mg)
					(ft.)		calc.)	. 2.			
22	Ed. Lemoine	Aug.	21,	1933		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			1928	200	2/	913	21	3/3	33	15
103	Tony Emite	Aug.	1.	1933					0.51		
108	Dickinson Ice Co.		29.	1935	576	2/	447	<del></del>	0.04	5	1.5
111-a	The second secon	A12 0	16	1926		2/1	,920	<del>-</del> -	3/9.2	15	7
111-b	do.	.Tu ] 17	18	1933	215	-2/ -	832	19	0.34	20	12
184-	Southern Pacific			1931	600	2/	703	15	3/3.9	8.9	2.1
185		pepe	. 4 ( )	1001	000	£1.	100	10	0,0.0	0.0	<b>₽</b> • ∓
	Ry.	77	10	1933	30	2/	961		2.7	66	45
222	S. M. O'Callaghan	July		1900							
223	Otis Valker	<del></del>	do.	1010	246	$\frac{2}{6\sqrt{2}}$	866	10	0.36	14	11
224-a	Texas-Louisiana	Jan.	10,	1910	1,038	7/1	,496	16		20	11
	Power Co.			1076			4				
224-b	do.	May			1,038	1	,608	36	0.17	26	11
224-c	the state of the same of the state of the st				1,038				***		
226	do,	May	9,	1910	812		682	19	0-0 mm	7.8	2.5
		<u> </u>			*						
227-a	do.			1933			822	21	0.20	8.5	3
4/227-b	do.			1935	758	2/	821		0.18	9.1	3,4
230	Pan Ameri <b>c</b> an	July	19,	1933	611		811	22	0.82	7.7	3,1
	Refining Corp.										
239	Texas City Termina	1	do.		855		990	20	]	9.2	3.4
	Ry.										
264 <b>-</b> a		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		1933	120	2/	765		1.9	42	30
281	C. R. Platzer		do.		34	2/	464		0.11	115	32
289	R. G. Roberts	<del></del>	do.		260	2/1	,095		2.9	23	18
	Hitchcock Ice &		do.		720	~/	577	23	0.47	8.7	3,5
	Fuel Co.				, 20		<b>V</b> / /	~~	0,4.	0,1	0,0
291-b	do.	Mar.	29.	1935	720		<del>-</del> -	* <b>-</b>			
293	L. Schanza			1930	208			24	3/0.7	22	5.8
298	J. A. Brot	Aug.	1,	1933	40			· · · · · · · · · · · · · · · · · · ·	2.5		
351	Derringer	July		1933	533	2/	569		3.3	7.1	
352	R. E. Meisterhans				30	<i>£/</i>	<del></del>				2.8
355-a	the state of the s	Aug.	1,			37	600		3.3		
355 <b>-</b> b	P. H. Maschke	July		1933	710	2/	690	<del></del>	1.5	6.8	2.6
	do.			1935	710						
356 700	R. L. Whitburn			1933	117	2/_	846		0,89	49	18
366	Sinclair Refinory No. 3	July	19,	1933	1,030	1	,875	30	0.38	28	12
412	Galveston Ice &	May	10.	1932	1,345	5	,840	35	2.2	90	54
	Cold Storage Co.	•	•		,	•			<b></b>	- •	<b>-</b> 1
416	Gulf Colorado &	Jan.	1.	1932	1,088	2/1	,800	:14	3/4.8	16	6.3
-	Santa Fe. R. R.		-,		,	<i>=</i> 2 .c	,	44	±4 ±•0	10	0,0
417	Geo. Sealy	J11777	2	1927	1,000	7	,705			54	31
	~~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			1. U.E. (	L - \ /\ /(/	- 1	. / 1 / / 3	100 mile		2144	-7.7

as sodium.
2/ Sum of constituents reported.

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

<del></del>	announced solution to the solution of		Bicar-	<del></del>	İ	<u> </u>	Total	1
Well	Sodium	Potas-		Sulphate	Chlo-	Nitrate	hardness	Analyst
No.	(Na)	sium			ride	(NO <sub>3</sub> )	as CaCO <sub>3</sub>	I I I I I I I I I I I I I I I I I I I
NO.	( Na. )	( <u>r</u> )	(HCO <sub>3</sub> )	(SO <sub>4</sub> )	(C1)			
22	3	2	451	12	105	30	484	Margaret D. Foste
23-a		and a second distribution of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco	268	***	72		38	Felix Paquin
23-b	14	1	520	7.2	97	0.10	263	Margaret D. Foste
27		.]	532	1.5	40	0,39	403	Felix Paquin
62	354	8,2	602	60	271	3.7	157	Margaret D. Foste
101	31	8	806	2.7	123		144	Felix Paquin
103			510	36	325	2.3	345	Margaret D. Foste
108	18		370	1.7	75	0,64	19	Do.
111-a			334	1.7	985	~-	66	Felix Paquin
111-b		3,8	600	0.8	175	0,30	99	Margaret D. Foste
184-			443	0.0	182	1,2	31	C. S. Wilson
185	همو هيي		440		102	1 . s	9.7	
222	25	4	603	33	265	0.88	350	Margaret D. Foste
223	33	2	688	3,3	166	0,61	80	Do.
224-a			261		767		95	Houston
								Laboratories
224-b	578	5,6	346	1.4	7 <b>7</b> 5	0	110	Margaret D. Foste
224-c			355	1	758		114	Do.
226	26	1	379	6.5	198		30	Houston
	•-			. •				Laboratories
227-a	311	3,9	478	1,1	230	0.20	34	Margaret D. Foste
/ 227-b			475	1.6	248	0.40	37	Do.
230	305	3.8	578	1.6	162	0.12	32	Do.
200	9019	0.0	510	1.0	102	OFTE	52	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	35	6	333	2.6	422	0.38	98	Do.
279	22	9	626	12	140	3.8	228	Do.
281		2	438	4.9	70	3.8	419	Do.
289	39		598	4.5	355	0.20	131	Do.
291-a		2.2	399	1,3	124	0.05	36	Do.
291-b	)		399	1	126		28	Do .
293		<del></del>	304		302		79	Felix Paquin
298			481	22	215	1,2	405	Margaret D. Foste
351	22		431	1,5	118		29	
352		·				0.05		Do.
355 <b>-</b> a	0.0			5/160	925	0.75	758	Do.
		7	447	1.2	189	0,15	28	Do.
355 <b>-</b> b			450	1	186		21	Do.
356	27		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	67	6	446	0.9	830		66	Houston
417	58	Ω	700	ne ne	040		5.25	Laboratories
		o inum oxi	728	25	648		262	Felix Paquin

<sup>3/</sup>Iron and aluminum oxides.
4/Drilled to take place of well No. 227-a.
5/Approximate.

				kness	Depth				ness	Depth (feet)
				feet)	(feet)				Lee u )	(1660)
Drill	er's lo	g of	wel	1 3	1	Driller's log o	f wel	11 26-	-Conti	nued
Mrs. Annette					, and a second	Good coarse sand	_	-	40	975
Clay -			_	128	128	Sand and er vel	-	_	45	1020
Sand -			-	6	134			·		
Clay -	_	_	_	23	157	Dri ler's	log	of wel	1 85	
pand -	_	_	_	12	169	Algoa Townsite Com				
Clay and shell	ls		_	14	183	Clay and soil -	_		36	36
Gumbo and clay		_	_	176	359	! Sand	-	-	14	51
Sand -	<b>-</b>	_		11	370	! Clay	-	-	45	95
Gumbo -	-	_	_	31	401	Sand		-	5	Joo
Clay and shell	ls			12	413	Red clay	_	_	92	192
Hard layer			***	2	ا 15	Gumbo	-		6	198
Gumbo -	<del></del>		-	26	41	Rock	-	_	11	500
Sand -	-			41	482	Sand			12	221
Clay -	_		_	6	488	Rock			6	227
Send -	-	_	_	9	497	Hard and soft clay	-	-	49	276
Clay -	_			9	506	Clay and gumbo -	-	•••	147	423
Sand -	-	***	-	149	655	Sand rock	-	-	17	4411
Clay -	-		~	13	668	Packed sand		-	9	449
vend -	-			23	691	Hard sand rock -	-	-	4	453
Clay -	-			14	7'15	Sand	-	-	45	498
Send -			-	50	755	, Gumbo	-	-	51	549
Clay -		-	_	8	763	Sand rock	-	b=0	6	555
						Gumbo		-	62	617
Drill	er's lo	g of	el wel	1 26	į	Sand	_		60	677
Galveston, Ho	uston e	ind E	Ierri	sburg	Railway,	Rock	-	-	2	679
Galveston, Ho	uston s	ind F	Iarri	sburg	Railway,	Rock	-	-	14	693
'	uston e -	ind F	lərri -	sburg 8	; 8	i	- - -	-	14 43	693 736
owner.	uston e - -	ind F - -	Jarri - -	sburg 8 92	8	Sand   Gravel   Gumbo	- - -	- - -	14 43 20	693 736 756
owner. Soil -	uston s	ind F	lerri - -	sburg 8 92 10	8 1.10 110	Sand Gravel Gumbo Clay and boulders	-	- - - -	14 43 20 5	693 736 756 761
owner. soil - Yellow clay	uston s	ind F - - -	larri - - - -	.sburg 8 92 10 4	8 100 110 114	Gravel Gumbo Clay and boulders	-	-	14 43 20 5 17	693 736 756 761 778
owner. Soil - Yellow clay Elue shale	uston s	ind F	larri - - - -	sburg 8 92 10 4 46	100 110 114 160	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock	-	-	14 43 20 5 17 5	693 736 756 761 778 783
owner. soil - Yellow clay Elue shale Fine sand	uston s	ind F	larri - - - - -	8 92 10 4 46 5	8 1.00 110 114 160 165	Gravel Gumbo Clay and boulders Gumbo Sand rock Chale and gumbo		-	14 43 20 5 17 5	693 736 756 761 778 783 792
owner. Soil - Yellow clay Blue shale Fine sand Blue clay	-	ind F	larri - - - - -	8 92 10 4 46 5 5	8 100 110 114 160 165 170	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock Shale and gumbo Sand and rock -	-	-	14 43 20 5 17 5 9	693 736 756 761 778 783 792 796
owner. Soil - Yellow clay Blue shale Fine sand Blue clay Sand -	-	nnd H	lerri - - - - - -	8 92 10 4 46 5 5 10	8 100 110 114 160 165 170 180	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock Shale and gumbo Sand and rock - Gumbo	-	-	14 43 20 5 17 5 9 4	693 736 756 761 778 783 792 796 873
owner.  Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and gray	-	nnd H		8 92 10 4 46 5 5 10 22	8 100 110 114 160 165 170 180 202	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock Shale and gumbo Sand and rock - Gumbo Gravel	-		14 43 20 5 17 5 9 4 77 8	693 736 756 761 778 783 792 796 873 881
owner.  Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand -	- - - - - el	and F		8 92 10 4 46 5 10 22 8	8 100 110 114 160 165 170 180 202 210	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock Shale and gumbo Sand and rock - Gumbo Gravel Gumbo Gumbo			14 43 20 5 17 5 9 4 77 8	693 736 756 761 778 783 792 796 873 881 883
soil - Yellow clay Blue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay and grav	- - - - - el	and F		8 92 10 4 46 5 5 10 22 8 15	8 100 110 114 160 165 170 180 202 210 225	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock Shale and gumbo Sand and rock - Gumbo Gumbo Gumbo Gumbo Sand rock - Sand rock Sand rock			14 43 20 5 17 5 9 4 77 8 2 34	693 736 756 761 778 783 792 796 873 881 883 917
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay and grav Blue clay -	- - - - - el	and F		8 92 10 4 46 5 5 10 22 8 15 37	8 100 110 114 160 165 170 180 202 210 225 262	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock		-	14 43 20 5 17 5 9 4 77 8 2 34 10	693 736 756 761 778 783 792 796 873 881 883 917 927
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay and grav Blue clay - Fine sand -	- - - - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23	8 100 110 114 160 165 170 180 202 210 225 262 235	Sand Gravel			14 43 20 5 17 5 9 4 77 8 2 34 10 56	693 736 756 761 778 783 792 796 873 881 883 917 927 983
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan + Clay - Sand - Sand - Clay and grav Blue clay - Fine sand - Blue clay -	- - - - el - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105	8 100 110 114 160 165 170 180 202 210 225 262 285 590	Sand Gravel			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13	693 736 756 761 778 783 792 796 873 881 883 917 927 983 996
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay and grav Blue clay - Fine sand - Blue clay - Blue clay - Blue sandy cl	- - - - el - - el	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60	8 100 110 114 160 165 170 180 202 210 225 262 255 590 450	Sand Gravel			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8	693 736 756 761 778 783 792 796 873 881 883 917 927 983 996 1004
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay and grav Blue clay - Fine sand - Blue clay - Blue clay - Blue andy cl	- - - - el - - el	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60 20	8 100 110 114 160 165 170 180 202 210 225 262 285 590 450 470	Sand Gravel Gumbo Clay and boulders Gumbo Sand rock			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8 6	693 736 756 761 778 783 792 796 873 881 883 917 927 983 996 1014 1010
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay and grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue clay - Blue clay - Blue clay -	- - - - el - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20	8 100 110 114 160 165 170 180 202 210 225 262 285 590 450 470 500	Sand Gravel Gumbo Sand rock Sand and rock - Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8 6	693 736 756 761 778 783 792 796 873 881 883 917 983 996 1014 1010 1029
Soil - Yellow clay Blue shale Fine sand Blue clay Sand - Clay and grav Hard pen - Clay - Sand - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand - Blue sand -	- - - - el - - el	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60 20 50 8	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 5 10 508	Sand Gravel			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8 6 19 10	693 736 756 761 778 783 792 796 873 881 883 917 927 983 996 1014 1029 1029 1039
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Sand - Clay and grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand clay Blue sand - Hard clay -	- - - - el - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20 50 8 15	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 500 508 523	Sand Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8 6 19 10 33	693 736 756 761 778 783 792 796 873 881 823 917 927 983 996 1014 1029 1029 1039
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand cl Sand - Blue clay - Rock -	- - - - el - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20 15 1	8 1·00 110 114 160 165 170 180 202 210 225 262 255 390 450 470 508 523 524	Sand Gravel Gumbo Sand rock Sand rock Sand and rock - Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo			14 43 20 5 17 5 9 4 77 8 2 4 10 56 13 8 6 19 10 33 3	693 736 756 761 778 783 792 796 873 881 883 917 927 985 996 1014 1029 1039 1072 1075
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue sand cl Sand - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay -	- - - - el - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20 15 111	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 508 523 524 645	Sand Gravel Gumbo Sand rock Sand and rock - Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo			14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8 6 19 10 33 3 4	693 736 756 761 778 783 792 796 873 881 883 917 983 996 1014 1010 1029 1072 1075 1079
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand - Clay - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sand - Clay - Sandy clay -	- - - - el - - el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20 12 45	8 100 110 114 160 165 170 180 202 210 225 262 285 590 450 470 500 508 523 524 645 690	Sand Gravel Gumbo Sand rock Sand and rock - Sand and rock - Gumbo			14 43 20 5 17 5 9 4 77 8 2 34 10 56 3 8 6 19 10 3 3 4 6	693 736 756 761 778 783 792 796 873 881 883 917 927 983 996 1014 1029 1072 1075 1079 1085
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand - Clay - Clay - Sand - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay -	- - - - el - - el	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60 20 12 121 45 3	8 100 110 114 160 165 170 180 202 210 225 262 285 590 450 470 508 523 524 645 690 693	Sand Gravel Gumbo Sand rock Sand and rock - Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo Gumbo			14 43 20 5 17 5 9 4 77 8 2 34 10 5 13 3 4 6 2 2 2 2 3 4 6 2 2 3 3 4 6 2 3 3 4 6 2 3 3 4 6 2 3 3 4 6 2 3 3 4 6 6 2 3 3 4 6 2 3 3 3 4 6 2 3 3 3 4 6 2 3 3 3 4 6 2 3 3 3 3 3 3 3 3 3 4 3 3 3 3 3 3 3 3 3	693 736 756 761 778 783 792 796 873 881 883 917 983 996 1014 1029 1075 1075 1075 1075 1077
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand - Blue clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay -	el	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60 20 12 45 3 7	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 508 523 524 645 690 693 700	Sand Gravel Gumbo Sand rock Sand and rock Gumbo Gumbo	- - - - - - - - - - - - - - - - - - -		14 43 20 5 17 5 9 4 7 8 2 10 5 13 3 4 6 2 2 1 2 1 3 3 4 6 2 2 1 2 3 3 4 6 2 2 2 2 3 3 4 6 2 3 3 4 6 2 3 3 4 6 2 2 3 3 4 6 2 3 3 4 6 2 2 3 3 4 6 2 2 3 3 4 3 3 3 4 3 3 3 3 4 3 3 3 3 3 3	693 736 756 761 778 783 792 796 873 881 883 917 983 996 1014 1010 1029 1079 1079 1079 1128
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay - Sand - Clay end grav Blue clay - Fine sand - Blue clay - Blue clay - Blue clay - Blue sand - Clay - Clay - Sand - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay -	el	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60 20 8 15 1 121 45 3 7 50	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 508 523 524 645 690 693 700 730	Sand Gravel Gumbo Sand rock Sand and rock - Gumbo Gumbo Gumbo Gumbo	- - - - - - - - - - - - - - - - - - -		14 43 20 5 17 5 9 4 77 8 2 34 10 56 13 8 6 19 10 33 3 4 6 2 2 10	693 736 756 761 778 783 792 796 873 881 823 917 927 983 996 1014 1029 1039 1072 1075 1079 1128 1138
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay and grav Blue clay - Fine sand - Blue clay - Blue clay - Blue sand - Blue clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Cl	el	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20 8 15 121 45 3 7 50 30	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 508 523 524 645 690 693 700 730 760	Sand Gravel Gumbo	- - - - - - - - - - - - - - - - - - -		14 43 20 5 17 5 9 4 77 8 2 4 10 5 10 3 3 3 4 6 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 2 10	693 736 756 761 778 783 792 796 873 881 883 917 927 985 996 1014 1029 1072 1075 1079 1128 1138 1138
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay and grav Blue clay - Fine sand - Blue clay - Blue sand cl Sand Blue clay - Blue sand - Clay - Clay - Blue sand - Clay - Blue sand - Blue clay - Blue sand - Blue clay - Blue sand - Clay - Clay - Sandy clay - Clay - Sandy clay - Blue clay - Blue clay - Clay - Clay - Sandy clay - Blue clay - Blue clay -	el el ay	ind F		8 92 10 4 46 5 10 22 8 15 37 23 105 60 20 8 15 121 45 3 7 50 40	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 508 523 524 645 690 693 700 730 760 800	Sand Gravel Gumbo			14 43 20 5 17 5 9 4 77 8 24 10 6 10 10 21 21 42 42 42 42 42 42 42 42 42 42 42 42 42	693 736 756 761 778 783 792 796 873 881 883 917 983 996 1014 1029 1072 1075 1075 1128 1138 1138 1180 1217
Soil - Yellow clay Elue shale Fine sand Blue clay Sand - Clay and grav Hard pan - Clay and grav Blue clay - Fine sand - Blue clay - Blue clay - Blue sand cl Sand Blue clay - Blue clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - Clay - C	el el ay nd	ind F		8 92 10 4 46 5 5 10 22 8 15 37 23 105 60 20 8 15 121 45 3 7 50 30	8 100 110 114 160 165 170 180 202 210 225 262 285 390 450 470 508 523 524 645 690 693 700 730 760	Sand Gravel Gumbo Sand rock Sand and rock Gumbo Gumbo Gumbo	- - -		14 43 20 5 17 5 9 4 77 8 2 4 10 5 10 3 3 3 4 6 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 4 2 10 2 10	693 736 756 761 778 783 792 796 873 881 883 917 927 985 996 1014 1029 1072 1075 1079 1128 1138 1138

	Thi	ckness	Depth	Thickness Dept
		(feet)	(feet)	(feet) (fee
Driller's log o	f well 85	Conti	nued	Driller's log of well 268Continued
Gumbo		30	1 1256	Sand 25 12
Rock		5	1261	Clay 17   14
Sand		37	1298	Sand 6 15
Gumbo		4	1302	Clay 278 42
Herd sand		14	1316	Sand 17 44
Very hard sand -		3	1319	Clay 138   58
Hard aand		14	1333	White sand 27 61
Soft gumbo		3	1376	Clay 94 70
Soft sand		19	1355	Sand 168 87
Hard send		4	1359	Clay 16   88
Rock		3	1362	
	,			Driller's log of well 306
<u>Driller's</u>				The Texas Company's Coon Number 1.
Dickinson Ice Comp	any, owner			Yellow sand 20   2
Clay		10	10	Gray sand 47 6
Sand		ഉവ	30	Soft blue gumbo 31 9
Clay		50	80	Gray sand 24 12
Sand		90	170	Blue gumbo 41 16
Clay		40	210	Sand 20 18
chale		246	456	Blue gumbo 34 21
Fine sand		41	497	send 22 25
Sand		2')	517	Blue gumbo 64 30
Gu 100		14	531	Sand 21 32
Sand		4l	572	Blue gumbo 160 48
Gumbo		4	576	Blue sand 10 49
Dřiller's	log of we	17 994		Blue gumbo 152 64 Gray sand 20 66
Texas-Louisiana Po			er	Blue gumbo 162 82
Soil and clay -		y, 6	1 6	Gray sand 268 109
Send		26	32	Blue gumbo 4 110
Clay		20	52	Date Comment
Sand		~ 9	61	Eriller's log of well 406
Shele	-	31	92	Triple X Brewing Company, cwner.
Send	may	24	116	Sand and silt 37   3
3oft ≈hale		45	161	Clay 33 7
Hard shale	w. 4m	41.	202	Send 10 8
Shale		332	534	Clay and shale 110   19
Send		36	570	Rock 1 19
Gumbo		69	639	Clay and shale 86 27
Clay		32	671	Fine sand 39 31
Send		38	709	Clay and shale 82 39
Clay		81	790	Send 49 44
Sand	<u></u>	40	83 )	Clay 10 45
Clay		18	848	sand 27 48
oand		190	1038	Clay 8 49
Clay		1	1939	sand 10 50
		- market and another mark		oand and shale 51 55
Driller's	log of we	11 268		Sand rock 9 56
City of Galveston				Clay, shell and shale - 130 69
Soil and clay -		16	16	Sand 6 69
Sand		12	28	Gumbo 61 75
Clay		3	31	Sand 49 80
Sand		12	43	Gumbo 25 83
Sandy clay		<b>39</b>	82	oand 7 84
Clay		201	102	(Continued on next page)

-27Table of Drillers' Logs, Galveston County--Continued

		-		Tì	ickness (feet)	Depth (feet)	Thickness Dept (feet) (fee
Dri]	ler's	s log	of	well 4	06Cont	inued	Driller's log of well 406Continue
Gumbo		_	-	4-	135	975	Hard rock 10   11
Sand	-		-		10	985	Shell and sand rock - 19 11
kumbo	-		-	_	42	1027	Gumbo 19   11
and	_	_	_		7	1034	Sand rock 10 11
umbo		_	_	-	40	1074	Gumbo 12 11
lock	-		-	-	1	1075	Hard rock 10 11
umbo	-	_	_	_	12	1.187	Sand rock 121   13
and		-	-		16	1103	Sand and gravel 12   13
umbo		_			11	1114	Gumbo 8 13

