

NORTHERN PART OF JIM HOGG COUNTY, TEXAS

Introduction

By

Walter N. White  
Senior Hydraulic Engineer

This release contains records of wells in the northern part of Jim Hogg County, and is illustrated by a map on which the wells listed are shown, each well being given a number on the map corresponding to the number assigned to it in the well tables. The records were obtained during the summer of 1934 by James C. Cumley, under an allocation of funds by the Federal Emergency Administration of Public Works, as a part of a state-wide program of groundwater investigations by the Texas Board of Water Engineers in cooperation with the United States Department of the Interior, Geological Survey.

Altogether 92 wells fairly well distributed through the northern part of the county are described in the tables. The records include the following: name of well owner and driller; size and depth of well; position and thickness of chief water-bearing beds in a few of the wells; character of pumping equipment; depth to water in a part of the wells; use made of the water; the mineral character of the water as shown by field tests for hardness, chloride and bicarbonate; and more complete laboratory analyses of water from selected wells.

Most of the wells recorded in the county are used for domestic purposes or stock, or both. A few wells at Hebronville are used for industrial purposes and railroad supply.

The records given in this release serve as a guide to land owners and others who need information regarding wells in different parts of the area, and the quantity and quality of water yielded by the wells.

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## Records of wells in northern part of Jim Hogg County, Texas

No.	Distance from Hebbronville	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water-bearing bed	
							Depth to top of bed (ft.)	Thickness of bed (ft.)
1	14 miles west southwest	Reuben Holhein	-	-	300	-	-	-
2	12 miles west southwest	A. Martinez	-	Old	200	48	-	-
3	12 $\frac{1}{2}$ miles southwest	do.	-- Walker	-	233	5-3/16	-	-
4	do.	do.	-- David	-	300	5-3/16	300	-
51	7 miles southwest	D. C. Strohman	-- Powell	1908	165	6	-	-
52	6 miles south southwest	George Edds	-	-	-	-	-	-
53	4 3/4 miles southwest	Tom East	E. R. David	1928	237	5-3/16	200	20
e/54	4 $\frac{1}{4}$ miles southwest	do.	do.	Old	90	6-5/8	-	-
55	do.	do.	do.	Old	125	4-1/4	121	4+
56	6 $\frac{1}{2}$ miles southwest	George Edds	P. W. Wilson	1931	3,360	10	954	129
101	In Hebbronville.	Hebbronville Ice Co.	E. R. David	-	345	6-5/8	340	5
102	do.	Manhattan Cafe	-	Old	50	60	-	-
103	do.	-	-	Old	30	60	-	-
104	do.	Randado Gin Co.	E. R. & I. I. David	-	212	5-3/16	188	24
e/105	do.	Edds Lumber Co.	-- David	1929	260	4-1/4	-	-
106	do.	Hotel Viggo	-- Douglas	-	400 $\pm$	-	-	-
107	1 mile north-west	G. A. Carmichael	-	-	60	8	-	-
108	do.	Tomas Lopez	-	-	50	6	-	-
109	do.	Lloyd David	-- David	1930	54	6	52	2+
110	3/4 mile south southeast	Jim Gonzales	A. Sandoval	1928	-	-	-	-
111	1 mile south	George Edds	E. R. David	-	90	6-5/8	-	-
112	1 mile south southwest	J. C. Draper	-	-	95	8	-	-
113	3 $\frac{1}{4}$ miles south southwest	do.	-- David	-	200 $\pm$	5-3/16	-	-
114	2 $\frac{1}{2}$ miles southwest	A. L. Draper	-	-	90 $\pm$	6-5/8	-	-

a/ W, windmill; A, air lift; J, jack pump; E, electric motor; G, gasoline engine or oil engine; F, artesian flow.

b/ RR, locomotive; Ind, industrial; D, domestic; S, stock; N, not used.

c/ Hardness as calcium carbonate determined by the soap method.

All wells are drilled unless otherwise noted in remarks.

No.	Water level		Method of lift and kind of power a/	Use of water b/	Field tests parts per million			Remarks
	Depth below bench mark (ft.)	Date of measurement			Hardness c/	Chloride	Sulphate d/	
1	-	-	W	-	-	-	-	Las Animas well.
2	-	-	W	S	1,100	1,100	80	Pila Blanca well.
3	-	-	W	D,S	600	600	180	Headquarters well.
4	-	-	W	D,S	800	750	50	do.
51	-	-	W	D,S	750	600	80	do.
52	-	-	W	D,S	800	650	60	
53	-	-	W	D,S	750	600	70	
54	53.0	Mar. 21, 1934	W	S	700	600	60	Reported production, 20 gallons a minute. f/
55	58.8	do.	W	S	550	310	50	Reported production, 12 gallons a minute. f/
56	-	-	-	N	-	-	-	Oil test, no production. Reported strong flow of water from
101	-	-	A,G	Ind	550	450	50	Loose, 954 to 1,083 feet. f/ dry gravel, 32 to 50 feet.
102	-	-	W	N	1,000	1,100	-	Dug well. Reported production, 10 gallons a minute f/
103	-	-	-	N	1,000	1,100	-	do.
104	-	-	W	Ind	470	420	-	Reported production, 12 gallons a minute. f/
105	-	-	W	D	450	380	-	
106	-	-	W	D	600	460	-	
107	-	-	W	D,S	460	370	-	
108	-	-	W	D,S	420	260	-	
109	-	-	W	D	450	150	30	Reported production, 12 gallons a minute. f/
110	-	-	W	D,S	750	650	90	
111	-	-	W	S	600	550	200	
112	-	-	W	S	-	-	-	
113	-	-	W	D,S	650	480	80	
114	66.5	Jan. 2, 1934	W	S	550	480	100	

d/ Sulphate test by turbidity method and may be as much as 25 per cent in error.  
e/ For analysis of water see under well number in table pp. 14-15.  
f/ Reported by driller.

## Records of wells in northern part of Jim Hogg County, Texas--Continued

No.	Distance from Hebronville	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water-bearing bed	
							Depth to top of bed (ft.)	Thickness of bed (ft.)
e/115	5 $\frac{1}{2}$ miles southwest	W. M. Gill	E. R. David	1928	109 ±	4-1/4	-	-
e/116	1/2 In Hebronville	Edds Lumber Co.	-	1908	264	-	260	4
e/117	do.	-- Gonzales	-	Old	60	-	-	-
118	do.	Texas-Mexican Railway	T. Coleman	1921	339	6-5/8	-	-
119	do.	S. Gutierrez	-	1932	260	-	-	-
151	4 miles east southeast	W. W. Jones	E. R. David	Old	160	6	-	-
152	5 $\frac{1}{2}$ miles southeast	W. W. Jones No. 1	Bob Wood Oil & Gas Co.	1922	3,252	12 $\frac{1}{2}$	-	-
153	do.	W. W. Jones	do.	1922	175	5-3/16	-	-
154	4 miles south southeast	do.	D. D. David	Old	206	5-3/16	-	-
155	3 $\frac{1}{2}$ miles east southeast	do.	do.	Old	-	6	-	-
156	2 $\frac{1}{2}$ miles east	do.	-	-	150	6	-	-
157	1 mile east	Kane Cotton Oil Co.	E. R. David	-	240	6	-	-
158	2 miles east northeast	Las Palmas Dairy	E. R. & L. L. David	1926	280	6	-	-
201	10 miles southeast	T. P. Morgan	-	-	100 +	5-3/16	-	-
202	9 $\frac{1}{2}$ miles southeast	do.	-	-	108 ±	6-5/8	-	-
203	8 $\frac{1}{2}$ miles southeast	do.	-	-	126 ±	6-5/8	-	-
204	11 miles southeast	do.	-	-	100 ±	6-5/8	-	-
205	13 miles southeast	Eduardo Perez	-	-	65	5-3/16	-	-
206	10 $\frac{1}{2}$ miles southeast	T. P. Morgan No. 1	-	1932	4,179	12 $\frac{1}{2}$	924	50
251	13 $\frac{1}{2}$ miles southeast	Andres Conales	-	-	98	6-5/8	-	-
252	13 miles southeast	do.	-	-	120	6-5/8	-	-
253	14 $\frac{1}{2}$ miles southeast	do.	-	-	100	6-5/8	-	-
254	16 miles southeast	W. G. Clark	-	-	-	5-3/16	-	-
255	15 miles southeast	W. W. Jones	-	-	120	5-3/16	-	-
256	do.	do.	-	-	134	5-3/16	-	-
e/257	13 miles southeast	I. Guerra	-	-	98	6-5/8	-	-

All wells are drilled unless otherwise noted in remarks

No.	Water level		Method of lift and kind of power a/	Use of water b/	Field tests parts per million			Remarks
	Depth below bench mark (ft.)	Date of measurement			Hardness c/	Chloride ride	Sulfate d/	
115	91.3	Mar. 29, 1934	W	S	600	420	90	
116	10.2	Mar. 22, 1934	W, J, G	D, S	-	450	-	Well reported to have had a flow when completed.
117	-	-	-	N	-	-	-	Dug well. Now caved and abandoned.
118	-	-	J, E	RR	550	450	50	
119	-	-	W	D, S	450	400	-	
151	-	-	W	D, S	320	380	-	Baldora hill well.
152	-	-	F	S	60	550	200	Agua Caliente well. Temperature 113° F. Flow measured Mar. 22, 1934, 150 gallons a minute.
153	-	-	W	D, S	800	700	240	Agua Caliente windmill.
154	-	-	W	D, S	450	250	-	Palo Alto well.
155	-	-	W	S	370	230	-	Pleito well.
156	-	-	W	D, S	410	310	-	Balderas railroad well.
157	-	-	W	D, Ind	310	250	-	
158	-	-	W	S	490	420	-	South well.
201	-	-	W	D, S	600	410	40	Palo Blanco well.
202	-	-	W	S	340	320	15	Liebre well.
203	-	-	W	S	900	850	30	Llano well.
204	-	-	W	D, S	550	500	35	Baluarte well.
205	-	-	W	D, S	380	450	-	
206	-	-	-	-	-	-	-	Oil test, no production. Strong water sand, 924 to 974 feet.
251	74.6	Feb. 6, 1933	W	S	150	260	-	Baluarte well.
252	57.0	do.	W	S	320	300	-	
253	72.2	do.	W	S	700	700	-	Temperature 76° F.
254	-	-	W	S	850	800	-	
255	-	-	W	S	650	750	200	South Mocho well.
256	-	-	W	S	750	700	180	North Mocho well.
257	-	-	W	S	700	800	100	

## Records of wells in northern part of Jim Hogg County, Texas--Continued

No.	Distance from Hebbronville	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water-bearing bed	
							Depth to top of bed (ft.)	Thickness of bed (ft.)
258	12½ miles southeast	Roy Yeager	E. R. David	1933	142	5-3/16	121	15
259	do.	do.	-	1903	130	5-3/16	-	-
260	11 miles southeast	do.	-	-	140	5-3/16	-	-
261	10 miles south southeast	W. W. Jones No. 1	Jim Hogg Oil Co.	-	2,780	-	-	-
262	12 miles south southeast	-- Perez	-	-	110	-	-	-
263	13 miles south southeast	W. W. Jones	-	-	150	4	-	-
e/264	11 miles south southeast	do.	-	-	160	5-3/16	-	-
265	10 miles south southeast	do.	E. R. David	-	171	4-1/4	-	-
266	do.	do.	do.	-	181	4-1/4	-	-
267	13 miles southeast	A. Canales No. 1	O. W. Killam	1927	3,075	-	-	-
301	7 miles south	T. P. Morgan	-	-	143	4-1/4	-	-
302	7 miles south southeast	W. W. Jones	E. R. & L. L. David	-	200	5-3/16	-	-
303	9 miles south southeast	do.	-	-	155	6-5/8	-	-
304	9½ miles south	T. P. Morgan	-	-	175	8	-	-
305	11 miles south	W. W. Jones	-	-	150	5-3/16	-	-
306	11 miles south	do.	-	-	220	5-3/16	-	-
e/307	8 miles south	T. P. Morgan	Barnhart No. 1	1930	2,005	12	-	-
308	7 miles south	do.	Paisano Oil Syndicate	-	3,080	10	-	-
351	9½ miles south southwest	W. W. Jones	Adolfo Calderon	-	200	5-3/16	-	-
352	8 miles south southwest	P. B. Harbison	E. R. David	1920	136	-	124	12
353	do.	George Edds	-	-	-	5-3/16	-	-
354	7 miles south southwest	do.	-	-	-	5-3/16	-	-
355	9 miles south	do.	-	-	150	5-3/16	-	-
356	11 miles south	W. W. Jones	-	-	150	5-3/16	-	-
357	12½ miles south southwest	do.	A. David	1914	150	5-3/16	-	-

All wells are drilled unless otherwise noted in remarks

No.	Water level		Method of lift and kind of power a/	Use of water b/	Field tests parts per million			Remarks
	Depth below bench mark (ft.)	Date of measurement			Hardness c/	Chloride ride	Sulfate d/	
258	-	-	W	D,S	430	340	50	South Huilotes well. Reported production, 15 gallons a minute.
259	-	-	W	D,S	390	330	60	North Huilotes well.
260	-	-	W	S	1,400	1,400	240	
261	-	-	F	S	-	-	-	Oil test, not visited, reported to have artesian flow.
262	-	-	W	D,S	460	210	30	
263	-	-	W	S	900	800	80	Numero Seis well.
264	-	-	W	S	330	280	20	Coyote well.
265	-	-	W	S	1,200	800	100	North Numero Tres well.
266	-	-	W	S	1,100	850	70	South Numero Tres well.
267	-	-	-	-	-	-	-	Oil test, no production.
301	-	-	W	N	-	-	-	Vivoras well. Now dry at 143 feet.
302	-	-	W	S	900	800	25	Rodeo well.
303	-	-	W	S	750	700	90	Chilipitin well.
304	-	-	W	S	800	650	25	Coma well.
305	-	-	W	S	850	650	60	Cuatro de Julio well.
306	-	-	W	S	500	450	40	Cypress well.
307	-	-	F	S	30	480	300	Oil test, temperature 102° F. Measured discharge, 200 gallons a minute, Mar. 21, 1934.
308	-	-	F	D,S	20	430	160	Oil test a minute, Feb. 6, 1934. temperature 100° F. Estimated flow 50 gallons a minute, Feb. 6, 1934.
351	-	-	W	D,S	700	400	80	Sordo well.
352	-	-	W	D,S	480	370	50	Reported production, 6 gallons a minute. f/
353	-	-	W	S	1,100	800	45	Canejos well.
354	-	-	W	S	950	750	30	Chapote well.
355	-	-	W	S	1,000	800	45	Liebre well.
356	-	-	W	S	900	800	40	Papalote de la Loma well.
357	-	-	W	S	700	600	80	Papalote Nuevo well.

Records of wells in northern part of Jim Hogg County, Texas--Continued

No.	Distance from Hebronville	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water-bearing bed	
							Depth to top of bed (ft.)	Thickness of bed (ft.)
358	13 miles south southwest	M. Saenz	-	-	203	-	-	-
359	12 miles south southwest	W. W. Jones	-	-	207 <sup>+</sup>	6-5/8	-	-
360	10 miles south southwest	do.	J. W. Lawson	1916	769 <sup>+</sup>	6-5/8	-	-
371	10 <sup>1</sup> / <sub>2</sub> miles southwest	Mrs. J. Armstrong	-- Applewhite	1898	180	5-3/16	-	-
e/372	do.	do.	-- Brooks	1916	200	5-3/16	-	-
373	12 <sup>1</sup> / <sub>2</sub> miles southwest	E. Gutierrez Heirs	-- David	Old	250	5-3/16	-	-
374	13 miles southwest	Mrs. J. Armstrong	-	-	210	-	-	-
e/375	12 <sup>1</sup> / <sub>2</sub> miles southwest	do.	-- David	1933	94	5-3/16	-	-
376	13 <sup>1</sup> / <sub>2</sub> miles southwest	do.	-	-	72	-	-	-
377	14 <sup>1</sup> / <sub>2</sub> miles southwest	do.	-	-	184	5-3/16	-	-
378	14 miles southwest	E. L. Armstrong	Vina Sandoval	1921	182	5-3/16	-	-
379	do.	E. Gutierrez, Heirs	-	-	157	4-1/4	-	-
380	13 <sup>1</sup> / <sub>2</sub> miles southwest	A. Martinez	-	-	215	5-3/16	-	-
381	12 <sup>1</sup> / <sub>2</sub> miles southwest	do.	-	-	120	5-3/16	-	-
382	12 miles southwest	do.	-	-	108	4-1/4	-	-
e/401	18 miles southwest	W. P. Allen	J. S. Lawson	Old	300	4-1/4	-	-
402	do.	do.	-	Old	60	60	-	-
			J. A. Hutchins	Old	443	-	-	-

a/ W, windmill; A, air lift; J, jack pump; E, electric motor; G, gasoline engine or oil engine; F, artesian flow.

b/ RR, locomotive; Ind, industrial; D, domestic; S, stock; N, not used.

c/ Hardness as calcium carbonate determined by the soap method.



All wells are drilled unless otherwise noted in remarks

No.	Water level		Method of lift and kind of power a/	Use of water b/	Field tests parts per million			Remarks
	Depth below bench mark (ft.)	Date of measurement			Hard-ness c/	Chlo-ride	Sul-phate d/	
358	-	-	W	D,S	-	700	-	
359	-	-	W	S	700	550	200	Azucar well.
360	-	-	W	S	650	600	20	Chorita well. Reported to flow 60 gallons a minute in 1917. Casing; 587 feet of 6 5/8-inch and 766 feet of 5 3/16-inch.
371	-	-	W	D,S	600	400	100	North Sordo Viejo well.
372	-	-	W	D,S	500	430	40	South Sordo Viejo well.
373	-	-	W	D,S	220	150	50	Chancaca well.
374	-	-	-	N	-	-	-	Weak well, now abandoned.
375	-	-	W	S	390	270	70	Todo fiero well.
376	-	-	-	N	-	-	-	Weak well now abandoned.
377	-	-	W	S	600	600	70	Chatersciosa well.
378	-	-	W	S	-	-	-	Dripping Vats well.
379	-	-	W	S	1,100	850	90	San Pedro well.
380	-	-	W	S	800	650	90	Coyote well.
381	-	-	W	S	2,500	2,200	90	Agua Amargo well.
382	-	-	W	S	750	1,000	100	Chapote well.
401	-	-	W	D,S	-	900	-	North well at Josefina (Jesus Maria) ranch.
402	52.2	Mar. 23, 1934	W	D,S	-	50	-	Dug well.
	-	-	-	N	-	-	-	Drilled well in bottom of dug well but has caved and is not used now.

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

e/ For analysis of water see under well number in table pp.14-15.

f/ Reported by driller.

Table of Drillers' Logs, northern part of Jim Hogg County, Texas

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 55</u>		
Soil - - - -	1	1
Caliche - - - -	16	17
Sand rock - - - -	54	71
Gravel - - - -	5	76
Clay and shale - - - -	45	121
Water sand - - - -	4	125

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 56</u>		
P. W. Wilson, George Edds Number 1.		
Surface soil- - - - -	3	3
Caliche - - - - -	47	50
Red clay and caliche - - - - -	10	60
Gravel - - - - -	12	72
Hard sand - - - - -	4	76
Shale - - - - -	85	161
Hard gravel - - - - -	19	180
Red shale - - - - -	197	377
Sand with hard streaks- - - - -	23	400
Red shale - - - - -	268	668
Shale and boulders - - - - -	52	720
Sticky shale - - - - -	66	786
Sandy shale and boulders- - - - -	14	800
Sticky shale - - - - -	64	864
Brittle shale- - - - -	26	890
Water sand - - - - -	20	910
Shale - - - - -	44	954
Sand and gravel with artesian flow - - - - -	129	1083
Bluish gray shale and lime - - - - -	49	1132
Shale with streaks of sand	53	1185
Sticky shale - - - - -	27	1212
Brittle shale- - - - -	45	1257
Pink sticky shale - - - - -	13	1270
Brittle shale- - - - -	57	1327
Sticky shale - - - - -	20	1347
Limy shale - - - - -	44	1391
Sticky shale - - - - -	33	1424
Limy shale - - - - -	10	1434
Sticky shale - - - - -	18	1452
Sand- - - - -	2	1454
Limy shale - - - - -	15	1469
Sticky shale - - - - -	29	1498
Limy shale - - - - -	82	1580
TOTAL DEPTH		3360

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 101</u>		
Soil- - - - -	3	3
Caliche- - - - -	35	38
Dry gravel- - - - -	5	43
Shale or clay- - - - -	297	340
Soft sandstone - - - - -	5	345

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 104</u>		
Soil- - - - -	4	4
Caliche- - - - -	16	20
Soft sand rock - - - - -	30	50
Shale and clay - - - - -	150	200
Water and sand - - - - -	12	212

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 152</u>		
Bob Wood Oil & Gas Co., W. W. Jones Number 1.		
White lime- - - - -	65	65
Red clay- - - - -	100	165
Gravel and boulders- - - - -	15	180
Red clay - - - - -	10	190
Sand and gravel - - - - -	40	230
Red gumbo - - - - -	80	310
Water sand- - - - -	50	360
Red sticky shale and gumbo- - - - -	170	530
Water sand- - - - -	5	535
Red gumbo - - - - -	80	615
Water sand- - - - -	55	670
Sticky gumbo - - - - -	35	705
Fine sand - - - - -	30	735
Gravel and sand - - - - -	2	737
Red gumbo - - - - -	13	750
Sand- - - - -	40	790
Gumbo - - - - -	5	795
Sand- - - - -	5	800
Gravel and sand - - - - -	50	850
Red gumbo - - - - -	5	855
Sand and gravel - - - - -	25	880
Gumbo with streaks of sand - - - - -	20	900
Sand- - - - -	4	904
Red and brown shale- - - - -	96	1000
Sandy gumbo - - - - -	10	1010
Brown shale - - - - -	20	1030
Red gumbo - - - - -	20	1050
Gravel and sand - - - - -	10	1060
Brown shale - - - - -	10	1070

(Continued on next page)

Thickness Depth	(feet)	(feet)
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Driller's log of well 206--Continued

Sticky shale	67	752
Sticky shale	118	870
Sticky shale	54	924
Sand	50	974
Sticky shale	18	992
Sandy shale	8	1000
Sticky shale	65	1065
Sand	10	1075
Sticky shale	14	1089
Gravel	8	1097
Shale	43	1140
Sand	35	1175
Sticky shale	25	1200
Sand	12	1212
Shale	2	1214
Sand and gravel	28	1242
Sand	64	1306
Shale	1	1307
Sand	40	1347
Shale	1	1348
Sand with fresh water	6	1354
Shale	6	1360
Sand	73	1433
Shale	3	1436
Sand with fresh water	18	1454
Sand and shale	139	1593
Sand with fresh water	5	1598
Shale	4	1602
Sand	23	1625
Sticky shale	32	1657
Sand with fresh water	75	1732
Shale	21	1753
TOTAL DEPTH		4179

William Barnhart, R. H. McCampbell

Driller's log of well 307

Sandy soil	3	3
Galliche	37	40
Clay	70	110
Cemented gravel conglom- erate	9	119
Clay	2	121
Sticky shale and lime	189	310
Sticky shale	55	365
Very hard lime and boulders	33	398
Shale	2	400
Sandy shale	10	410
Water sand	20	430

(Continued on next page)

Thickness Depth	(feet)	(feet)
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Driller's log of well 152--Continued

Gray sand	5	1075
Brown shale	125	1200
Red and brown shale	245	1445
Dark gray sand with water	5	1450
Red gumbo	63	1513
Sand, artesian flow	22	1535
Gravel and sand	5	1550
Red shale	60	1610
Sand and shale	30	1640
Red gumbo	35	1675
Sand	45	1720
Red shale	50	1770
Sand	15	1785
Blue gumbo	50	1835
Red shale	17	1852
Brown and red shale	78	1930
Gray shale	20	1950
Lime and shell	3	1953
Brown and gray shale	87	2040
Blue shale	5	2045
Water sand	20	2065
Brown and blue shale	30	2095
Sand and gravel	30	2125
Sand and shale	30	2155
Brown shale	5	2160
Gravel	5	2165
Sand (flowed approxi- mately 3,000 barrels of water a day)	15	2180
Gravel and sand (flowed approximately 8,000 barrels of water a day)	5	2185
Sand	10	2195
Brown shale	5	2200
Green shale	7	2207
TOTAL DEPTH		3252

Driller's log of well 206

Galliche and hard sand	60	60
Red shale	30	90
Soft sand	10	100
Shale	123	223
Sand	7	230
Sand and gravel	70	300
Shale	24	545
Water sand	9	554
Sticky shale	71	625
Sand and shale	10	635
Sticky shale	38	673
Sand with 'gyp' water	12	685

## Table of Drillers' Logs, northern part of Jim Hogg County, Texas--Continued

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 307--Continued</u>		
Shale and lime - - -	86	516
Sticky shale - - -	196	712
Sandy shale - - -	11	723
Sticky shale and lime -	177	900
Sandy shale - - -	20	920
Black and white sand -	12	932
Sticky shale - - -	23	955
Water sand - - -	25	980
Sandy shale - - -	65	1045
Sandy shale and boulders - - -	15	1060
Boulders and gravel with shale - - -	10	1070
Shale and lime - - -	50	1120
Sticky shale - - -	198	1318
Boulders - - -	23	1341
Sticky shale - - -	26	1367
Gravel - - -	46	1413
Shale - - -	2	1415
Gravel - - -	30	1445
Sandy shale - - -	15	1460

	Thickness (feet)	Depth (feet)
<u>Driller's log of well 307--Continued</u>		
Gravel - - -	47	1507
Sticky shale - - -	37	1544
Sandy shale - - -	19	1563
Sticky shale - - -	37	1600
Sandy shale - - -	3	1603
Hard sticky shale - -	29	1632
Sticky shale - - -	18	1650
Hard shale - - -	22	1672
Hard sticky shale - -	68	1740
Sticky shale - - -	40	1780
Brittle shale - - -	22	1802
Water sand - - -	24	1826
Sticky shale - - -	25	1851
Sand rock - - -	2	1853
Sandy shale - - -	3	1856
Sticky shale - - -	44	1900
Hard shale - - -	36	1936
Shale and soft lime -	32	1968
Sticky shale with sand streaks - - -	37	2005

## Analyses of water from northern part of Jim Hogg County, Texas

Well No.	Owner	Date of collection	Total dissolved solids (calc.)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K) (calc.)
54	Tom East	Mar. 29, 1934	1,430	-	173	40	301
105	Edds Lumber Co.	Mar. 31, 1934	961	0.67	109	37	195
115	W. M. Gills	Mar. 29, 1934	1,144	2.3	138	42	222
116	Edds Lumber Co.	Mar. 22, 1913	1,133	.3	122	33	199
117	-- Gonzales	Mar. 4, 1913	1,266	0	-	-	408
257	I. Guerra	Mar. 21, 1934	1,879	3.6	140	53	492
264	W. W. Jones	do.	767	-	68	23	196
307	T. P. Morgan	Mar. 22, 1934	1,479	-	c/ 4	-	585
372	Mrs. J. Armstrong	Mar. 21, 1934	921	17	130	29	171
375	do.	do.	870	.18	106	31	173
401	W. P. Allen	Mar. 3, 1913	1,265	0	-	-	371

a/ Sample collected by David Donoghue under the supervision of Alex. Deussen.

(Parts per million, Well numbers correspond to numbers in table of record of wells)

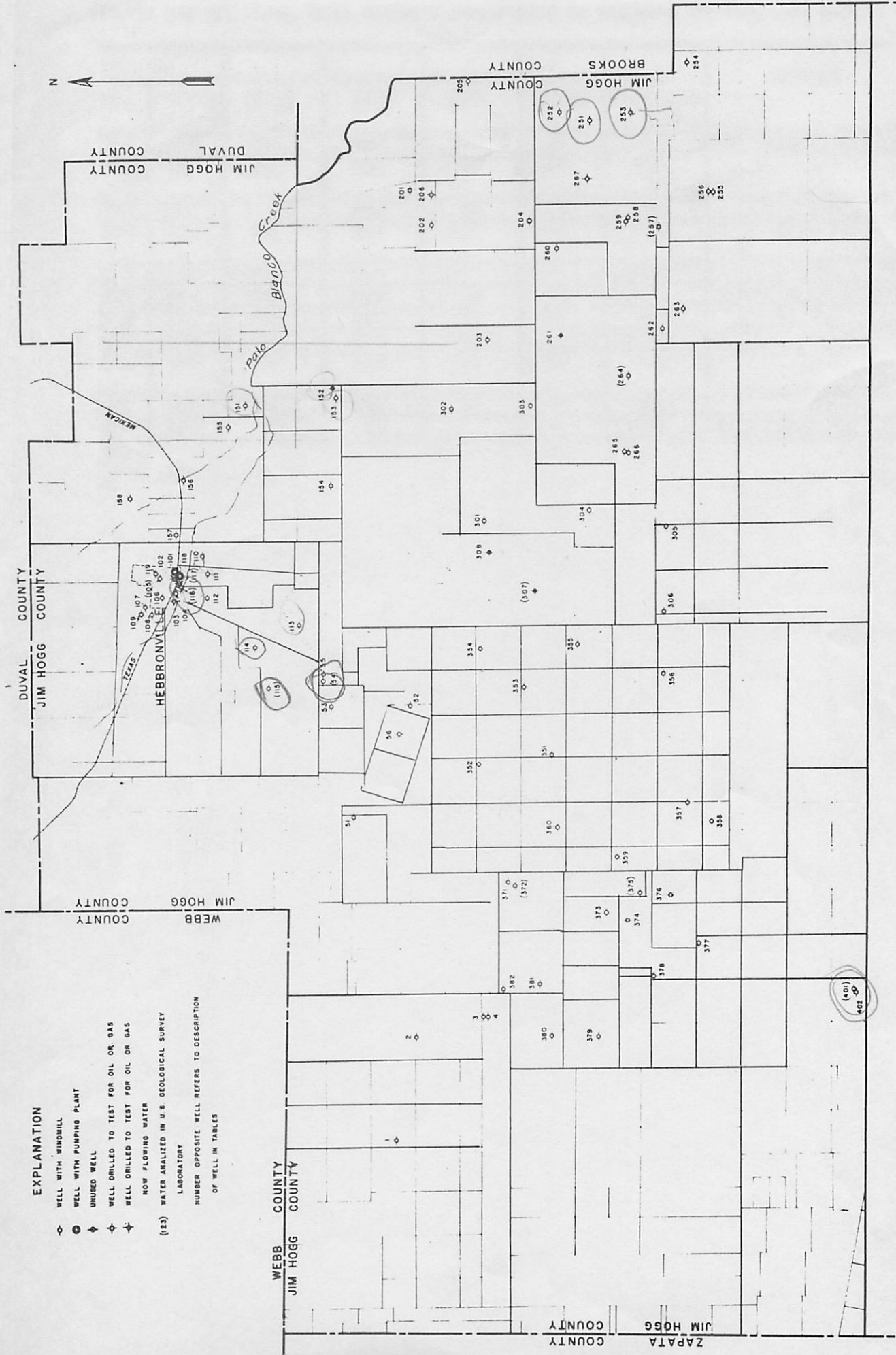
Well No.	Bicar- bonate (HCO <sub>3</sub> )	Sulphate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub>	Analyst
54	330	161	555	0.0	37	596	Margaret D. Foster
105	218	97	385	.2	30	424	do.
115	277	198	395	.3	12	517	do.
116	192	80	447	-	-	440	W. T. Read <u>a/</u>
117	242	246	450	-	-	b/202	do.
257	324	179	820	.5	35	567	Margaret D. Foster
264	296	42	277	.5	15	264	do.
307	428	314	420	5.0	.46	b/ 12	do.
372	219	71	380	.1	32	444	do.
375	306	81	278	.2	49	392	do.
401	197	60	636	-	-	b/314	W. T. Read <u>a/</u>

b/Determined.

c/By turbidity.

**EXPLANATION**

- WELL WITH WINDMILL
- ⊙ WELL WITH PUMPING PLANT
- ⊕ UNUSED WELL
- ⊕ WELL DRILLED TO TEST FOR OIL OR GAS
- ⊕ WELL DRILLED TO TEST FOR OIL OR GAS
- ⊕ NOW FLOWING WATER
- (123) WATER ANALYZED IN U.S. GEOLOGICAL SURVEY LABORATORY
- NUMBER OPPOSITE WELL REFERS TO DESCRIPTION OF WELL IN TABLES



BASE COMPILED FROM LAND OWNERSHIP MAP,  
MAPS OF U.S. WAR DEPARTMENT AND FROM  
FIELD NOTES.

**MAP OF NORTHERN PART OF JIM HOGG COUNTY, TEXAS,  
SHOWING LOCATION OF WATER WELLS**



U.S. GEOLOGICAL SURVEY  
FIELD WORK BY JAMES C. CUMLEY

DRAWN BY H. P. THAYER