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GROUND-WATER RESOURCES  
OF  
ATASCOSA COUNTY, TEXAS

PROGRESS REPORT

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## ILLUSTRATIONS

- Map 1. Map of Atascosa County, Texas, showing location of water wells.
2. Wells in Poteet area.

# Progress Report on the Ground-Water Resources of Atascosa County, Texas

By

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## INTRODUCTION

### Previous reports; purpose of this report

Atascosa County, Texas, is underlain by water-bearing sands in several geologic formations. Wells in these sands furnish water for domestic purposes and stock throughout the county; for the public supply of all the towns and cities except Campbellton, which uses river water; for irrigation in several localities; for drilling oil wells in the central part of the county; for washing glass sand in the northern part of the county; and for maintaining several lakes which are used for hunting and fishing. By far the most productive formation is the Carrizo sand, but supplies of considerable magnitude are also obtained from sands in the Mount Selman and Cook Mountain formations. In many localities the wells in these formations flow, and in such areas much water is wasted.

An investigation of the geology and ground-water resources of Atascosa and Frio Counties was made during the summer of 1929 and 1930, and in December 1931 and June 1932, as a cooperative project between the Engineering Experiment Station of the Texas Agricultural and Mechanical College, the Geological Survey, United States Department of the Interior, and the Texas Board of Water Engineers. The work was done by John T. Lonsdale, under the direction of W. N. White of the Geological Survey, who is in charge of ground-water investigations in Texas. In February 1931 a report 1/ was released to the press giving a summary of the results of ground-water surveys in several counties in southwestern Texas, including the work by Lonsdale. In 1935 a detailed report was published by the Geological Survey as a water supply paper 2/ giving the results of the survey in Atascosa and Frio Counties.

Since Lonsdale's investigation was made many new wells have been drilled, withdrawals of ground water have increased materially, and artesian pressures have declined in most of the county. As a result of this decline, many of the irrigation farmers have become alarmed, particularly those who irrigate from flowing wells.

In the spring of 1944, the Atascosa County Soil Conservation District, composed of a large group of farmers, made a formal request to the Texas State Board of Water Engineers for further ground-water studies, with special reference to the increase in the development of ground water and the effect that it has had upon the principal artesian reservoirs. In response to this request made through Mr. John B. Temple, Chairman of the Conservation Board, an investigation was conducted by the writers in May and June 1944 and in August 1945. In the course of these studies, records of 130 wells that have been drilled since 1929-30 were obtained, the discharge of many wells both flowing and pumped was measured, artesian pressures in many of the flowing wells were recorded and water level measure-

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1/ Survey of the underground water of Texas by W. N. White in collaboration with O. E. Meinzer, February 16, 1931. Mimeographed report, 29 pages.

2/ Lonsdale, John T., Geology and ground-water resources of Atascosa and Frio counties, Texas: U. S. Geological Survey Water-Supply Paper 676, 1935.

ments were made in numerous wells that do not flow. Figures were compiled on the amount of land under irrigation from wells and the quantities of water used for all purposes. Samples of water were obtained from numerous wells, and analyzed in the chemical laboratory of the Geological Survey and the Texas Board of Water Engineers at Austin. A large part of the data thus assembled is given in the attached tables of well records, well logs and water well analyses.

#### Relation of the geology to the occurrence of ground water

The geology of Atascosa County and its relation to the occurrence of ground water was discussed in considerable detail by Lonsdale and will be reviewed only briefly here.

The rock formations exposed in the county are of Quaternary and Tertiary age, but rocks of Cretaceous age have been identified in several deep oil tests in the central and northern parts of the county. So far as the occurrence of usable ground water is concerned, only the formations of Tertiary age are important. The Quaternary stream and terrace deposits are thin and yield little or no water, and the Cretaceous rocks contain salty water. The Tertiary formations, named in the order of age from older to younger, are the Indio formation of the Wilcox group, Carrizo sand, Mount Selman formation, Cock Mountain formation, Yegua formation, and the Jackson formation.

Except in localities where there are notable folds or faults, the rocks dip generally to the south or southeast, which is also the general direction in which the land surface slopes. However, the dip is nearly everywhere steeper than the slope of the land surface, and therefore successively younger formations are encountered in crossing the area from north to south or from northwest to southeast. Each formation has an outcrop area from which it extends toward the south or southeast below the younger formations to progressively greater depths below the surface. Thus the formations that appear at the surface in the northern part of the county occur at depths of several thousand feet in the southern and southeastern parts of the county. For example, the Carrizo sand, which is at the surface in the northern part of the county, is found at a depth of about 4,000 feet near Campbellton in the southeastern part of the county.

The structure of the rocks in Atascosa County is favorable for the occurrence of artesian water. The formations are composed largely of permeable sands interbedded with relatively impermeable clays and shales. The source of the water supply in the permeable sands is the rain that falls on their outcrop areas and seepage from streams that rise farther north and flow southward across these areas. A part of the rain and stream water penetrates to the water table in the outcrop areas and thence percolates slowly down the dip to greater and greater depths. The water, being confined in the sands between beds of impermeable clay or shale, is under hydrostatic pressure from higher levels in the outcrop areas, and in localities having elevation considerably below the general level of the outcrops the pressure is great enough to produce artesian flows in wells.

## DEVELOPMENT OF GROUND WATER

### Carrizo sand

(See table of well records and map)

Irrigation - The production of ground crops in the Poteet area of northern Atascosa County, especially vegetables and strawberries, by means of irrigation from wells in the Carrizo sand started about 1904. It is believed that in the early days of this development, all the wells flowed. Later many of them were equipped with pumps. The first irrigation well, a flowing well, was drilled at Poteet in 1904, before the advent of the railroad. By 1910 ten flowing wells were in use, of which several were used for irrigation, and thereafter several were drilled each year until World War I, when the development was stopped on account of the high cost of drilling the wells and providing them with equipment where this was needed. After the war the development was resumed.

In 1929-30, 57 wells in the Carrizo sand were used for irrigation, of which 41 had a flow; a total of 1,350 acres was irrigated from them; and about 3,200 acre-feet of water (2.4 acre-feet per acre) was used. This is the equivalent of about 2.9 million gallons of water a day through the year.

As shown by plate 1 in the Lonsdale report, most of the irrigation in 1929-30 was in the northern part of the county near Poteet and was restricted generally to the lower lands in the Atascosa River Valley, only a few wells being on higher land at some distance from the stream. Most of the irrigation wells were within 5 miles of Poteet.

In 1945, 108 wells in the Carrizo sand were used for irrigation in Atascosa County, of which 51 are flowing wells; a total of about 3,544 acres was irrigated; and 7,900 acre-feet of water (2.2 acre-feet per acre) was used. This represents an average of about 7.0 million gallons of water a day throughout the year. Of the total number of wells in use, 98 were within a territory which still may be designated as the Poteet area, although its former boundaries have expanded in all directions, the most westerly wells now being about 10 miles from the town and the most easterly about 5 miles from the town (see map). Of the total number of acres under irrigation about 2,800 acres are in the Poteet area.

Public, industrial, domestic and stock use - Wells in the Carrizo sand furnish the public supplies of Poteet, North Pleasanton and Jourdanton. The total average consumption by the three towns is about 125,000 gallons a day, according to the water superintendents. An average of 60,000 to 70,000 gallons a day is pumped from a Carrizo well in the northern part of the county for washing sand which is used for the manufacture of glass. Oil well drilling, mostly in the central part of the county, requires an estimated average of half a million gallons a day. Many Carrizo wells are used for domestic purposes and stock, but the total consumption for these purposes is not large. However, in order to provide water for stock, several of the irrigation wells of large flow are allowed to remain open when they are not needed for irrigation, and from some of them large quantities are wasted.

Waste of water - During the survey in 1944-45, all flowing wells in the Carrizo sand were visited and when it was possible the flow of each well was measured with a current meter or weir, or with a ten-gallon container. Where measurements could not be made the flow was carefully estimated. Altogether, 75 flowing Carrizo wells were visited. The rate of flow, it was found, varied from less than a gallon a minute to as much as 500 gallons a minute (see table of well records). The combined flow from the 75 wells amounted to about 10,300 gallons a minute, the

equivalent of 14.8 million gallons a day or 16,700 acre-feet a year. Of the total flow, it is estimated that an average of about 6,300 gallons a minute is regulated by shut-in valves and put to beneficial use for irrigation or other purposes. The remaining 4,000 gallons a minute (about 5.8 million gallons a day) is mostly wasted although some of it is used to supply artificial lakes for hunting and fishing, or to maintain a flow in streams for watering stock during dry periods. These figures were compiled mostly from measurements made in May 1944 during a period when very little water was needed for irrigation and most of the pumps, with which the non-flowing irrigation wells and some of the flowing wells are equipped, were idle. At such times the artesian head in the aquifer is higher and the waste of water from the uncontrolled wells is somewhat greater than it is during periods of heavy irrigation.

Total withdrawals in 1929-30 compared with total in 1944-45 - The following table gives the estimated withdrawals of water from the Carrizo sand in 1929-30 and in 1944-45. The figures show that the withdrawals were about 6,000 acre-feet or 63 percent greater in the last period than they were in the first one.

Withdrawals of ground water from the Carrizo sand in Atascosa County

Disposal	1929-30		1944-45	
	Acre feet	Million gallons a day	Acre feet	Million gallons a day
Irrigation	3,200	2.9	7,900	7.0
Public, industrial domestic and stock	(Not computed but small)		1,100	1.0
Wasted	6,300	5.6	6,500	5.8
Total	<u>9,500</u>	<u>8.5</u>	<u>15,500</u>	<u>13.8</u>

Net decline in artesian head - In 1929-30 Lonsdale recorded the artesian head as shown by the shut-in pressures in 72 Carrizo wells in Atascosa County. In 1944-45 such measurements were made in 76 Carrizo wells, of which 31 had been measured by Lonsdale. The following table gives the results of the two sets of measurements for comparison.

Artesian head (shown by water level or shut-in pressure) in wells in Carrizo sand in Atascosa County, Texas, in 1929-30, May and June 1944, and August, 1945; and net decline

Well No.	Artesian head in feet above (+) or below (-) land surface			Net decline (feet)	
	(1929-30)	May-June 1944	August 1945	1929-30 to 1944	1929-30 to 1945
164	+17	+7.2	+1.7	9.8	15.3
165	-34.5	-38.1	-39.3	3.6	4.8
168	-90	-99.6	-101.2	9.6	11.2
169	-69	-76.2	-79.2	7.2	10.2
177	+5	+2.0		3.0	
179	+18	+2.0		16.0	
187	-32	-42.8	-45.3	10.8	13.3
188	-12	-30.6		18.6	
196	+3	-8.9		11.9	
197	+23	+7.5		15.5	
203	+5	-0.2	-1.8	5.2	6.8
205	+28	+9.0		19.0	
209	-28	-35.6	-36.9	7.6	8.9
211	+1	-9.0		10.0	
213	-5	-19.3	-22.0	14.3	17.0
214	-25	-32.4	-34.6	7.4	9.6
215	+6	-2.5		8.5	
218	+30	+14.0		16.0	
224	+9	-4.2	-6.1	13.2	15.1
226	+15	+0.5	-3.2	14.5	18.2
230	+6	-5.0		11.0	
234	+50	+32.5		17.5	
a/244 and 77	+96	+71.5		24.5	
246	-12	-22.8	-24.7	10.8	12.7
249	+55	+29.5		25.5	
250	-6.5	-20.0		13.5	
253	+2	-6.0		8.0	
299	-27.5	-36.4		8.9	
337	-60	-68.0	-69.7	8.0	9.7
342	+15	+1.5		13.5	

a/ Measurement made in well 244 in 1929-30, and in well 77 about fifty feet from well 244 in 1944.

The largest decline between 1929-30 and 1944 occurred in well 244 at Pleasanton and well 249 about 3 miles west of Pleasanton, the drop in head amounting to about 25 feet. Both of these wells have flowed unchecked for many years. Well 249 was flowing at the rate of 500 gallons a minute when it was measured in 1945. Well 244 had a flow of only 10 gallons a minute, but the casing is in very poor condition and it is believed the water may be escaping into upper sands at a rate comparable to the flow of well 249 or greater.

Large declines of artesian pressure were observed in the Poteet area where the withdrawal of water is heaviest. The water levels or artesian pressure in 10 wells, Nos. 179, 188, 196, 197, 205, 213, 218, 226, 230, and 235, showed declines ranging from 11 feet to 19 feet and averaging 15.4 between 1929-30 and 1944. Two of the wells, Nos. 213 and 226, remeasured in 1945, showed a further decline of 2.7 feet. In other parts of the Poteet area the decline ranged from 3 to 10 feet between 1929-30 and 1944. In well 246, about  $1\frac{1}{2}$  miles east of Charlotte the decline amounted to 12.7 feet between 1930 and 1945. According to the owner of the well the water level was only 2 feet below the land surface in 1918. The decline from 1918 to 1945 was, therefore, about 21 feet. In the outcrop area of the Carrizo sand the water level in well 168 north of Poteet and in well 169 north of Leming were respectively 11.2 and 10.2 feet lower in 1945 than they were in 1930. The only available records of fluctuations in water levels in any of the wells during the intermediate years (1931 to 1943) are those obtained in well 62 by the owner, Mr. Cyril Hooge. These records give the results of one measurement each year in 1925, 1926 and 1937, 14 measurements in 1938, 5 in 1939, 5 in 1940, 1 in 1941, 1 in 1944. The well is about 3 miles east of Poteet in an area of heavy withdrawal. The following table gives the fluctuation in feet above or below the land surface.

Artesian head in well 62, shown by water level, in feet above (+) or below (-) land surface

<u>Date</u>	<u>Water level</u>	<u>Date</u>	<u>Water level</u>
Jan. 1, 1925	+28.0	Nov. 14, 1938	+6.8
Jan. 1, 1926	+26.0	Nov. 28, 1938	+7.0
Sept. 1, 1937	+ 4.0	Jan. 1, 1939	+7.5
Jan. 1, 1938	+ 8.0	Mar. 27, 1939	+6.0
June 1, 1938	+ 8.0	Apr. 8, 1939	+2.5
Sept. 1, 1938	+ 4.0	Aug. 10, 1939	+5.0
Sept. 20, 1938	+ 5.5	Oct. 1, 1939	+1.0
Oct. 1, 1938	+ 3.2	Feb. 1, 1940	+5.5
Oct. 8, 1938	+ 3.2	Feb. 12, 1940	+6.0
Oct. 10, 1938	+ 4.2	Mar. 9, 1940	+3.5
Oct. 15, 1938	+ 3.5	Mar. 11, 1940	+4.5
Oct. 17, 1938	+ 4.5	Mar. 12, 1940	+3.5
Oct. 22, 1938	+ 5.0	Oct. 1, 1940	-2.0
Oct. 24, 1938	+ 5.0	Jan. 1, 1941	+4.5
Nov. 12, 1938	+ 6.8	a/May 8, 1944	+4.4

a/ Measured by R. W. Sundstrom.

When a well is allowed to flow, or is pumped, the artesian pressure (or water level) in the well drops and a hydraulic gradient is established toward the well from all directions the gradient taking the shape of an inverted cone around the well. This cone spreads out, if the discharge continues, becoming flatter as the distance from the well increases. If a number of wells are allowed to flow, or are pumped, the pressure cones tend to merge into a large depression, radiating out from the center of withdrawals. This is in accordance with the laws of hydraulics and in itself is no cause for alarm. A certain amount of decline in water levels or artesian pressures must occur in every area in which ground water is developed in considerable quantities. If the rate of withdrawal remains constant and the aquifer is not overdrawn a state of equilibrium should be reached in a few years and the decline should cease or become very small. On the other hand, the decline may be expected to continue as long as the rate of withdrawal increases.

It is only when the decline persists year after year without a corresponding increase in the rate of withdrawals that there is reason for apprehension. This may indicate a serious overdraft.

The decline of artesian pressures in the Carrizo wells of Atascosa County since 1929-30 has been caused in part by an increase in withdrawals from the aquifer of about 6,000 acre-feet a year or about 63 percent of the draft in 1929-30. The effect of this increase is modified if not largely cancelled in the figures on net decline between 1929-30 and 1944, shown in the table on page 5, because the seasonal withdrawals for irrigation were heavy when the measurements were made in 1929-30 and very light when the measurements were made in 1944. On the other hand, the drop in head between measurements in May 1944 and August 1945 may have been largely the result of the greater seasonal draft for irrigation during the last period. Whether or not the decline has reached approximate equilibrium for the present rate of pumping cannot be determined with certainty from the data at hand. It appears probable, however, that some further decline in water levels or artesian pressures may occur if the present rate of withdrawals is maintained. If the withdrawals are increased the rate of decline will be accelerated. As a result, flowing wells in which the artesian head is only slightly above the ground will cease flowing and the pumping levels in some of the wells, which are now equipped with centrifugal pumps may become so low that other types of pumps will have to be installed. On the whole, however, the evidence tends to show that the artesian reservoir is not being overdrawn and that it would sustain a somewhat greater draft without serious depletion. Further observations should throw additional light on this question.

It should be pointed out that the present consumption of water from Carrizo wells for all useful purposes--irrigation, public supply, industrial use, etc., could be increased about 70 percent without increasing the draft on the underground reservoir, if the present annual waste of water were stopped.

Quality of water from wells in the Carrizo sand - The table of analyses on pages 50 and 51 gives the results of chemical tests of water from 35 wells in the Carrizo sand in which the iron, bicarbonate, sulfate, chloride and total hardness in the water were determined and results of more complete analyses of water from 13 wells.

#### Mount Selman formation

Irrigation - Water from the Mount Selman formation is used to some extent for irrigation in a few scattered areas 4 to 7 miles east of Pleasanton. In 1929-30 nine irrigation wells were reported as drawing from this formation. Since 1930 nine new wells have been drilled but several of the earlier wells have been abandoned. In 1945, 13 Mount Selman wells are being used for irrigation and somewhat less than 400 acres are irrigated from them.

Public, domestic and stock use - Wells in sands of the Mount Selman formation furnish the public water supplies of Pleasanton, Coughran and Christine. The total average consumption by the three towns does not exceed 80,000 gallons a day, according to estimates by the water superintendents. Many wells in sands of the Mount Selman formation are used for domestic purposes and stock in the central and south-central part of the county, but the total actual consumption for these purposes is not large.

Waste of water - In May 1944 the discharge of 22 flowing wells in sands of the Mount Selman formation was measured. The flow of the wells ranged from less than a gallon a minute to as much as 100 gallons a minute. The total discharge of the 22 wells amounted to 714 gallons a minute (about a million gallons a day). Of this amount it is estimated that about 420 gallons a minute (0.6 million gallons a day) is largely wasted.

Quality of water - The table of analyses, page 52 gives the results of determinations of the amount of iron, bicarbonate, sulfate, chloride, and total hardness present in the water from 29 wells and more complete analyses of water from 11 other wells in sands of the Mount Selman formation.

#### Cook Mountain, Yegua and Jackson formations

Wells in the Cook Mountain, Yegua, and Jackson formations furnish water for domestic purposes and stock in the central and southern parts of the county. The total withdrawal of ground water from these formations in Atascosa County is relatively small. In 1944 the water levels were measured in a few of the wells and samples of water were obtained from a few of them.

#### SUMMARY

The total withdrawal of ground water in Atascosa County from the Carrizo sand, the principal aquifer, increased from about 9,500 acre-feet a year (8.5 million gallons a day) in 1929-30 to about 15,500 acre-feet a year (13.8 million gallons a day in 1944-45). The amount used for irrigation increased during the period from 3,200 acre-feet a year (2.9 million gallons a day) to 7,900 acre-feet a year (7.0 million gallons a day). The total annual waste of water, in 1944-45, 6,500 acre-feet (5.8 million gallons a day) was about the same as it was in 1929-30. The average waste from the individual wells was less in 1944-45 but the number of wells showing a waste was greater.

The increase in total withdrawals from the formation has been accompanied by a general decline in artesian head, the net decline between 1929-30 and 1944 ranging from 3 to 25 feet. It appears probable that equilibrium has not yet been reached and some further decline is to be expected if the present rate of withdrawals is maintained. If the rate of withdrawals is increased the present rate of decline will be accelerated. This will cause additional wells to cease flowing and may lower the water levels in some of the wells that are equipped with centrifugal pumps to such an extent that the pumps will not deliver water.

On the whole, the evidence tends to show that the artesian reservoir is not being overdrawn and that it will sustain a somewhat greater draft without serious depletion. Further observations, which it is expected will be made should throw additional light on this question.

If the present waste of water from wells in the Carrizo were stopped the present consumption of water for all useful purposes could be increased about 70 percent without increasing the draft on the underground reservoir. Every man who has a flowing well or pumping plant should realize that he and his neighbor--in fact, the whole community--are drawing from a common reservoir and that any depletion of this reservoir is suffered by all.

The discharge of ground water from flowing wells in the Mount Selman formation amounts to about 1,100 acre-feet a year the equivalent of about one million gallons a day. The water pumped from wells which do not flow does not add materially to this figure. The decline of artesian head in wells in the formation since 1929-30 has been comparatively great. This indicates that the formation cannot be expected to yield very large quantities of water. Some water is wasted from Mount Selman wells but the waste is comparatively small.

The total withdrawal of ground water from the Cook Mountain, Yegua and Jackson formations in Atascosa County is relatively small.

ADDENDUM

May 1, 1946

During field operations in April 1946, measurements of water levels or shut-in pressures were repeated in 20 of the Carrizo wells listed in the table on page 5. Results of these measurements are shown below:

Artesian head (shown by water level or shut-in pressures) in wells in the Carrizo sand in Atascosa County, Texas, in April 1946; the net decline from 1929-30 to April 1946; and the net decline or rise from May-June 1944 to April 1946.

Well	Artesian head in feet above (+) or below (-) land surface April 1946	Net decline in feet 1929-30 to April, 1946	Net decline (-) or rise (+) in feet May or June 1944 to April 1946
164	+ 5.8	11.2	-1.4
165	-39.2	4.7	-1.1
168	-100.5	10.5	-0.9
169	-79.8	10.8	-3.6
177	0.0	5.0	-2.0
179	+ 6.1	17.9	-1.9
187	-44.5	12.5	-1.7
188	-30.4	18.4	+0.2
196	-10.3	13.3	-1.4
197	+ 7.3	15.7	-0.2
203	- 0.7	5.7	-0.5
209	-31.8	3.8	+3.8
213	-21.3	16.3	-2.0
214	-33.6	8.6	-1.2
218	+15.3	14.7	+1.3
224	- 4.9	13.9	-0.7
226	- 3.3	18.3	-3.8
246	-25.8	13.8	-3.0
299	-37.5	10.0	-1.1
357	-70.2	10.2	-2.2

Most of the above wells show a net decline in water levels or artesian pressure since measurements were made in the corresponding season in 1944, the amount of the decline ranging from 0.2 foot to 3.8 feet and averaging 1.7 feet. Three of the wells, Nos. 188, 209, and 218, show a net rise amounting to 0.2 foot, 1.3 feet and 3.8 feet, respectively. The rise in two of them, Nos. 209 and 218, however, is believed to have been due to the fact that nearby wells, which were pumped in 1944, were unused in 1946.

The field work in April 1946 did not include an inventory of pumpage. It was found that several wells had been drilled to the Carrizo sand in the Jourdan-Charlotte oil field area since that area was visited in 1944, to provide water for oil well drilling. Little or no water is wasted from these wells.

It was found that a deep oil test had been drilled in 1945, in the southeastern part of the county about 4 miles northwest of Fashing. This well has a flow of about 400 gallons a minute and is believed to draw from the Carrizo sand. The flow is discharged into a nearby creek and is largely wasted.

Records of wells in Atascosa County, Texas

All wells are drilled unless otherwise noted in remarks column

Well	Distance from Poteet	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or groups of formations)
1	9 $\frac{1}{4}$ miles north	West Land Security Co.	Frank Burkett	1939	203	10, 12 $\frac{1}{2}$	Carrizo sand
2	do.	do.	---	1942	700	10, 7,5	Indio formation
3	8 $\frac{3}{4}$ miles north	R. W. Hamilton	---	1942	169	6	Carrizo sand
4	do.	do.	---	1938	169	6	do.
5	4 miles north	H. Koehler	D. Pegg	1931	450	10, 6-5/8	do.
6	do.	do.	---	Old	310	6	do.
7	4 $\frac{1}{4}$ miles northwest	Mrs. Maggie E. Forest	J. R. Johnson	1933	500	12,-	do.
8	3 $\frac{1}{4}$ miles northwest	Rudolph Stumberg	--- Craven	1938	165	6	do.
9	3 miles northwest	do.	do.	1931	265	6	do.
10	2 $\frac{1}{2}$ miles north	Joe Foster	do.	1934	550	--	do.
11	2 miles north	Mrs. -- Sutton	--	--	900 $\pm$	4	--
12	do.	do.	--	--	900 $\pm$	--	--
13	2 miles northwest	Mrs. Fine Arnold	---	1929	550	4	Carrizo sand
14	2 $\frac{1}{4}$ miles northwest	E. J. Fasler	Frank Burkett	1939	540	10, 5-7/8	do.
16	4 miles northwest	John F. Hearn	Boone and Ormand	1938	300 $\pm$	--	do.
17	4 $\frac{1}{4}$ miles northwest	John L. Denson	do.	1938	300 $\pm$	6	do.
18	do.	Everett Russel	--- Schwartz	1936	300 $\pm$	8, 6	do.
19	4 miles west	Ned Stinsen	--	1931?	--	4	do.

a/ Minus (-) indicates measuring point was below ground.

b/ Pump or lift: T, turbine; Cf, centrifugal; C, cylinder; A, air lift.

Power: E, electric; G, gasoline, oil or diesel engine; H, hand; W, windmill.

Number indicates horsepower.

Chemical analyses of water from most of these wells are shown in a table of analyses on pages 50 to 53:

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Date of measurement	Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)					1929-30, g.p.m.	Apr.-June, g.p.m.	
1	--	--	--	--	T, E <sub>1</sub>	Ind	--	--	Perforated from 130 to 149 feet. Temperature 74° F. See log.
2	1.0	-163.72	May 31, 1944	May 31, 1944	T, E	Ind	--	--	Pumping yield 400 gallons a minute. 100 feet perforated between 500 and 700
3	--	--	--	--	C, E	D, S	--	--	Casing [ ] feet. perforated from 149 to 169 feet.
4	1.5	-140.36	May 31, 1944	May 31, 1944	None	N	--	--	Casing perforated from 129 to 169
5	1.5	d/- 50 - 61.14	1931 May 31, 1944	1931 May 31, 1944	T, G	Irr	--	--	Casing [ ] feet. perforated from 410 to 450 feet.
6	--	--	--	--	C, E	D, S	--	--	
7	--	--	--	--	T, G	D, S, Irr	--	--	Perforated from 400 to 450 feet. pumping yield 600 gallons a
8	--	--	--	--	T, G	Irr	--	--	[ ] minute.
9	--	--	--	--	T, G	Irr	--	--	
10	--	--	--	--	T, G	Irr	--	--	
11	0.0	- 16.65	May 24, 1944	May 24, 1944	None	N	--	--	Ceased flowing before 1927.
12	--	--	--	--	Cf, G	D, S, Irr	--	--	Do.
13	--	--	--	--	T, G	Irr	--	--	
14	0.0	d/- 32	1939	1939	T, E, 5	D, S, Irr	--	--	Casing perforated from 520 to
16	--	--	--	--	Cf, G	Irr	--	--	[ ] 540 feet.
17	-20.0	- 8.37	June 1, 1944	June 1, 1944	Cf, G	D, S, Irr	--	--	
18	0.0	d/- 14	1936	1936	C, Cf, E, G	D, S, Irr	--	--	Casing: 8-inch to 80 feet; 6-inch to bottom; lowermost 60 feet perforated.
19	--	--	--	--	Cf, G	D, S, Irr	--	--	

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

d/ Water level reported by driller or owner.

e/ Yield estimated.

## Records of wells in Atascosa County--Continued

Well	Distance from Pctet	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
21	4 $\frac{1}{2}$ miles west	L. C. Scott	Frank Burkett	1934	460	8,6	Carrizo sand
22	4 $\frac{3}{4}$ miles west	Theo Ziegmond	do.	1926	480	8,6	do.
23	do.	T. J. Irvine	Boone and Ormand	1941	270	6,4 $\frac{1}{2}$	--
25	9 $\frac{1}{4}$ miles west	J. N. Escalera	--	--	350+	6	--
26	4 $\frac{1}{2}$ miles west	Charles Thomas	Frank Burkett	--	--	--	--
27	4 $\frac{3}{4}$ miles west	Walter F. Locke	--	1939	630	10	Carrizo sand
28	4 $\frac{1}{2}$ miles west	do.	Frank Burkett	--	498	8,6	do.
29	4 miles west	do.	do.	1938	475	8,6	do.
30	do.	do.	do.	--	--	6	--
31	4 $\frac{1}{2}$ miles west	F. Holberg	do.	1935	465	8,6	Carrizo sand
32	4 $\frac{1}{2}$ miles west	do.	do.	1932	476	8,6	do.
33	4 $\frac{1}{2}$ miles west	C. E. Simmons	do.	--	600+	8	do.
34	do.	A. E. Tutschke	Boone and Ormand	1940	521	8,6	do.
35	4 miles west	S. C. Zigmund	Frank Burkett	1926	560	6	do.
36	3 miles west	W. E. Hess	--	1930	630	4	do.
37	2 $\frac{1}{2}$ miles west	J. R. Shearrer	--	Old	--	6	--
38	do.	do.	--	1940	540	8	Carrizo sand
39	2 $\frac{3}{4}$ miles west	O. E. Haley	--	1937	600+	6,2	do.
40	2 $\frac{1}{4}$ miles west	Max Schraeder	Boone and Ormand	1936	700	6	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Date of measurement	Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)					1929-30; g.p.m.	Apr.-June 1944 g.p.m.	
21	--	--	--	--	T,G	D,S, Irr	--	--	Casing perforated from 380 to
22	--	--	--	--	T,G	D,S, Irr	--	--	Casing perforated from 400 to 480
23	--	--	--	--	Cf,G	D,S, Irr	--	--	Casing perforated from 230 to 370 feet.
25	--	--	--	--	T,G	Irr	--	--	
26	--	+		May 22, 1944	Flows	D,S	--	97	Temperature 80° F.
27	3.0	+	16.5	do.	Flows	Irr	--	200	Do.
28	1.5	+	17.0	do.	Flows	Irr	--	405	Casing perforated from 438 to 498 feet. Temperature 79° F.
29	0.0	+	7.5	do.	Flows	D,S, Irr	--	322	Casing perforated from 435 to 475 feet. Temperature 78½° F.
30	0.0	+	6.5	do.	Flows	D,Irr	--	e/ 75	
31	0.0	+		do.	Flows	Irr	--	e/ 75	Casing perforated from 425 to
32	--	--	--	--	T,G	D,S, Irr	--	--	Pump yield 300 gallons a minute. Casing perforated from 396 to 476 feet.
33	0.0	-	26.55	May 22, 1944	T,E, 7½	D,S, Irr	--	--	
34	0.2	-	10.75	May 30, 1944	Cf,G	D,S, Irr	--	--	Casing perforated from 421 to
35	--	--	--	--	Cf,E, 7½	D,S, Irr	--	--	Pump yield 500 gallons a minute. Casing perforated from 480 to
36	0.0	+	15.3	May 30, 1944	None	D,S, Irr	--	e/ 200	560 feet.
37	0.4	-	40.12	May 29, 1944	C,E, ¼	D,S	--	--	Formerly flowed.
38	0.4	+	0.40	do.	Flows Cf,E,5	D,S, Irr	--	49	
39	0.0		0.00	May 23, 1944	Cf,G Flows	Irr	--	1	
40	0.0	+		do.	Flows Cf,G	D,S, Irr	--	130	Casing perforated from 660 to 700 feet. Temperature 79° F.

Records of wells in Atascosa County--Continued

Well	Distance from Poteet	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
41	3½ miles southwest	H. D. Barrow	--	--	--	6	Carrizo sand
42	1¼ miles west	Rev. Jose C. Cabrena	Boone and Ormand	--	775	8,6	do.
43	1½ miles west	W. J. Parker	do.	1935	764	8,6	do.
44	1 mile west	Louis Hooge	--	1938	--	6	do.
46	1 mile northwest	Mrs. W. H. Slimm	Boone and Ormand	1943	807	8-5/8, 6-5/8	do.
47	do.	R. F. Robbins and D. G. Gordon	--	1932	540	6	do.
48	¾ mile east	M. Ernst	Boone and Ormand	1928	850	5-3/8	do.
49	1 mile east	D. E. Shearrer	--	--	--	--	--
50	1½ miles southeast	W. B. Etheridge	--	--	--	8	--
51	1¼ miles southeast	do.	--	1938	950+	6	Carrizo sand
52	2 miles southeast	Garcia Bros.	--	1923	950	4	do.
53	2½ miles southeast	E. H. Shearrer	--	--	--	6	do.
54	5¼ miles south	C. P. Parker	M. Thierry	1944	1,458	6	do.
55	5 miles southeast	Simon Rodriguez	Boone and Ormand	--	1,405	8,6 4½	do.
56	5½ miles southeast	C. P. Carter	--	--	1,90+	8,3	Indio formation and Carrizo sand
57	5½ miles southeast	W. R. Tagart	Boone and Ormand	1937	1,50	8	Carrizo sand
58	3 miles southeast	J. H. Rogers	Frank Cook	1935	1,000+	6	do.
59	3¼ miles southeast	do.	--	1939	1,080	6	do.
60	3 miles southeast	A. F. Aigner	--	1934	1,070	6	do.
61	2¾ miles southeast	Cyril Hooge	-- Gillam	1925	1,010	6	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
41	0.0	+	May 23, 1944	Flows	D,S, Irr	--	e/150	Temperature 81° F.
42	0.0	+	do.	Flows	D,S, Irr	--	256	Casing perforated from 735 to
43	0.0	d/- 20	1942	T,G	D,S, Irr	--	--	Cas- 775 feet. ing perforated from 684 to 764
44	1.0	- 11.22	May 29, 1944	Cf,G	Irr	--	--	feet.
46	0.0	d/- 29	--	T,G	Irr	--	--	Casing perforated from 707 to
47	--	--	--	T,G	D,S, Irr	--	--	807 feet.
48	--	--	--	Cf,G	Irr	--	--	Cased to 765 feet.
49	2.0	+ 7.75	Apr. 25, 1944	Flows Cf,G	Irr	--	30	
50	0.0	+	May 24, 1944	Flows	S,Irr	--	97	Temperature 83° F.
51	0.0	+	do.	Flows	Irr	--	--	
52	0.0	+	do.	Flows	Irr	--	e/ 75	Temperature 84° F.
53	2.0	+ 34.0	May 12, 1944	Flows	S,Irr	--	247	Temperature 85° F.
54	0.0	+	May 9, 1944	Flows	Irr	--	335	Casing perforated from 1,250 to 1,458 feet. Temperature 90° F. See log.
55	2.0	+ 15.4	do.	Flows	D,S, Irr	--	e/ 75	Casing perforated from 1,257 to 1,385 feet. Temperature 89° F.
56	0.0	d/- 11	1944	Cf,G	D,S, Irr	--	--	See log.
57	2.5	+ 18.1	May 9, 1944	Flows	D,S, Irr	--	87	
58	0.0	+	May 12, 1944	Flows	D,S, Irr	--	250	Temperature 86½° F.
59	3.5	+ 12.0	do.	Flows	Irr	--	175	
60	--	--	--	Cf G	D,S, Irr	--	--	Casing perforated from 1,010 to 1,070 feet. Formerly flowed: stopped flowing in 1939 or 1940.
61	2.0	d/+ 26	Jan. 1, 1925	Flows	D	--	5	Cased to 850 feet.
		+ 2.65	May 8, 1944					

Records of wells in Atascosa County--Continued

Well	Distance from Poteet	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
62	2 $\frac{3}{4}$ miles southeast	Cyril Hooge	-- Pegg	1937	1,090	8	Carrizo sand
63	3 $\frac{1}{4}$ miles southeast	I. Rakowitz	--	1932	1 160	6	do.
64	3 $\frac{1}{4}$ miles east	do.	--	1925	1,051	6	do.
65	3 $\frac{1}{2}$ miles east	Ben Rakowitz	Boone and Ormand	1934	1,070	6,5	do.
66	2 $\frac{1}{4}$ miles east	Pancho Briones	--	1943	1,000+	8	do.
67	2 miles east	H. A. Jaroszewski	--	1936	700	4	--
68	2 $\frac{1}{2}$ miles east	--	--	--	--	6	--
69	3 $\frac{1}{2}$ miles east	T. O. Rakowitz	Jake Wolf	1932	1,000	6-5/8	Carrizo sand
70	4 miles east	J. E. Jasik	do.	1935	1,009	8, 6-5/8	do.
72	7 $\frac{3}{4}$ miles northeast	G. Weynand	--	--	120+	5	do.
73	6 miles east	Dan McKenzie	W.R. Cavender	1942	320	6-5/8	--
74	6 $\frac{3}{4}$ miles east	J. Garza and Son	--	1940	287	8	--
75	do.	Oscar Persyn	-- Hickman	1939	1,100	8,5	Carrizo sand
Distance from Pleasanton							
76	1 $\frac{1}{2}$ miles north	Mrs. W. Campbell	Tom Draper	1931	1,200+	4	do.
77	1 $\frac{1}{4}$ miles north	Missouri Pacific Railway Co.	--	1928	1,550+	8	do.
78	1 $\frac{1}{2}$ miles west	O. P. Leonard	-- Schwartz	--	701	6,4	Mt. Selman formation
79	10 $\frac{3}{4}$ miles south	E. G. Hendricks	Boone and Ormand	1943	1,325	4	(post-Bigford)

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Date of measurement	Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	LEVEL				1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
62	1.3	+ 3.21		May 8, 1944	Flows Cf, G	D, S, Irr	--	e/ 30	Casing perforated from 1,050 to 1,09 feet. Pumping yield 450 gallons a minute. Temperature 85° F.
63	1.0	+ 4.0		May 12, 1944	Flows Cf, G	S, Irr	--	120	Casing perforated from 1,010 to 1,160 feet. Pumping yield 300 gallons a minute. Temperature 85° F.
64	1.5	+		do.	Flows	Irr	--	120	Cased to 700 feet. Temperature 85° F.
65	3.5	+		do.	Flows	S, Irr	--	174	Temperature 84° F.
66	0.5	-17.51		do.	Cf, G	Irr	--	--	
67	0.0	-		do.	A, G	D, S, Irr	--	--	
68	1.4	-56.59		June 5, 1944	C, -	N	--	--	
69	0.0	d/-10		May 1944	Cf, -	Irr	--	--	
70	0.0	+ 0.00		May 12, 1944	Flows Cf, E	D, S, Irr	--	1	Casing: 8-inch to 100 feet; 6-5/8-inch from 100 to 1,009 feet.
72	0.0	-81.89		June 5, 1944	C, G	S	--	--	
73	1.0	-47.21		do.	C, W	S	--	--	Casing perforated from 270 to 320 feet.
74	--	--		--	Cf, G	Irr	--	--	
75	0.0	+ 0.85		June 5, 1944	Flows Cf, G	D, S, Irr	--	e/150	Casing perforated at 860-900 and 1,060-1,100 feet.
76	3.0	+37		June 5, 1944	Flows	D, S	--	92	
77	2.5	+69		May 9, 1944	Flows	P, Ind	--	233	Supplies North Pleasanton and locomotives. Drilled to re-place well 244. Temperature 92° F.
78	1.5	- 0.5		June 3, 1944	C, E	D, S	--	--	
79	0.0	+		May 17, 1944	Flows	D, S, Irr	--	e/100	Temperature 92° F.

Records of wells in Atascosa County--Continued

Well	Distance from Pleasanton	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
80	10 $\frac{3}{4}$ miles south	Clyant Smith	--	Old	285+	4	--
81	4 $\frac{1}{2}$ miles south	M. L. Thompson	Paul Draper	1935	1,600+	5	Carrizo sand
82	4 $\frac{1}{2}$ miles south	Humble Oil and Refining Co. No.1	A. H. Masiran	1942	640	7	Mt. Selman formation (post-Bigford)
83	2 $\frac{3}{4}$ miles southeast	Roy Quillian	Humble Oil and Refining Co.	1939	2,060	4	Carrizo sand
84	7 $\frac{3}{4}$ miles southeast	C. L. Downey	--	1940	1,000	6	Mt. Selman formation (post-Bigford)
85	2 $\frac{3}{4}$ miles southeast	S. L. Batchelor	Boone and Ormand	1941	1,943	6,4	Carrizo sand
86	1 $\frac{3}{4}$ miles southeast	Joe K. Williams	Tom Draper	1930	1,750	5-3/16, 3 $\frac{1}{2}$	do.
87	3 $\frac{1}{2}$ miles east	C. D. Hammons	--	--	400+	--	Mt. Selman forma- (post-Bigford)
88	3 $\frac{1}{4}$ miles east	Dr. A. C. Hunter	Boone and Ormand	1937	600	6	do.
89	do.	F. DeBarros	--	--	700+	6	do.
90	do.	do.	--	--	700+	6	do.
91	4 $\frac{1}{2}$ miles northeast	Guy S. Combs	--	--	--	6	--
92	5 $\frac{1}{2}$ miles east	Roscoe Pegg	--	--	--	4	--
93	do.	Mrs. Ola Richardson	--	--	1,100+	6	Mt. Selman (post-Bigford)
94	5 miles east	E. H. Marek	--	--	1,200	6	do.
95	4 $\frac{3}{4}$ miles east	Oscar Kreitz	-- Brown	1929	900	6	do.
96	do.	L. D. Haag	--	1930	906	10	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Date of measurement	Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)					1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
80	0.0	+		May 17, 1944	Flows	D,S	--	2½	Temperature 78½° F.
81	0.0	+		May 18, 1944	Flows	D,S, Irr	--	30	Temperature 90½° F.
82	0.0	d/-20		1942	A,G	Ind	--	--	M.L.Thompson lease. Casing perforated at 596-614 and 620-640 feet. See log.
83	2.5	+11.3		May 18, 1944	Flows Cf,G	S	--	--	Casing 10g. perforated from 2,015 to 2,066 feet. Temperature 95½° F.
84	4.0	+12.0		do.	Flows	D,S	--	24	Casing perforated from 940 to 1,000 feet. Temperature 86° F.
85	2.0	+36		May 9, 1944	Flows	D,S, Irr	--	217	Casing: 6-inch to 1,033 feet; 4-inch from 1,017 to 1,943 feet; 103 feet perforated. Temperature 98° F. See log.
86	3.0	+38		do.	Flows	D,S, Irr	--	151	Casing: 5-3/16-inch to 1,150 feet; 5½-inch from 1,150 to 1,750 feet; 80 feet perforated. Temperature 95½° F.
87	0.0	+		1944	Flows	D,S, Irr	--	--	
88	0.0	+		May 18, 1944	Flows	D,S, Irr	--	--	Cased to about 350 feet. Temperature 78° F.
89	0.0	+		do.	Flows	D,Irr	--	33	Cased to 525 feet. Temperature 77° F.
90	0.0	+		do.	Flows	D,S, Irr	--	e/ 50	
91	2.0	-22.34		May 10, 1944	C,H	D,S	--	--	Flowed until about 1934.
92	1.0	+ 2.97		do.	Flows	D,S, Irr	--	e/ 10	Temperature 85° F.
93	0.0	+		do.	Flows	D,S, Irr	--	32	Do.
94	2.4	-19.89		do.	A,G	D,S, Irr	--	--	
95	0.0	+ 9.85		do.	Flows C,E	D,S, Irr	--	46	
96	0.0	+		do.	Flows	D,S, Irr	--	--	

Records of wells in Atascosa County--Continued

Well	Distance from Pleasanton	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
97	6 $\frac{1}{4}$ miles east	M. S. Coughran	George Brown	1928	700±	4	Mt.Selman formation
98	8 $\frac{1}{4}$ miles east	M. F. Flores	Boone and Ormand	1943	2,010	6,4,2	Carrizo sand
99	7 $\frac{1}{2}$ miles east	Ralph Coughran	George Brown	1908	550±	4	Mt.Selman formation
100	7 miles east	Joe A. Coughran	do.	1912	600±	4 $\frac{1}{2}$	do.
101	6 $\frac{3}{4}$ miles east	F. M. McCarty	--	1938	--	6	Carrizo sand
102	10 $\frac{1}{4}$ miles east	--	--	--	1,000±	4	Mt.Selman formation
103	12 $\frac{3}{4}$ miles east	--	--	--	--	6- 7/8	--

Distance from Campbellton

104	11 $\frac{1}{2}$ miles north	--	--	Old	--	4	--
105	9 $\frac{1}{2}$ miles north	E. A. Kinsel	-- Palacios	--	--	4 $\frac{1}{2}$	--
106	9 miles north	do.	--	1937	1,300±	4 $\frac{1}{8}$	Mt.Selman formation
107	7 $\frac{3}{4}$ miles north	T. W. Smith	--	Old	350	4 $\frac{3}{4}$	--
108	8 $\frac{3}{4}$ miles east	Felix Henke	--	--	250	4	--
109	8 $\frac{1}{2}$ miles east	do.	--	--	765	4	Yegua formation
110	8 $\frac{1}{4}$ miles east	do.	--	1941	800±	--	--
111	6 miles east	H. R. Smith and J. E. Mowinkle	--	1932	4,168	7,5- 3/16	Carrizo sand
112	3 $\frac{3}{4}$ miles east	do.	--	1934	4,200	7,5- 3/16	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
97	0.0	+	May 18, 1944	Flows	D,S	--	--	
98	1.5	+61	May 10, 1944	Flows	D,S, Irr	--	36	Casing: 6-inch to 70 feet; 4-inch to 1,060 feet; 2-inch to 2,010 feet; 80 feet perforated. Temperature 102°
99	0.0	+	May 18, 1944	Flows C,W	D,S	--	17	Temperature 83° F.
100	1.8	-18.39	do.	Cf,E	D,S	--	--	Flowed about 20 years ago.
101	1.0	+52	May 10, 1944	Flows C,G	D,S, Irr	--	221	Temperature 93½° F.
102	6.3	+ 4.0	do.	Flows C,G	D,S	--	7	Temperature 85° F.
103	--	+10.5	Apr. 24, 1944	Flows	S	--	60	Oil test. Temperature 93° F.
104	0.0	+	May 16, 1944	Flows	S	--	2½	Temperature 80° F.
105	1.0	-45.56	do.	C,W	S	--	--	
106	0.0	+ 1	do.	Flows	S	--	1- 1/3	Temperature 85½° F.
107	1 5	-21.50	do.	C,W	D,S	--	--	Flowed until about 1900.
108	--	--	--	C,W	S	--	--	
109	--	96	--	C,W	S	--	--	
110	--	--	--	C,W	S	--	--	Converted oil test. See log.
111	2.0	+75	May 17, 1944	Flows	D,S, Irr	--	e/400	Casing: 7-inch to 3,940 feet; 5-3/16-inch from 3,912 to 4,168 feet. Reported flow 583 gallons a minute in winter when drilled. Temperature 147° F.
112	0.0	+	do.	Flows	D,S, Irr	--	e/200	Casing: 7-inch to 3,940 feet; 5-3/16-inch from 3,940 to 4,196 feet. Water also used to heat houses. See log. Temperature 143° F.

Records of wells in Atascosa County--Continued.

Well	Distance from Campbellton	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
113	7 miles northwest	J. D. Harrison	--	--	1,600±	4	Mt. Selman formation
114	3 miles northwest	Harrison and Abercrombie	--	1931	3,600±	8	--
115	do.	do.	--	1931	3,600±	6	--

Distance from Charlotte

116	2 $\frac{3}{4}$ miles east	R. B. Whipple	--	1928	842	--	Mt. Selman formation
117	2 $\frac{1}{4}$ miles west	Humble Oil and Refining Co.	Humble Oil and Refining Co.	1944	1,520	9- 5/8	Carrizo sand
118	2 miles west	E. J. Pruitt	Boone and Ormand	1943	548	4	Mt. Selman formation
119	do.	do.	do.	1944	1,054	4	--
120	4 $\frac{1}{2}$ miles southwest	M. M. Davis	Humble Oil and Refining Co.	1940	--	--	Carrizo sand
121	12 miles south	Lee Minten	--	--	--	--	--
122	11 $\frac{1}{4}$ miles south	M. B. Hughey	--	1933	1,012	4	Mt. Selman formation
123	13 $\frac{1}{8}$ miles south	do.	--	1933	860	8	do.

a/ Minus (-) indicates measuring point was below ground.

b/ Pump or lift: T, turbine; Cf, centrifugal; C, cylinder; A, air lift.

Power: E, electric; G, gasoline, oil or diesel engine; H, hand; W, windmill.

Number indicates horsepower.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Date of measurement	Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)					1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
113	0.0	+		May 16, 1944	Flows	D,S	--	40	Temperature 102° F.
114	4.0	+36.5		May 25, 1944	Flows	S	--	--	Over flow from lake fed by this well and well 115, measured at 112 gallons a minute. Temperature 109½° F.
115	0.0	+		do.	Flows	D	--	--	
116	--	--		--	C,G	D,S	--	--	
117	3.8	+40.5		May 11, 1944	Flows	S,Ind	--	198	Converted oil test on E. J. Pruitt lease. Casing perforated from 1,470 to 1,520 feet. Temperature 97° F.
118	--	--		--	None	N	--	--	Casing pulled. See log.
119	--	--		--	None	N	--	--	Well never used. Casing pulled. See log.
120	--	--		--	None	N	--	--	Plugged core test. Strong flow reported from Carrizo sand at 1,500-2,250 feet.
121	0.0	+		June 3, 1944	Flows	D,S	--	--	
122	1.5	-14.59		do.	C,W	D,S	--	--	Casing perforated from 952 to 1,012 feet.
123	7.0	+16.5		do.	Flows	D,S	--	10	Casing perforated from 820 to 860 feet.

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

d/ Water level reported by driller or owner.

e/ Yield estimated.

Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
160	Rossville, 3 $\frac{1}{4}$ miles north of	C. E. Dillon	--	--	136	4	Carrizo sand
161	Rossville, 2 $\frac{1}{2}$ miles north of	G. W. Beachman	--	--	125	4 $\frac{1}{2}$	do.
162	Rossville, 4 miles west of	A. Cortinas	Rio Bravo Oil Co.	--	4,080	8,6,4	--
163	Rossville, 5 $\frac{1}{2}$ miles northwest of	Mrs. Elsie Heberer	T. Byram	1927	380	6	Carrizo sand
164	Rossville, 6 miles southwest of	R. Ross	do.	1926	420	6	do.
165	Rossville, 2 $\frac{1}{4}$ miles southwest of	H.E. Whittet	H. E. Whittet	1910	250	4	do.
166	Poteet, 8 $\frac{1}{2}$ miles north of	R.W. Hamilton	--	1926	175	6	do.
167	Poteet, 7 $\frac{1}{2}$ miles north of	Osborne Gravel Co.	Osborne Gravel Co.	1928	187	4	do.
168	Poteet, 5 $\frac{1}{2}$ miles north of	Guy A. Bryan	--	--	120	4	do.
169	Leming, 4 miles north of	R. L. Bruce	--	1925	104	4	do.
170	do.	Schultze Bros.	--	1922	76	5	do.
171	Leming, $\frac{3}{4}$ mile north of	Van McKenzie	--	--	70	4	Mt. Selman formation
172	do.	Dan McKenzie	--	--	66	5	do.
174	Pleasanton, 10 miles northeast of	C. A. Moehrig	--	--	455	4 $\frac{1}{2}$	do.
175	Rossville, 5 miles south of	J. N. Escalera	T. Byram	1930	653	6,5	Carrizo sand
176	Rossville, 4 $\frac{1}{2}$ miles south of	-- Terrel	do.	1926	620	5 $\frac{1}{2}$	do.
177	do.	do.	do.	1928	640	6	do.
178	Rossville, 5 $\frac{1}{2}$ miles south of	Bud McDonald	do.	1928	707	6	do.
179	Rossville, 6 miles south of	J. Cumpian	do.	1927	578	6,4	do.

a/ Minus (-) indicates measuring point was below ground.

b/ Pump or lift: T, turbine; Cf, centrifugal; C, cylinder; A, air lift.

Power: E, electric; G, gasoline, oil or diesel engine; H, hand; W, windmill.

Number indicates horsepower.

Records for wells 160 through 343 from Water-Supply Paper 676 and supplemented in many instances with data obtained in 1944.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
160	0.0	-108	1929-30	C,W	D,S	--	--	
161	.3	-105	1929-30	C,G	D,S	--	--	
162	--	--	--	--	--	--	--	Oil test. See log.
163	.0	+ 12	1929-30	Flows	S	80	e/ 30	Water also at 180 feet.
		+	June 2, 1944					
164	.0	+ 17	1929-30	Flows	S	--	1	
	5.3	+ 1.9	June 2, 1944					
165	.3	- 34.8	1929-30	C,W	D,S	--	--	
		- 38.4	June 2, 1944					
166	.0	-140	1929-30	C,E	D,S	--	--	Temperature 73° F.
167	.0	-142	1929-30	None	N	--	--	
168	1.0	- 91	1929-30	C,W	D,S	--	--	
		-100.6	May 31, 1944					
169	.0	- 69	1929-30	C,W	S	--	--	Lignite reported at 60 feet.
	1.3	- 77.5	June 5, 1944					
170	.0	- 28	1929-30	C,W	D,S	--	--	Lignite reported at 38 feet.
171	.0	- 40	1929-30	C,G	D	--	--	
172	--	--	--	C,G	D,S	--	--	
174	.0	- 82	1929-30	C,W	D,S	--	--	
175	--	--	--	C,W	D,S	--	--	Flowed when drilled.
176	.0	+ 12	1929-30	Cf,-	N	150	None	
177	.0	+ 5	1929-30	Flows	D,S	25	6	
		+ 2	May 23, 1944					
178	.0	+ 11	1929-30	Flows	D,S, Irr	50	e/ 5	
		+	June 4, 1944					
179	.0	+ 18	1929-30	Flows	D,S, Irr	100	e/ 20	
		+ 2	May 23, 1944	T,G				

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

d/ Water level reported by driller or owner.

e/ Yield estimated.

## Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
180	Rossville, $5\frac{1}{2}$ miles south of	T. Byram	T. Byram	1926	558	5	Carrizo sand
181	Rossville, $4\frac{1}{2}$ miles south of	do.	do.	1927	620	6	--
182	Rossville, $3\frac{1}{2}$ miles south of	W. W. Farran	do.	1927	680	$6,4\frac{1}{2}$	Carrizo sand
183	Rossville, 3 miles south of	A. N. Simmons	do.	1926	468	6	do.
184	do.	E. Layer	--	1924	535	10	do.
185	Rossville, $2\frac{1}{2}$ miles southeast of	L. S. Martinez	T. Byram	1927	560	6	do.
186	Poteet, $3\frac{1}{2}$ miles northwest of	August Mann	do.	1924	422	8	do.
187	Poteet, 3 miles northwest of	Dan Reed	J. Wolfe	--	666	10	do.
188	do.	do.	do.	--	525	4	do.
189	Poteet, $4\frac{1}{2}$ miles west of	Felix Mikolajczyk	--	--	380	8	do.
190	do.	do.	--	--	380	--	do.
191	do.	E. B. Neiswanger	--	1928	900+	8,6	--
192	Poteet, $3\frac{1}{2}$ miles west of	-- Mullins	--	1915	714	6	Carrizo sand
193	Poteet, 4 miles west of	C. E. Simmons	--	1928	627	--	do.
194	Poteet, $3\frac{3}{4}$ miles west of	S. C. Zigmond	--	1914	707	6	do.
195	Poteet, $3\frac{1}{2}$ miles west of	Felix Mikolajczyk	H. T. Mumme	1926	715	8,6	do.
196	Poteet, $3\frac{3}{4}$ miles west of	F. Holberg	--	1914	600	6	do.
197	do.	Walter F. Locke	--	1914	600	6	do.
198	Poteet, $2\frac{1}{4}$ miles west of	G. Jambers	G. P. Rainery	1911	1,000	8	do.
199	Poteet, 2 miles west of	T. Lozana	-- Holder	1924	--	6	do.
200	Poteet, $2\frac{1}{2}$ miles west of	O. E. Haley	H. T. Mumme	1909	600	6	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
180	.0	+ 37	1929-30	Flows	S	350	$\frac{1}{4}$	
		+	May 23, 1944					
181	.0	+ 9	1929-30	T,E	D,S, Irr	120	None	Well repaired and now also draws water from higher sands.
182	.0	+ 10	1929-30	Flows	S	--	--	Well tapped below ground surface to allow it to flow into
		- 6	1944					
183	.0	- 18	1929-30	T,G	D,S, Irr	--	--	earth tank
184	.0	- 12	1929-30	Cf,G	D,S, Irr	--	--	
185	0.0	- 57	1929-30	T,G	D,S, Irr	--	--	
186	.0	- 22	1929-30	T,G	Irr	--	--	
187	.0	- 32	1929-30	None	N	--	--	
		- 42.9	June 1, 1944					
188	.5	- 12.5	1929-30	None	N	--	--	
		- 31.1	June 1, 1944					
189	-12.4	- .3	May 30, 1944	Cf,G	D,S, Irr	--	--	
190	--	--	--	Cf,G	D,S, Irr	--	--	
191	.0	d/- 14	1943	Cf,G	D,S, Irr	--	--	
192	.0	- 10	1929-30	Cf,G	D,S, Irr	--	--	
193	.0	- 13	1929-30	Cf,G	Irr	--	--	
194	.0	- 1	1929-30	None	N	--	--	Caved. Abandoned.
195	.0	- 5	1929-30	T,G	D,S, Irr	--	--	
196	2.0	+ 1	1929-30	A,G	Irr	--	--	
		- 10.9	May 22, 1944					
197	.0	+ 23	1929-30	Flows	Irr	350	135	Temperature 78° F.
		+ 7.5	May 22, 1944					
198	--	--	--	T,G	Irr	--	--	
199	--	--	--	Cf,E	D,S	--	--	
200	.0	+ 1	1929-30	None	N	5	None	Formerly flowed 250 gallons a minute.

Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
201	Poteet, $2\frac{1}{2}$ miles southwest of	J. W. Willborn	T. Byram	1929	642	6,4 $\frac{1}{2}$	Garrize sand
202	Poteet, $1\frac{1}{2}$ miles northwest of	W. C. Church	G. Gilland	1926	1,040	8,6	do.
203	Poteet, $1\frac{1}{2}$ miles north of	H. Wharton	do.	1925	600	6	do.
204	Poteet, 1 mile north of	C. E. Hurley	--	1926	918	6	do.
205	do.	J. N. Donaho	G. Gilland	1926	881	4,6	do.
206	Poteet, north edge of	J. M. Chittim Est.	--	1904	850	8	do.
207	Poteet, $\frac{3}{4}$ mile northwest of	Mrs. W. H. Slimm	--	--	--	6	do.
208	Poteet, 1 mile west of	Louis Hooge	--	1910	840	6	do.
209	Poteet, $\frac{1}{2}$ mile northwest of	J. Ward	--	--	--	4,6	do.
210	Poteet, $\frac{1}{2}$ mile north of	C. A. Reed	--	1911	--	4,8	do.
211	Poteet, $\frac{3}{4}$ mile north of	S. Hughes	T. Byram	1928	720	6	do.
212	do.	H. L. Ulbrich	-- Brown	1926	800	4	do.
213	Poteet, $2\frac{1}{2}$ miles northeast of	Morris Stern	--	--	850	6	do.
214	Poteet, 1 mile northeast of	J. V. Gates	--	--	--	8	do.
215	Poteet, northwest edge of	W. J. Hallmark et al.	--	--	--	8	do.
216	In Poteet	J. M. Chittim Est.	H. T. Mumme	1910	840	6	do.
217	do.	do.	do.	1912	840	6	do.
218	do.	City of Poteet	J. Wolfe	1928	835	6	do.
219	Poteet, south edge of	J. M. Chittim Est.	H. T. Mumme	1917	840	6	do.
220	Poteet, $\frac{1}{4}$ mile south of	do.	do.	1909	840	4 $\frac{1}{2}$	do.
221	Poteet, $\frac{3}{4}$ mile south of	S. Blount	G. Gilland	1926	--	6	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
201	.0	+ 15	1929-30	Flows	D,S, Irr	250	125	Temperature 79° F.
		+ d/- 37	May 23, 1944					
202	.0	- 27.8	1929-30	T,G	D,S, P,Irr	--	--	
		d/- 37	1942					
203	1.2	+ 3.8	1929-30	Cf,G	D,S, Irr	50	None	
		- 1.4	May 24, 1944					
204	.0	+ 1	1929-30	Cf,-	Irr	10	None	
205	.0	+ 28	1939-30	Flows	D,S	250	225	Temperature 79° F.
		+ 9	1943					
206	.0	- 5	1929-30	Cf,E	D,S, Irr	--	--	Originally flowed 216 gallons a minute. Temperature 80°CT
207	2.0	- 31.6	May 29, 1944	C,W	D,S	--	--	Formerly flowed.
208	--	--	--	None	N	--	--	
209	1.0	- 29	1929-30	C,H	N	--	--	
		- 36.6	June 1, 1944					
210	.0	+ 5	1929-30	Cf,G	D,S, Irr	50	None	Original head +30 feet.
211	.0	+ 1	1929-30	Cf,G	Irr	--	--	
	-6.0	- 3.0	May 24, 1944					
212	.0	+ 5	1929-30	None	N	--	--	Abandoned.
213	0.5	- 5.5	1929-30	C,W	S	--	--	
		- 19.8	June 5, 1944					
214	.8	- 25	1929-30	C,W	S	--	--	
		- 33.2	May 12, 1944					
215	.0	+ 6	1929-30	Cf,E	D,S, Irr	100	None	
		- 2.5	June 1, 1944					
216	.0	+ 20	1929-30	None	N	250	None	
217	.0	+ 28	1929-30	None	N	--	--	Abandoned.
218	2.0	+ 28	1929-30	Flows	F	50	--	
		+ 12	Apr. 25, 1944	Cf,E				
219	.0	+ 20	1929-30	Flows	Irr	500	e/ 75	
220	.0	+ 10	1929-30	Flows	Irr	50	5	
		+ 1944	May 23, 1944					
221	.0	+ 42	1929-30	Flows	D,S, Irr	350	130	
		+ 1944	May 23, 1944					

Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Geologic horizon (Formation or group of formations)
222	Poteet, south- east part of	M. Ernst	--	1910	840	6	Carrizo sand
223	do.	W. M. Smelley	--	1927	927	4	do.
224	do.	F. G. Williams	H. T. Mumme	1914	840	4	do.
225	Poteet, $\frac{1}{2}$ mile east of	M. Myers	--	1911	--	6,4	do.
226	Poteet, $\frac{1}{2}$ mile southeast of	J. H. Hildreth et al.	--	1911	--	6	do.
227	Poteet, 1 mile south of	Dr. --- Albright	--	1925	--	6	do.
228	Poteet, $1\frac{1}{2}$ miles south of	James Lang	G. Gilland	1926	--	6	do.
229	Poteet, $\frac{3}{4}$ mile east of	C. L. Spence	--	--	840	6	do.
230	do.	E. A. Gomez	--	--	1,000	6,4	do.
231	do.	W.B. Etheridge	--	--	934	8,6	do.
232	Poteet, $2\frac{1}{2}$ miles southeast of	J. A. Burger	I. U. Bettison	1912	1,245	8,6	do.
233	Poteet, 2 miles southeast of	--	--	--	--	--	do.
234	Poteet, $1\frac{3}{4}$ miles southeast of	E. H. Shearrer	--	--	1,001	4	do.
235	Poteet, 2 miles southeast of	Joe Granado	--	--	990	6	do.
236	Poteet, 3 miles southeast of	I. R. Adams	--	--	1,000	6	do.
237	Poteet, 1 mile north of	-- Kinchen	--	1926	--	--	do.
238	Poteet, $\frac{1}{2}$ mile southeast of	W.B. Etheridge	--	--	1,080	8	do.
239	Leming, $1\frac{3}{4}$ miles southeast of	Oscar Persyn	Leming Oil and Refining Co.	--	2,600?	8	do.
240	do.	do.	--	--	300	5	Carrizo (?) sand
241	Pleasanton, $1\frac{1}{2}$ miles north of	E. R. Breaker	Evans et al.	1911	1,925	8,4	Carrizo sand

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
222	--	+	1929-30	None	N	50	None	Abandoned about 1930.
223	.0	+ 7	1929-30	Cf,G	D,S, Irr	100	None	Flowed in 1930.
224	.0	+ 9 - 4.2	1929-30 May 24, 1944	C,E	D,S	45	None	Do.
225	.0	+ 10 +	1929-30 May 24, 1944	Flows	Irr	--	111	Temperature 82° F.
226	.0	+ 15 + 0.5	1929-30 May 24, 1944	Flows Cf,G	D,S, Irr	75	2	
227	.0	+ 7 +	1929-30 May 24, 1944	Flows	D,S	--	202	Temperature 85½° F.
228	3.0	+ 26.5	May 24, 1944	Flows	D,S	--	390	Temperature 82° F.
229	.0	- 5	1929-30	A,G	D,S, Irr	--	--	
230	.0	+ 6 - 5.0	1929-30 May 24, 1944	Cf,G	D,S, Irr	60	None	
231	.0	+ 15 +	1929-30 May 24, 1944	Flows	Irr	250	e/150	Temperature 83½° F.
232	.0	+ 5 +	1929-30 May 24, 1944	Flows	Irr	--	97½	Temperature 86° F.
233	.0	+ 35	1929-30	--	--	400	--	
234	.0	+ 50 + 32.5	1929-30 May 12, 1944	Flows	D,S, Irr	250	180	
235	.0	+ 35 +	1929-30 May 12, 1944	Flows	D,S, Irr	300	175	Temperature 85° F.
236	.0	+ 5 +	1929-30 May 12, 1944	Flows Cf,G	Irr	35	35	
237	--	--	--	Cf,-	Irr	--	--	
238	.0	+ +	1929-30 May 24, 1944	Flows	D,S, Irr	100	260	Temperature 84° F.
239	.0	+ 5 + 3	1929-30 June 5, 1944	Flows	S	5	1	Originally drilled for oil test.
240	.0	- 20	1929-30	None	N	--	--	Abandoned.
241	.0	+ 80 +	1929-30 May 8, 1944	Flows	D,S, Irr	250?	150?	See log.

## Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
243	Pleasanton, 1 mile north of	Mrs. W. Campbell	--	1906	208	4	Mt. Selman formation
244	North Pleasanton, at railroad shop	Missouri Pacific Railway Co.	--	--	1,552	6	Carrizo sand
245	Charlotte, $4\frac{3}{4}$ miles north of	--	--	1927	160	4	Mt. Selman formation
246	Charlotte, $1\frac{1}{2}$ miles east of	A. E. Beckman	--	1928	1,692	7,4	Carrizo sand
247	Jourdanton, 7 miles southwest of	J. W. Madden	--	--	1,465	6	Mt. Selman formation
248	Jourdanton, $1\frac{1}{2}$ miles west of	C. A. Robertson	I. U. Bettison	--	1,040	8,6	do.
249	Jourdanton, 1 mile northeast of	Paul Anderson	--	1925	1,505	6	Carrizo sand
250	In Jourdanton	Central Power and Light Co.	Layne-Texas Co.	1930	1,635	10,8,6	do.
251	Jourdanton, $1\frac{1}{2}$ miles northeast of	C. S. Young	C. S. Young	1919	1,428	6	Mt. Selman formation
252	North Pleasanton, $\frac{3}{4}$ mile east of	J. W. Siefried	W. Brown	1924	499	5,6	do.
253	North Pleasanton, 3 miles east of	W. A. Rickter	--	--	1,429	10	Carrizo sand
254	do.	F. DeBarros	B. T. Spradley	1909	482	5,4	Mt. Selman formation
255	Coughran, $1\frac{1}{2}$ miles north of	W. J. Allerkamp	W. Brown	--	1,050	6,4	do.
256	Coughran, 1 mile northeast of	L. D. Hagg	do.	--	927	4	do.
257	Coughran, $\frac{1}{2}$ mile north of	do.	do.	--	903	6	do.
258	At Coughran	W. H. Gibson	--	--	885	6	do.
259	Coughran, 5 miles northeast of	Otto Grasso	W. Brown	--	1,157	6	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
243	.0	+ 10 + 10.5	1929-30 June 5, 1944	Flows	N	40	5	Temperature 81° F.
244	1.0	+ 95 + 23.5	1929-30 May 9, 1944	Flows	N	500	10	Casing failed and new well (no. 77) was drilled. Temperature 92 $\frac{1}{2}$ ° F.
245	.0	-130	1929-30	C,W	S	--	--	
246	1.0	- 13 - 23.8	1929-30 May 11, 1944	C,W	D,S	--	--	
247	.0	- 34.5	1929-30	C,H	D,S	--	--	
248	.0	- 80	1929-30	C,W	S	--	--	
249	.0	+ 55 + 29.5	1929-30 May 11, 1944	Flows	D,S, Irr	--	500	Temperature 92° F.
250	.0	- 6.5 - 20	1930 1943	T,E	P,Ind	--	--	Jourdanton city supply. Reported drawdown 57.5 feet while pumping 161 gallons a minute in 1930. See log.
251	.0	- 10 - 49.1	1929-30 June 5, 1944	C,W	S	--	--	See log.
252	.0	+ 4	1929-30	Flows	D,Irr	25	--	
253	.0	+ 2 - 6.0	1929-30 Apr. 25, 1944	Cf,G	Irr	10	None	
254	.0	+ 8 + 0.4	1929-30 May 10, 1944	A,G	S,Irr	35	None	Originally flowed 125 gallons a minute.
255	.0	+ 12 + 2.5	1929-30 May 10, 1944	Flows	D,S	100	--	
256	2.0	+ 33 + 26	1929-30 May 10, 1944	Flows	D,S, Irr	350	81	Temperature 84° F.
257	3.0	+ 50 + 24.3	1929-30 May 10, 1944	Flows	S,Irr	350	96	Temperature 85° F.
258	.0 3.0	+ 75 + 20.5	1929-30 May 9, 1944	Flows	P	200	40	Coughran town supply. Temperature 84° F.
259	1.0	+ 39 + 6.1	1929-30 May 10, 1944	Flows	D,S, Irr	200	--	

## Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
260	Pleasanton, in old courthouse yard	Atascosa County	A. J. Parchman	1900	666	3	Mt. Selman formation
261	In Pleasanton	Mrs. J. F. Spence	A. Fuente	1909	470	3,2	do.
262	do.	J. R. Daughtry	W. Cook	1913	505	4,3	do.
262a	do.	City of Pleasanton	--	--	815	8,4	do.
263	do.	T. Bright	W. Cook	1904	380	4,3	do.
264	do.	E. S. Ferris	B. T. Spradley	1910	563	3	do.
265	do.	E. H. Burmeister, Sr.	A. Fuente	1909	676	3	do.
266	do.	M. M. Mansfield	B. T. Spradley	1910	639	3	do.
267	do.	P. A. Vance Est.	do.	1912	686	5-3.8	do.
268	do.	R. L. Gross Est.	J. Mills	1912	708	3 $\frac{3}{4}$ ,2	do.
269	do.	W. A. McCoy Est.	--	1913	280	5,2	do.
270	do.	M. Royal	Allen and Wilson	1908	406	2,1 $\frac{1}{4}$	do.
271	do.	G. Long	A. Fuente	1909	720	4,3,2	do.
272	do.	J. L. Akeridge and W. N. Meeks	W. Cook	1902	610	3,2	do.
273	do.	C. W. Herzel	B. T. Spradley	1910	560	5	do.
274	do.	A. B. Gillste	J. T. Mills	1897	340	4	do.
275	do.	L. Thomason	W. Cook	1912	600	2	do.
276	do.	Mrs. K. C. Ormand	do.	1902	640	2	do.
277	do.	J. R. Cook	--	1902	640	2	do.
278	Pleasanton, north edge of	R. H. Blanch	--	1920	372	3	do.
279	In Pleasanton	C. W. Kenley	--	--	630	3	do.
280	Pleasanton, south edge of	N. A. McCoy	L. Devilbiss	1912	708	3 $\frac{3}{4}$	do.
281	Jourdanton, 5 $\frac{1}{4}$ miles southwest of	R. C. Thurmond, at LaParita Store	--	1909	707	5-3/16	Cook Mountain (?) formation
282	do.	John Matocha	-- Jourdan-ton	1913	1,340	6	Mt. Selman formation
283	Jourdanton, 5 miles southwest of	H. McCollum	W. Cook	1929	1,110	6	do.
284	Charlotte, 5 $\frac{1}{2}$ miles southwest of	M. M. Davis, Davistown gin	--	--	132	4	Cook Mountain formation

Well	Height of measuring point above ground (ft.) g/	WATER LEVEL	Date of measurement	Method of lift b/	Use of water c/	Rate of flow		Remarks
						Above (+) or below (-) measuring point (ft.)	1929-30	
260	2.0	+ 23	1929-30	Flows	N	65	13	Temperature 81° F.
		+ 8	June 6, 1944					
261	.0	+ 23	1929-30	Flows	D	18	--	Temperature 77° F.
262	.0	+ 9	1929-30	Flows	D	20	--	Coal at bottom. Water also reported at 340 ft.
262a	.0	+ 25	1929-30	Flows	P	--	--	
263	.0	+ 16	1929-30	Flows	D	4	--	Temperature 72° F.
264	.0	+ 25	1929-30	Flows	D	25	--	
265	.0	+ 25	1929-30	Flows	S	118	10	Temperature 80 $\frac{1}{2}$ ° F.
266	.0	+ 22	1929-30	Flows	D	150	--	Temperature 80° F.
267	.3	+ 18	1929-30	Flows	D	300	--	Temperature 81° F.
268	.0	+ 30	1929-30	Flows	D, Irr	70	--	Temperature 80° F.
269	.0	+ 20	1929-30	Flows	D	5	--	Temperature 70° F.
270	.0	+ 5	1929-30	Flows	D	15	--	Temperature 77° F.
271	.0	+ 10	1929-30	Flows	D	3	--	Temperature 77 $\frac{1}{2}$ ° F.
272	.0	+ 30	1929-30	Flows	D	75	--	
273	.0	+ 11	1929-30	Flows	D	70	--	
274	.0	+ 5	1929-30	Flows	D	12	--	
275	.0	+ 18	1929-30	Flows	D	50	--	Temperature 80 $\frac{1}{2}$ ° F.
276	.0	+ 12	1929-30	Flows	D	30	--	Temperature 74° F.
277	.0	+ 20	1929-30	Flows	D	30	--	
278	.0	+ 13	1929-30	Flows	D, Irr	60	--	
279	.0	+ 23	1929-30	Flows	D	200	--	
280	.0	+ 5	1929-30	Flows	D	5	--	
281	.0	+ 2	1929-30	Flows	D, S	3	--	
		- 4.0	1943	C, W				
282	.0	+ 2	May 25, 1944	Flows	D, S	175	9	
283	.0	- 10	1929-30	--	D	--	--	
284	.0	- 30	1929-30	C, G	Ind, D	--	--	

Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
285	Hindes, 2½ miles north of	W. M. Hindes	--	1909	440	4	Cook Mountain (?) formation
286	Hindes, ¼ mile north of	Atascosa State Bank	--	1915	350	4½	do.
287	Hindes, opposite railroad station	Hindes, Inc.	W. Cook	--	450	4½	do.
288	Hindes, ½ mile east of	J. D. Romberg	C. Edwards	--	400	4½	do.
289	Hindes, ¼ mile southeast of	S. Williams	do.	1895	445	4½	do.
290	Hindes, ½ mile southeast of	do.	do.	1918	450	4½	do.
291	Charlotte, 6 miles southeast of	M. N. Davis	--	1900	304	5-5/8	do. (?)
292	Charlotte, 7 miles south of	Y. D. Coleman	--	--	180	--	do.
293	Charlotte, 2½ miles southwest of	J. W. Chamberlain	--	1929	105	4	do. (?)
294	Charlotte, ½ mile southeast of	J. M. Couser	W. Favor	1912	200	4	do. (?)
295	Christine, north edge of	Town of Christine	--	1917	1,314	6, 4	Mt. Selman formation
296	In Christine	do.	--	1911	956	8	do.
297	Christine, 4½ miles east of	J. Campbell	--	1906	2,000	8	do.
298	Campbellton, 4½ miles northwest of	J. Dupuy	--	--	2,938	10	do. (?)
299	Poteet, 1¼ miles northwest of	H. C. McCaughn	--	1911	1,000	6	Carrizo sand
300	Pleasanton, 2 miles southeast of	Rupp Pipe Co.	--	1927	1,722	6, 5-7/16	do.
301	Christine, 5½ miles west of	R. Lauderdale	--	--	1,500	4	Mt. Selman formation
302	Pleasanton, 11 miles southeast of	J. D. Harrison	--	--	1,200	6	do.
303	In McCoy	W. H. Thane	--	--	900	--	do.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June, 1944 g.p.m.	
285	.0	- 5	1929-30	C,W	S	--	--	
286	0.4	+ 20	1929-30	Flows	S	10	--	
		- 4.10	May 11, 1944	C,W				
287	3.2	+ 32	1929-30	None	N	42	--	
		- 3.58	May 11, 1944					
288	.0	+ 20	1929-30	Flows	D	80	--	
289	.0	+ 15	1929-30	Flows	--	10	--	
290	.0	+ 20	1929-30	Flows	D	80	--	
291	.0	+ 15	1929-30	Flows	D,S	25	--	
		0	May 1944	C,W				
292	.0	- 30	1929-30	None	N	--	--	Plugged and abandoned.
293	.0	- 70	1929-30	C,W	D	--	--	
294	.0	- 15	1929-30	C,W	D	--	--	
295	.0	+ 25	1929-30	Flows	P	300	--	Principal water-bearing bed from 1,280 to 1,314 feet. Town supply
296	2.5	+ 17	May 25, 1944	Flows	S	250	32.5	Principal water-bearing bed from 951 to 956 feet.
297	.0	+	1929-30	Flows	S	75	--	Principal water-bearing bed from 1,422 to 1,563
298	.0	+	May 17, 1944	Flows	S	300	100	Principal water-bearing bed from 1,640 to 1,698 feet. Formerly used for irrigation.
299	0.5	- 27.5	1929-30	C,W	D,S	--	--	
		- 36.87	June 1, 1944					
300	.0	+ 98	1929-30	Flows	D,S, Irr	650	217	Principal water-bearing bed from 1,435 to 1,722 feet. Temperature 96° F.
301	.0	+ 60	1929-30	Flows	S	60	10	Drilled for oil test.
302	.0	+	May 16, 1944	Flows	D,S	--	10	Formerly used for irrigation. Temperature 92° F.
303	.0	+	do.	Flows	D,S	50	10	Temperature 91° F.

Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
304	McCoy, 5 miles east of	E. Albert	W. Stempel	1927	100	4	Yegua (?) formation
305	McCoy, 5½ miles east of	W. Taush	do.	1927	109	4	do.
306	McCoy, 5 miles east of	R. Smith	do.	1929	148	4	do.
307	McCoy, 4½ miles east of	do.	do.	1929	138	4	do.
308	McCoy, 3 miles east of	-- Parkhill	do.	1929	99	4	do.
309	McCoy, 3 miles southeast of	T. W. Smith	do.	1929	147	4	do.
310	McCoy, 5 miles east of	W. Taush	do.	--	57	4	do.
311	Campbellton, 8 miles northeast of	J. W. Smith	do.	1927	187	4	do.
312	Campbellton, 7½ miles northeast of	L. Mayer	do.	1926	187	4	do.
313	Campbellton, 8 miles northeast of	L. Brister	do.	1928	323	4	do.
314	Fashing, 4 miles northwest of	F. Ruckman	do.	1929	383	4	do. (?)
315	Fashing, 3½ miles northwest of	B. Hearhausler	do.	1928	168	4	--
316	Fashing, 2½ miles northwest of	W. Hearhausler	do.	1928	268	4	--
317	Fashing, 1¼ miles north of	H. Kelner	D.P. Paschal	1923	110	4¼	--
318	Fashing, ½ mile north of	F. Frenzil	do.	1923	110	4¼	--
319	Fashing, 1 mile northeast of	J. Seiler	do.	1923	91½	4½	--
320	In Fashing	J. Weigand	-- Schaffer	1929	198	4¼	--
321	Fashing, 1 mile southwest of	K. Kelner	D.P. Paschal	1924	160	4¼	--
322	In Fashing	Fashing Mercantile Co.	--	1927	150	4	--
323	Fashing, 2½ miles south of	Essy Bros.	D.P. Paschal	1923	160	4¼	--
324	Fashing, 4 miles southwest of	do.	do.	1923	155	4¼	--
325	Campbellton, 3 miles northwest of	A. N. Paller	--	1925	300	4	Yegua (?) formation
326	Campbellton, 2½ miles northwest of	do.	--	1928	1,600	4	Mt. Selman formation
327	In Campbellton	C. A. Struve	--	1928	2,000	8	do.
328	Campbellton, 4¼ miles southeast of	-- Douglas	W. Stempel	1927	249	4	--
329	Campbellton, 5½ miles southeast of	-- Oldenoff	do.	1927	247	4	--

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
304	.0	- 55	1929-30	None	N	--	--	Filled and abandoned.
305	.0	- 45	1929-30	C,W	S	--	--	Salty.
306	.0	- 65	1929-30	C,W	S	--	--	Do.
307	.0	- 60	1929-30	C,W	S	--	--	Do.
308	.0	- 50	1929-30	C,W	S	--	--	Do.
309	3.2	- 42.25	May 16, 1944	C,W	S	--	--	Do.
310	.0	- 50	1929-30	C,W	D	--	--	
311	.0	- 70	1929-30	C,W	S	--	--	Sulphur taste.
312	.0	- 98	1929-30	C,W	S	--	--	Salty.
313	.0	- 80	1929-30	C,W	D	--	--	Slightly salty.
314	.0	- 85	1929-30	C,W	S	--	--	Do.
315	.0	- 68	1929-30	C,W	S	--	--	Salty.
316	.0	- 68	1929-30	C,W	S	--	--	Do.
317	.0	- 70	1929-30	C,W	D	--	--	
318	.0	- 40	1929-30	C,W	S	--	--	Bitter taste.
319	.0	- 30	1929-30	C,W	S	--	--	
320	.0	- 60	1929-30	C,W	S	--	--	Salty.
321	--	--	1929-30	C,W	S	--	--	Sulphur.
322	.0	- 50	1929-30	C,W	S	--	--	Do.
323	.0	- 48	1929-30	C,W	S	--	--	
324	.0	- 50	1929-30	C,W	S	--	--	
325	.0	-100	1929-30	C,W	S	--	--	Salty.
326	--	+	1929-30	Flows	S	50	--	Do.
327	.0	+ 40	1929-30	Flows	--	200	g	Do.
		+	May 17, 1944					
328	.0	-135	1929-30	C,W	S	--	--	Do.
329	.0	-140	1929-30	C,W	S	--	--	Do.

Records of wells in Atascosa County--Continued

Well	Location	Owner	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon (Formation or group of formations)
330	Campbellton, 4 miles northeast of	R.T. Eshenberg	W. Stempel	1930	387	4	Yegua (?) formation
331	McCoy, 5 miles west of	A. Smith	do.	1930	138	4	Yegua or Cook Mountain formation
332	McCoy, 4 $\frac{1}{4}$ miles west of	do.	do.	1930	148	4	do.
333	McCoy, 5 miles west of	do.	do.	1929	144	4	do.
334	Campbellton, 1 $\frac{1}{2}$ miles northeast of	F. Allen	do.	1926	248	4	Yegua formation
335	Fashing, 1 $\frac{3}{4}$ miles northwest of	J. Weigang	-- Schaffer	1930	285	4	--
336	Coughran, 8 miles northeast of	S. Houston	W. Stempel	1928	247	4	Cook Mountain (?) formation
337	Charlotte, 5 miles north of	L. B. Wier	--	1908	1,207	5,3 $\frac{1}{2}$	Carrizo sand
338	Charlotte, 4 $\frac{1}{2}$ miles northwest of	E. J. Pruitt	--	--	376	4	Mt. Selman formation
339	Campbellton, 4 miles southeast of	Mrs. C. T. Tom	DeLange Eiser and Co.	--	4,644	--	--
340	do.	do.	Pantex Oil Co.	1915	2,440	--	Cook Mountain (?) formation
341	Pleasanton, 2 $\frac{1}{2}$ miles southeast of	T.H. Harrison	Geo. Boone	--	244	4	do.
342	Poteet, 4 miles east of	Henry Shearer	--	1930	909	4 $\frac{1}{2}$	Carrizo sand
343	Charlotte, west edge of	-- Chamberlain	--	--	--	--	Mt. Selman formation

a/ Minus (-) indicates measuring point was below ground.

b/ Pump or lift: T, turbine; Cf, centrifugal; C, cylinder; A, air lift

Power: E, electric; G, gasoline, oil or diesel engine; H, hand; W, windmill.

Number indicates horsepower.

Well	Height of measuring point above ground (ft.) a/	WATER LEVEL		Method of lift b/	Use of water c/	Rate of flow		Remarks
		Above (+) or below (-) measuring point (ft.)	Date of measurement			1929-30 g.p.m.	Apr.-June 1944 g.p.m.	
330	.0	- 80	1929-30	C,W	D	--	--	Slightly salty.
331	.0	- 70	1929-30	C,W	S	--	--	Salty.
332	.0	- 70	1929-30	C,W	S	--	--	Do.
333	.0	- 70	1929-30	C,W	S	--	--	Do.
	1.3	- 77.92	May 17, 1944					
334	.0	- 10	1929-30	C,W	S	--	--	Do.
335	--	--	--	--	--	--	--	Gas only.
336	.0	- 60	1929-30	C,W	S	--	--	Salty.
337	.0	- 60	1929-30	C,W	D,S	--	--	Water also at 360-375 feet.
	1.1	- 69.07	June 2, 1944					
338	.0	- 8	1929-30	C,W	--	--	--	Slight taste.
339	--	--	--	--	--	--	--	Abandoned oil test.
340	--	--	--	--	--	--	--	Abandoned oil test. Water reported at 1,200 feet.
341	.0	- 54	1929-30	C,W	S	--	--	Salty. <span style="border: 1px solid black; padding: 2px;">feet.</span>
342	.0	+ 15	1929-30	Flows Cf,G	D,S, Irr	150	9	
	1.0	+ 0.5	Apr. 25, 1944					
343	--	--	--	--	-D	--	--	

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

d/ Water level reported by driller or owner.

e/ Yield estimated.

Table of Drillers' Logs, Atascosa County, Texas

	Thickness (feet)	Depth (feet)
<u>Well 1</u>		
West Land Security Co., 9 $\frac{1}{4}$ miles north of Poteet.		
Sand and clay	3	3
Clay	30	33
White and red sand	47	80
Sand and clay	10	90
Red sand	5	95
Yellow sand	10	105
Sand and clay, mixed	18	123
Water sand	36	159
Sandy shale	44	203

	Thickness (feet)	Depth (feet)
<u>Well 54</u>		
C. P. Carter, 5 $\frac{1}{4}$ miles south of Poteet.		
Surface material	55	55
Rock	7	62
Sand	24	86
Shale	28	114
Rock	2	116
Sand	12	128
Shale and sand	28	156
Rock	2	158
Shale	23	181
Sand	17	198
Shale	38	236
Sandy shale	22	258
Sticky brown shale	52	310
Shale with streaks of coal	26	336
Shale	26	362
Sand and shale	24	386
Shale and lime	70	456
Shale and sand	38	494
Sand	44	538
Shale	18	556
Rock	2	558
Sand	23	581
Shale	31	612
Rock	3	615
Sand and shale	71	686
Sand with streaks of shale	95	781
Hard shale	9	790
Rock	2	792
Sand	56	848
Shale and sand	8	856
Sticky shale	11	867
Sand and shale	39	908
Rock	3	911

	Thickness (feet)	Depth (feet)
<u>Well 54--Continued</u>		
Sticky shale	57	968
Rock	2	970
Sandy shale	34	1004
Brown shale	41	1045
Sand	26	1071
Rock	9	1080
Shale with streaks of sand	51	1131
Sand with streaks of shale	69	1200
Hard rock	8	1208
Sand	10	1218
Rock	2	1220
Sand	6	1226
Rock	2	1228
Sand	4	1232
Rock	2	1234
Sand	12	1246
Shale	10	1256
Sand	24	1280
Shale	14	1294
Sand	8	1302
Shale	10	1312
Sand	8	1320
Shale	20	1340
Sand	10	1350
Shale	19	1369
Sand	89	1458

	Thickness (feet)	Depth (feet)
<u>Well 55</u>		
Simon Rodriguez, 5 miles southeast of Poteet.		
Soil	3	3
Sandy clay	7	10
Yellow sand	20	30
Gray shale	26	56
Sand	7	63
Shale	67	130
Sand	18	148
Not given	12	160
Sandy shale	122	282
Rock	1	283
Sand	10	293
Sand and limey shale	59	352
Rock	1	353
Sand	10	363
Shale	11	374
Sand	10	384
(Continued on next page)		



Table of Drillers' Logs, Atascosa County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 85--Continued</u>		
Hard sand	17	862
Hard shale and lime	18	880
Rock	1	881
Sand	9	890
Sand and shale	10	900
Sand	40	940
Boulders and sand	10	950
Sandy shale	15	965
Shell rock	7	972
Soft sand	48	1020
Hard sand	5	1025
Rock	1	1026
Sand	1	1027
Sand and shale	16	1143
Hard rock	2	1145
Water sand	13	1258
Shale and sand	70	1328
Lime, shale and sand	53	1381
Black shale	140	1481
Hard shale	59	1540
Shale	19	1559
Rock	1	1560
Black shale	30	1590
Sand rock	4	1594
Shale	9	1603
Hard sand (water)	47	1650
Hard rock	1	1651
Shale	4	1655
Coarse-grained sand	5	1660
Shale and shells	20	1680
Fine-grained sand	34	1714
Hard rock	2	1716
Sand and shale	77	1793
Sand and hard shale	58	1851
Sand - water	92	1943

	Thickness (feet)	Depth (feet)
<u>Well 110 -- Continued</u>		
Sandstone	6	246
Brown shale	30	276
Sandy shale	39	315
Sandy shale	19	334
Blue shale	21	355
Brown sandy shale	22	377
Sticky shale	66	443
Hard sticky shale	21	464
Hard fossils	21	485
Sticky shale	22	507
Sandy shale	22	529
Brown sticky shale	36	565
Hard rock	8	573
Hard broken shale	22	595
Sticky shale	22	617
Shale	28	645
Sand	5	650
Sticky shale	14	664
Green shale and lignite	40	704
Shale and lignite	38	742
Sand	8	750
Sandy shale	15	765
Shale	20	785
Brown shale	40	825
Hard sandstone	30	855
Broken sandstone	40	895
Shale	12	907
Green sand	18	925
Sticky shale	45	970
Sandy shale	20	990
Gray sand	20	1010
Sticky shale	20	1030
Hard broken sandstone	20	1050
Green sand	20	1070
Sandy shale	32	1202

<u>Well 110</u>		
Felix Henke, 8 $\frac{3}{4}$ miles east of Campbellton.		
Surface material	21	21
Rock	25	46
Gray sandstone	22	68
Green shale	22	90
Brown shale	22	112
Hard gray sandstone	21	133
Hard sandstone	22	156
Black flint	4	160
Sandy shale	20	180
Sandy shale	42	222
Sticky blue shale	18	240

<u>Well 112</u>		
H. R. Smith and J. E. Mowinckle, 3 $\frac{3}{4}$ miles east of Campbellton.		
Surface material	15	115
Sand	6	21
Shale	29	50
Rock	2	52
Shale	28	80
Shale and lignite	70	150
Rock	2	152
Sandy shale	6	158
Rock	1	159
Soft sand	2	161
(Continued on next page)		

Table of Drillers' Logs, Atascosa County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 112 -- Continued</u>		
Rock	1	162
Shale	15	177
Hard sandy shale	9	186
Rock	4	190
Hard shale and soft streaks	70	260
Lignite	1	261
Hard shale and lignite streaks	44	305
Rock	1	306
Shale	15	321
Shale and sand streaks	144	465
Sand	5	470
Shale	30	500
Rock	1	501
Shale	119	620
Shale and lignite	12	632
Shale	66	698
Rock	3	701
Water sand, (water rising within 100 feet of surface)	94	795
Shale	185	980
Rock	1	981
Sand	22	1003
Shale	112	1115
Sand	46	1161
Shale	59	1220
Sandy shale	65	1285
Rock	1	1286
Sandy shale	4	1290
Rock	1	1291
Sandy shale	44	1335
Sticky shale	57	1392
Rock	4	1396
Water sand	16	1412
Shale and boulders	178	1590
Shale and sand streaks	75	1675
Sticky shale	20	1695
Rock	1	1696
Sandy shale	4	1700
Shale and lime streaks	230	1980
Hard shale	113	2093
Rock	1	2094
Streaks of sand and shale	3	2097
Rock	5	2102
Shale	14	2116
Hard shale	157	2273
Sand	5	2278
Sandy shale and shells	54	2332
Sandy shale	35	2367
Sand (hot salty water rose to surface)	64	2431

	Thickness (feet)	Depth (feet)
<u>Well 112 -- Continued</u>		
Shale and shells	166	2597
Lime	3	2600
Rock	3	2603
Sand (hot salty water)	45	2648
Shale	5	2653
Rock	2	2655
Sand	2	2657
Sand and shells	205	2862
Hard sand	8	2870
Hard sand and soft streaks	26	2896
Shale and shells	91	2987
Sandy shale and shells	98	3085
Sand	37	3122
Hard sand	22	3144
Hard rock	5	3149
Sand	11	3160
Lime and sand	12	3172
Sandy shale	40	3212
Sand	58	3270
Shale and boulders	45	3315
Shale and lime streaks	57	3372
Sandy shale	124	3496
Shale	4	3500
Hard shale and lime	26	3526
Sandy shale and lime	84	3610
Hard shale and lime	30	3640
Sticky shale	20	3660
Lime	6	3666
Sandy shale	5	3671
Shale and lime	79	3750
Sticky shale	23	3773
Hard lime	4	3777
Shale	2	3779
Sandy shale and lime	37	3816
Sandy shale	49	3865
Brown shale	10	3875
Hard sandy shale	58	3933
Sand	227	4200

Well 114, partial log

Harrison and Abercrombie, 3 miles northwest of Campbellton.

Water sand	38	1038
Shale and sandy shale	147	1195
Sand	25	1218
Shale	106	1324
Sand	12	1336
Shale	179	1515
Sandy shale	29	1546

(Continued on next page)

Table of Drillers' Logs, Atascosa County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 114, partial log--Continued</u>		
Water sand	79	1625
Sandy shale	45	1670
Shale with hard streaks	105	1775
Water sand with shale breaks	570	2355
Shale	11	2366
Water sand	28	2394
Shale	16	2410
Broken sands	215	2625
Water sand	117	2742
Streaks of sand and shale	76	2828
Shale	37	2865
Shale and streaks of sand	185	3050
Broken water sands	122	3172
Water sand	271	3443
Hard shale	27	3470
Water sand and some shale breaks	333	3803
Water sand with hard streaks and shale breaks	202	4005

Well 118

E. J. Pruitt, 2 miles west of  
Charlotte.

Surface soil	3	3
Clay	9	12
Yellow sand	28	40
Shale	20	60
Sand	6	66
Shale	49	115
Rock	1	116
Sand and shale	18	134
Rock	2	136
Sand	9	145
Shale and boulders	75	220
Sand	9	229
Shale and boulders	98	327
Sand	33	360
Rock	1	361
Sand and shale	69	430
Rock	2	432
Sand and shale	20	452
Sand	8	460
Lime rock	4	464
Lime, shale	8	472
Shale	26	498
Water sand	50	548

	Thickness (feet)	Depth (feet)
<u>Well 119</u>		
E. J. Pruitt, 2 miles west of Charlotte.		
Surface sand	20	23
Yellow sand	20	43
Shale	12	52
Rock	1	53
Sand	18	71
Sand, shale	59	130
Hard rock	2	132
Sand	8	140
Rock	1	141
Sand and shale	16	157
Shale	20	177
Rock	1	178
Sand and boulders	162	340
Shale and boulders	160	500
Sand	60	560
Shale	36	596
Rock	1	597
Sand	27	624
Shale	110	734
Sand	22	756
Hard shale	76	832
Soft shale	38	870
Sand	50	920
Hard shale	8	928
Good sand	126	1054

Well 162, partial log 1/

A. Cortinas, 4 miles west of Rossville.

Mount Selman formation:		
Hard sand	25	25
Yellow clay	57	82
Rock	1	83
Carrizo sand:		
Hard sand	131	214
Sandrock	12	226
Hard rock	134	360
Sandrock	4	364
Hard sand	121	485
Indio formation:		
Black gumbo	15	500
Rock	5	505
Gumbo and shale	27	532
Pyrite	11	543
Sand and boulders	44	587
Rock	3	590
Gumbo	37	627
Hard rock	3	630

1/ Lonsdale, John T., Geology and ground-water resources of Atascosa and Frio counties, Texas, U.S. Geol. Survey Water-Supply Paper 876, p. 85, 1935.

Table of Drillers' Logs, Atascosa County--Continued

Well 241 <sup>2/</sup>		Well 241 <sup>2/</sup> -- Continued		
	Thickness (feet)	Depth (feet)	Thickness (feet)	Depth (feet)
E. R. Breaker farm, $1\frac{1}{2}$ miles north of Pleasanton.			Mount Selman formation:	
Mount Selman formation:			Rock	1 869
Surface sand	2	2	Shale and sand	31 900
Yellow clay	22	24	Gumbo	25 925
Gray clay	14	38	Rock	2 927
Blue clay	6	44	Water sand	273 1209
Water sand	64	108	Carrizo sand:	
Soft sandrock	92	200	Rock	6 1206
Water sand	24	224	Water sand	309 1515
Rock sand	11	235	Indio formation:	
Shale	15	250	Pyrite	3 1518
Soft asphalt rock and fine sand	14	264	Lignite	4 1522
Brown shale mixed with gumbo	22	286	Black gumbo	78 1600
Brown shale and sand	123	409	Packed sand	12 1612
Sandrock	3	412	Black gumbo	88 1700
Brown shale	27	439	Limestone	20 1720
Rock	1	440	Shell and shale	20 1740
Brown shale and sand	44	484	Gray blue gumbo	25 1765
Hard rock	1	485	Sand; water show	25 1790
Lignite	2	487	Shale	15 1805
Shale and sand	7	494	Rock	4 1809
Pyrite	1	495	Hard shale	102 1911
Shale and sand	10	505	Soft shale; gas show	6 1917
Hard rock	4	509	Rock (lime formation)	8 1925
Shale and sand	14	523	<sup>2/</sup> Lonsdale, John T., op. cit. pp.85-86.	
Hard limerock	2	525	<u>Well 250</u>	
Shale and sand	8	533	Central Power and Light Company, in Jourdanton.	
Gumbo	23	556	Surface soil	4 4
Sand, shale, and slate	33	589	Clay	50 54
Brown rock	3	592	Rock	1 55
Hard sand	22	614	Blue shale	14 69
Rock	4	618	Rock	2 71
Shale	25	643	Blue shale and boulders	115 186
Hard sand; water show	16	659	Rock	1 187
Soft shale and gumbo	21	680	Blue shale	13 200
Blue and brown shale and sand	37	717	Rock (pyrites)	2 202
Rock	1	718	Hard sand	22 224
Shale and sand	38	756	Blue shale and boulders	20 244
Gumbo	14	770	Rock	2 246
Rock	1	771	Shale and sand	14 260
Shale and sand	11	782	Rock	1 261
Brown rock	4	786	Shale	19 280
Soft shale and sand	4	790	Rock	2 282
Hard gumbo	14	804	Sand	24 306
Limerock	2	806	Shale and boulders	23 329
Sand; oil show	4	810	Rock (pyrites)	3 332
Porous rock; oil show	22	832	Shale	21 353
Shale and sand	24	856	Rock	1 354
Gumbo	12	868	(Continued on next page)	

Table of Drillers' Logs, Atascosa County--Continued

	Thickness (feet)	Depth (feet)
<u>Well 250--Continued</u>		
Shale	10	364
Rock	1	365
Shale and boulders	147	512
Hard sand	23	535
Shale and boulders	23	558
Sand	20	578
Shale and boulders	22	600
Sandy shale	80	680
Rock	1	681
Sandy shale	104	785
Rock	1	786
Shale and boulders	56	842
Rock	2	844
Shale	13	857
Sand	53	910
Sandy shale	65	975
Rock	2	977
Hard shale	20	997
Sand	46	1043
Sandy shale	26	1069
Rock	2	1071
Shale	15	1086
Sand	43	1129
Rock	3	1132
Shale	16	1148
Rock	2	1150
Sand	24	1174
Rock	1	1175
Shale	17	1192
Sand (good)	51	1243
Rock	4	1247
Shale	46	1293
Rock	3	1296
Shale and boulders	85	1381
Rock	2	1385
Shale	8	1391
Rock	6	1397
Shale and boulders	47	1444
Rock	3	1447
Sand (dry)	45	1492
Shale	16	1508
Sand (hard streaks)	96	1604
Coarse-grained white sand	31	1635

	Thickness (feet)	Depth (feet)
<u>Well 251 <sup>3/</sup>--Continued</u>		
Cock Mountain formation:		
Gravel, pyrite and gypsum	5	10
Black sand	10	20
Gravel and pyrite	30	50
Yellow rock	20	70
Black sand	5	75
Black shale	7	82
Gray sand	38	120
Oil showing	20	140
Water sand	22	162
Rock sand	140	300
Water sand	3	303
Sandstone and shell	32	335
Pack sand	3	338
Mount Selman formation:		
Hard, rough sandstone	202	540
Sand; oil showing	3	543
Red gumbo	7	550
Hard sandstone	12	562
Sandstone	6	568
Hard sandstone	3	571
Black sand	14	585
Blue gumbo	20	605
Black shale	25	630
Blue gumbo	15	645
Black shale	35	680
Pack sand	25	705
Blue gumbo	10	715
Sand and shale; oil show	7	722
Sand; oil show	8	730
Blue gumbo	15	745
Water sand	15	760
Blue sandstone	10	770
Hard blue shale	12	782
Gumbo and boulders	13	795
Hard blue gumbo	15	810
Water sand	10	820
Blue shale	50	870
Hard sand	12	882
Hard blue shale	18	900
Blue gumbo	10	910
Blue shale	21	931
Water sand	19	950
Hard sandstone	4	954
Gumbo and pyrites	16	970
Sandstone	4	974
Soft blue shale	8	982
Hard rough sandstone	3	985
Hard blue shale	5	990
Blue sandstone	3	993
Hard pack sand	7	1000
Blue sandstone	3	1003

<u>Well 251 <sup>3/</sup></u>		
C. S. Young ranch, 1½ miles northeast of Jourdanton.		
Cock Mountain formation:		
Yellow sand	2	2
Red clay	3	5

(Continued on next page)

Table of Drillers' Logs, Atascosa County--Continued

	Thickness (feet)	Depth (feet)
Well 251 <sup>3/</sup> --Continued		
Mount Selman formation:		
Blue shale	4	1007
Blue sandstone	3	1010
Hard blue sand	10	1020
Hard rough red rock	4	1024
Hard sandstone	11	1035
Blue sandstone	3	1038
Hard blue shale	30	1068
Blue sandstone	3	1071
Shale and sand; oil and gas	1	1072
Hard sandstone	8	1080
Water sand	10	1090
Blue sandstone	2	1092
Blue gumbo	18	1110
Blue sandstone	3	1113
Water sand	42	1155
Blue sandstone	5	1160
Blue shale	25	1185
Blue sandstone	3	1188
Water sand	22	1210
Hard blue shale; oil show	9	1219
Blue sandstone	3	1222
Hard blue shale	6	1228
Hard blue sandstone	2	1230
Blue shale	6	1236
Hard blue sandstone	4	1240
Blue shale	20	1260
Blue sandstone; oil show	3	1263
Hard blue shale	9	1272
Blue sandstone	3	1275
Soft blue shale	15	1290
Blue sandstone	4	1294
Blue gumbo	18	1312
Blue shale	13	1325
Blue sandstone	4	1329
Blue shale	11	1340
Blue sandstone	5	1345
Blue shale	5	1350
Blue sandstone	4	1354
Blue shale	16	1370
Blue sandstone	3	1373
Blue shale	7	1380
Blue sandstone	4	1384
Blue shale	11	1395
Blue sandstone	5	1400
Hard blue shale	10	1410
Brown shale	8	1418
Hard blue sandstone	10	1428

<sup>3/</sup> Lonsdale, John T., op. cit. p. 86.

	Thickness (feet)	Depth (feet)
Well 300 <sup>4/</sup>		
Kupp Pipe Company Farm, 2 miles south- east of Pleasanton		
Cook Mountain and Mount Selman formations:		
Yellow soil and clay	50	50
Dark-blue clay	25	75
Sandrock	2	77
Water sand	3	80
Blue clay	90	170
Blue water sand	8	178
Blue clay	127	305
Blue water sand	30	335
Blue clay	290	625
Blue water sand	90	715
Blue clay	89	804
Sandrock	106	910
Blue water sand	51	961
Sand and clay, hard	44	1005
Gray water sand	40	1045
Hard sand and shale	168	1213
Gray water sand	29	1242
Hard sandy shale	138	1380
Shale and gumbo	39	1419
Carrizo sand:		
White hard rock	16	1435
White water sand	75	1510
Blue hard rock	20	1530
White water sand	60	1590
Blue hard rock	30	1620
White water sand and coal	102	1722
<sup>4/</sup> Lonsdale, John T., op. cit. p. 87.		

Analyses of ground waters in Atascosa County

Analyzed at The University of Texas under the direction of W. W. Hastings, Chemist, U. S. Department of the Interior, Geological Survey, and Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry. Results are in parts per million. Well numbers correspond to numbers in table of well records.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na+K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> ) (turb.)	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness (soap)
Water probably from Carrizo sand															
3	R. W. Hamilton	169	May 31, 1944	-	-	0.50	-	-	-	32	16	45	-	-	60
5	H. Koehler	450	Aug. 16, 1945	-	-	3.5	-	-	-	77	24	59	-	-	100
9	Rudolph Stumberg	265	do.	-	-	6.8	-	-	-	54	46	63	-	-	86
23	T. J. Irvine	270	do.	-	-	1.5	-	-	-	88	40	52	-	-	104
24	Glen Clymer	560	do.	-	-	.10	-	-	-	70	26	52	-	-	94
34	A. E. Tutschke	521	do.	-	-	1.6	-	-	-	43	42	59	-	-	86
36	W. F. Hess	630	May 30, 1944	-	-	0.25	-	-	-	64	34	53	-	-	90
38	J. R. Shearer	540	Aug. 16, 1945	-	-	.10	-	-	-	52	24	46	-	-	72
54	C. P. Carter	1,458	May 12, 1944	-	-	0.71	-	-	-	212	44	36	-	-	204
55	Simon Rodriguez	1,405	May 9, 1944	-	-	0.81	-	-	-	192	42	34	-	-	174
56	C. P. Carter	1,900	do.	-	-	0.64	-	-	-	190	22	38	-	-	150
57	W. R. Targart	1,500	do.	-	-	1.6	-	-	-	200	40	37	-	-	174
61	Cyril Hooge	1,010	May 8, 1944	-	-	0.71	-	-	-	126	16	39	-	-	102
62	do.	1,090	do.	-	-	0.87	-	-	-	176	42	45	-	-	159
73	Dan McKenzie	320	June 5, 1944	-	-	1.9	-	-	-	279	52	90	-	-	237
75	Oscar Persyn	1,100	do.	-	-	7.0	-	-	-	77	32	52	-	-	102
76	Mrs. W. Campbell	1,200	do.	-	-	0.47	-	-	-	248	22	55	-	-	162
77	Missouri-Pacific R.R. Co.	1,550	May 9, 1944	-	-	0.50	-	-	-	230	36	38	-	-	204
81	M. L. Thompson	1,600	May 13, 1944	-	-	-	-	-	-	530	2	74	-	-	12
83	Roy Quillian	2,060	do.	-	-	-	-	-	-	230	22	25	-	-	180
85	S. L. Batchelor	1,943	May 9, 1944	-	-	0.20	-	-	-	278	24	30	-	-	216
86	Joe K. Williams	1,750	do.	-	-	0.14	-	-	-	284	36	35	-	-	207
98	M. F. Flores	2,010	May 10, 1944	-	-	2.0	-	-	-	302	44	46	-	-	204
101	F. M. McCarty	-	do.	-	-	4.4	-	-	-	266	36	42	-	-	204
111	Smith and Mowinkle	4,169	May 25, 1944	817	32	0.02	3.3	0.4	312	636	a/ 1.7	74	1.0	0	b/10

a/ Not by turbidity.  
b/ As CaCO<sub>3</sub> (Calculated)

c/ From Water-Supply Paper 676. Analyzed by Margaret D. Foster, Geological Survey, Washington, D. C.

Analyses of ground waters in Atascosa County — Continued

(Results are in parts per million)

Water probably from Carrizo sand

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na+K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> ) (turb.)	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness (soap)
112	Smith and Mowinkle	4,200	May 25, 1944	739	31	0.02	3.8	0.8	289	628	a/ 35	63	0.6	0	b/ 13
114	Harrison and Abercrombie	3,600	do.	2,010	14	0.02	3.1	0.8	320	1,450	a/129	322	3.4	1.8	b/ 11
117	Humble Oil and Refining Co.	1,520	May 1, 1944	-	-	0.08	-	-	-	43	130	337	-	-	252
161	G. W. Beachman	125	June 2, 1944	-	-	4.3	-	-	-	43	16	63	-	-	102
c/163	Mrs. Elsie Herberer	380	Feb. 22, 1928	227	18	1.1	31	6.2	33	52	a/50	51	-	.10	b/103
163	do.	380	June 2, 1944	-	-	0.60	-	-	-	57	24	60	-	-	114
c/166	R. W. Hamilton	175	June 18, 1932	107	-	.23	10	-	27	31	a/21	32	-	.42	b/ 34
166	do.	175	May 31, 1944	-	-	.10	-	-	-	31	14	58	-	-	81
177	-- Terrel	640	June 18, 1932	196	-	1.4	40	7.9	20	84	a/41	45	-	0	b/132
179	J. Cumpian	578	Aug. 16, 1945	-	-	3.0	-	-	-	103	55	32	-	-	124
190	Felix Mikolajczyk	380	do.	-	-	7.6	-	-	-	60	26	52	-	-	87
195	do.	715	do.	-	-	.53	-	-	-	39	34	52	-	-	81
c/197	Walter Flocke	600	May 26, 1932	199	19	1.1	29	6.0	28	60	a/36	43	-	-	b/ 97
206	J.M.Chittim Est.	850	June 1, 1944	-	-	1.0	-	-	-	40	34	64	-	-	102
c/216	do.	840	Feb. 22, 1928	180	18	0.58	23	4.8	27	43	a/33	46	-	.21	b/ 77
c/218	City of Poteet	835	May 26, 1932	193	16	11	28	6.1	28	55	a/32	47	-	0	b/ 95
c/220	J.M.Chittim Est.	840	do.	253	15	6.7	50	9.3	30	156	a/32	32	-	0	b/163
239	Oscar Persyn	2,600	June 5, 1944	-	-	1.9	-	-	-	202	22	39	-	-	150
c/241	F. R. Breaker	1,925	Feb. 20, 1928	292	20	0.52	59	8.5	32	139	a/39	34	-	0	b/182
c/249	Paul Anderson	1,505	Feb. 21, 1928	331	22	0.96	77	12	32	264	a/37	34	-	0	b/242
c/250	Central Power and Light Co.	1,635	June 18, 1932	333	-	0.90	68	15	39	278	a/41	33	-	0	b/232
c/300	Rupp Pipe Co.	1,722	June 19, 1932	334	-	0.69	32	12	23	268	47	33	-	0	b/254
300	do.	1,722	May 9, 1944	-	-	0.34	-	-	-	268	40	38	-	-	228
337	L. B. Wier	1,207	June 2, 1944	-	-	1.7	-	-	-	271	34	37	-	-	207

a/ Not by turbidity.

b/ As CaCO<sub>3</sub> (Calculated)

c/ From Water-Supply Paper 676. Analyzed by Margaret D. Foster, Geological Survey, Washington, D. C.

Analyses of ground waters in Atascosa County--Continued  
(Results are in parts per million)

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na+K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> ) (turb.)	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness (soap)
Water probably from Mount Selman formation															
78	O. P. Leonard	701	June 3, 1944	-	-	0.25	-	-	-	385	3	111	-	-	78
79	F. G. Hendricks	1,325	May 17, 1944	-	-	-	-	-	-	971	.240	1,120	-	-	-
82	Humble Oil and Refining Co.	640	May 18, 1944	-	-	0.30	-	-	-	461	500	505	-	-	-
84	C. L. Downey	1,000	do.	-	-	-	-	-	-	724	140	1,320	-	-	-
8 <sup>2</sup>	Dr. A. C. Hunter	600	do.	-	-	-	-	-	-	560	15	134	-	-	30
89	F. De Barros	700	do.	-	-	-	-	-	-	666	65	171	-	-	42
90	do.	700	do.	-	-	-	-	-	-	442	4	82	-	-	30
93	Mrs. Ola Richardson	1,100	May 10, 1944	-	-	0.05	-	-	-	564	2	95	-	-	18
95	Oscar Kreitz	900	do.	-	-	0.08	-	-	-	494	2	93	-	-	24
97	M. S. Coughran	700	May 18, 1944	-	-	-	-	-	-	836	80	376	-	-	3
99	Ralph Coughran	550	do.	-	-	-	-	-	-	422	550	230	-	-	42
100	Joe A. Coughran	600	do.	-	-	-	-	-	-	602	80	107	-	-	6
103	--	-	May 16, 1944	-	-	0.08	-	-	-	972	120	605	-	-	24
104	--	-	do.	-	-	-	-	-	-	123	1,400	1,040	-	-	-
105	E. A. Kinsel	-	do.	-	-	-	-	-	-	8	2,000	1,560	-	-	-
106	do.	1,300	do.	-	-	-	-	-	-	1,660	140	1,040	-	-	-
113	J. D. Harrison	1,600	do.	-	-	-	-	-	-	598	120	194	-	-	30
122	M. B. Hughey	1,012	June 3, 1944	-	-	0.10	-	-	-	618	220	1,320	-	-	129
123	do.	860	do.	-	-	0.00	-	-	-	770	210	660	-	-	60
c/172	Dan McKenzie	66	June 19, 1932	767	-	1.1	130	31	110	236	a/120	235	-	-	b/452
243	Mrs. W. Campbell	208	June 5, 1944	-	-	0.20	-	-	-	309	20	83	-	-	102
c/248	C. A. Robertson	1,040	June 18, 1932	442	-	1.7	48	23	88	272	a/73	75	-	.50	b/214
c/255	W. J. Allerkamp	1,050	June 19, 1932	583	-	-	5	-	249	543	a/1	81	-	0	b/18
257	L. D. Hagg	903	May 10, 1944	-	-	0.32	-	-	-	474	2	98	-	-	21
260	A. J. Parchman	666	June 6, 1944	-	-	0.00	-	-	-	375	2	98	-	-	66
c/262	City of Pleasanton	815	Feb. 20, 1928	484	20	0.09	6.8	3.7	176	356	a/2.2	90	-	0.10	b/32
c/263	T. Bright	380	June 19, 1932	917	-	1.2	5	-	380	455	1	335	-	0	b/20

a/ Not by turbidity.  
b/ As CaCO<sub>3</sub> (Calculated).

c/ From Water-Supply Paper 676. Analyzed by Margaret D. Foster, Geological Survey, Washington, D. C.

Analyses of ground waters in Atascosa County--Continued  
(Results are in parts per million)

Well	Owner	Depth of well (ft.)	Date of collection	Total dis- solved solids	Silica (SiO <sub>2</sub> )	Iron (Fe)	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Potas- sium (Na+K) (cal.c.)	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> ) (turb.)	Chlo- ride (Cl)	Fluor- ide (F)	Ni- trate (NO <sub>3</sub> )	Total hardness (soap)
Water probably from Mount Selman formation															
265	E.H. Burmeister, Sr.	676	June 6, 1944	-	-	-	-	-	-	421	38	76	-	-	58
c/274	A. B. Gillete	340	June 19, 1932	969	-	-	3	-	398	528	a/109	235	-	0	b/12
c/279	C. W. Kenley	630	do.	458	-	0.23	7	-	185	363	1	92	-	0	b/26
282	John Matocha	1,340	May 25, 1944	-	-	-	-	-	-	354	4	68	-	-	36
c/295	City of Christine	1,314	June 19, 1932	1,652	-	-	3	-	672	781	a/153	475	-	.68	b/9
295	do.	1,314	May 25, 1944	1,710	14	0.08	4.8	1.4	672	743	152	497	1.7	2.0	18
c/296	do.	956	June 19, 1932	1,718	21	0.10	4.8	2.3	657	769	a/152	460	-	2.5	b/21
296	do.	956	May 25, 1944	-	-	-	-	-	-	867	440	1,580	-	-	-
298	J. Dupuy	2,938	May 17, 1944	-	-	-	-	-	-	1,260	120	475	-	-	24
302	do.	1,200	May 16, 1944	-	-	-	-	-	-	1,640	100	825	-	-	-
c/303	McCoy	900	June 19, 1932	2,980	-	-	3	-	1,255	1,671	a/163	850	-	0	b/10
303	do.	900	May 15, 1944	-	-	-	-	-	-	1,680	130	845	-	-	-
327	C. A. Struve	2,000	May 17, 1944	-	-	-	-	-	-	697	4	4,520	-	-	-

Water from Cook Mountain or Yegua formations

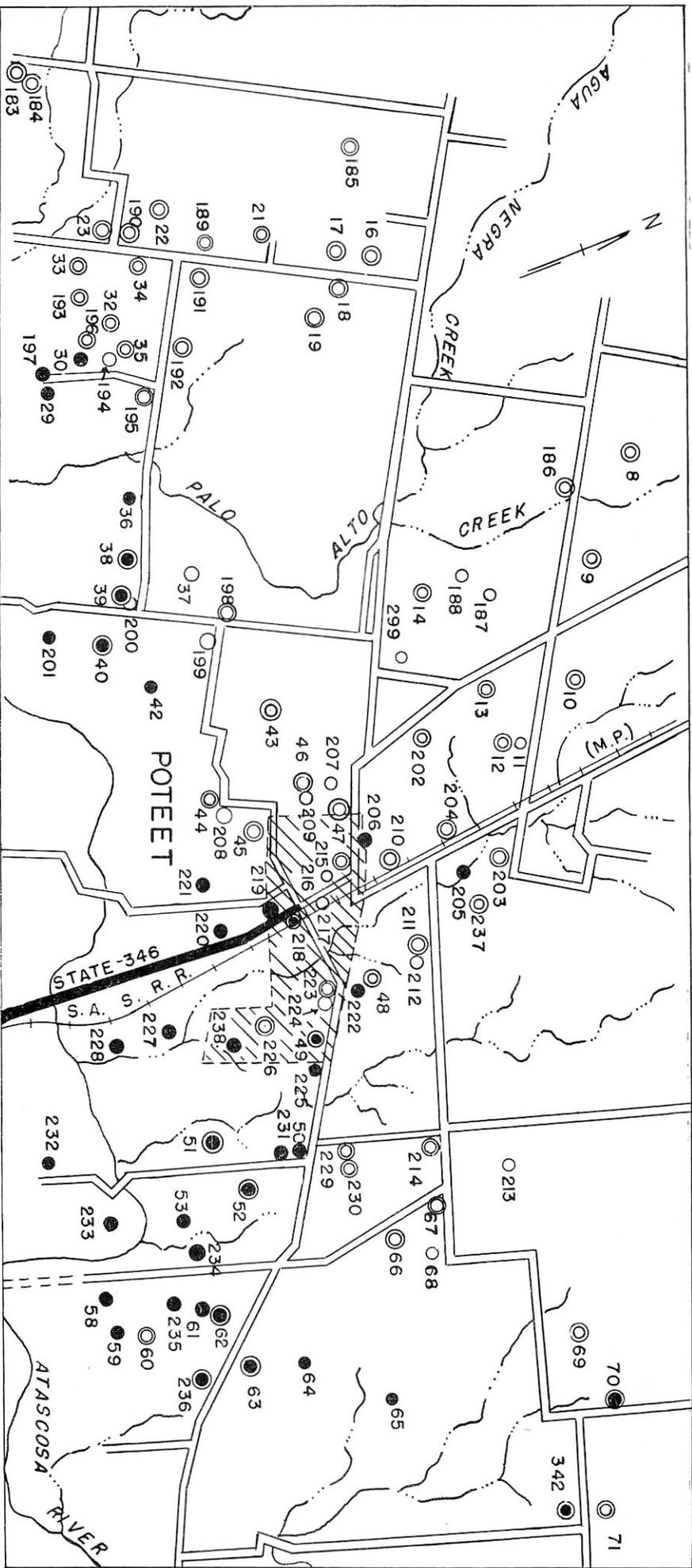
80	Clyant Smith	285	May 17, 1944	-	-	-	-	-	-	245	2,000	1,580	-	-	-
109	Felix Henke	765	May 25, 1944	-	-	-	-	-	-	976	20	740	-	-	-
121	Lee Minton	-	June 3, 1944	-	-	0.64	-	-	-	718	180	1,060	-	-	108
286	Atascosa State Bank	350	May 11, 1944	-	-	0.25	-	-	-	225	550	472	-	-	-
c/287	Hindes Inc.	450	June 19, 1932	1,699	-	-	9	-	639	324	a/547	412	-	2.7	b/28
332	A. Smith	148	May 17, 1944	-	-	-	-	-	-	322	2,000	720	-	-	-

a/ Not by turbidity.

b/ As CaCO<sub>3</sub> (Calculated)

c/ From Water-Supply Paper 676. Analyzed by Margaret D. Foster, Geological Survey, Washington, D. C.





MAP OF  
 POTEET AREA  
 FOR EXPLANATION SEE PLATE I.

