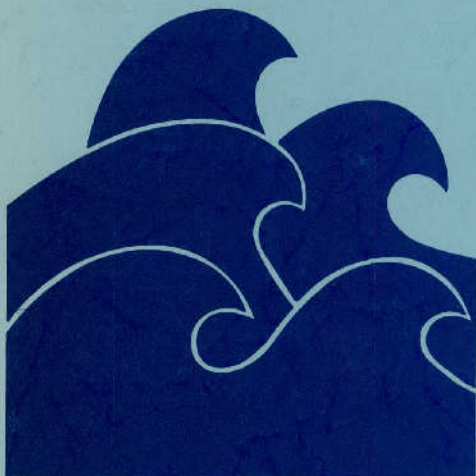


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*GROUND-WATER RESOURCES OF  
COLORADO, LAVACA, AND  
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July 1982





**TEXAS DEPARTMENT OF WATER RESOURCES**

**REPORT 270**

**GROUND-WATER RESOURCES OF COLORADO, LAVACA,  
AND WHARTON COUNTIES, TEXAS**

By

Carole L. Loskot, William M. Sandeen,  
and C. R. Follett  
U.S. Geological Survey

This report was prepared by the U.S. Geological Survey  
under cooperative agreement with the Texas  
Department of Water Resources.

July 1982

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# GROUND-WATER RESOURCES OF COLORADO, LAVACA, AND WHARTON COUNTIES, TEXAS

## ABSTRACT

The main sources of fresh water for all uses in Colorado, Lavaca, and Wharton Counties are the Chicot and Evangeline aquifers. The Jackson Group, Catahoula Sandstone, and Jasper aquifer are minor sources of water and are largely undeveloped in the area. The Chicot aquifer, which consists of discontinuous layers of sand and clay of about equal aggregate thickness, ranges in total thickness from 0 in the outcrop area to about 1,200 feet (366 m) in southern Wharton County. The Evangeline aquifer, which also consists of discontinuous sand and clay layers, ranges in total thickness from 0 at the outcrop to about 1,500 feet (457 m) in Wharton County. The combined thicknesses of the fresh-water sands in the Chicot and Evangeline aquifers range from 0 at the outcrop to more than 850 feet (259 m) in Wharton County.

Average daily withdrawals of ground water for all uses in 1974 were 252 million gal/d (954,000 m<sup>3</sup>/d), most of which was used for rice irrigation; smaller amounts of water were pumped for municipal supply and industrial use. Estimates of the additional amounts of fresh and slightly saline water in available storage are based on the assumptions of average sand thicknesses of 250 feet (76 m) and 200 feet (61 m) in the Chicot and Evangeline aquifers, respectively, and a specific yield of 0.2. Sands of the Chicot aquifer contain about 72.0 million acre-feet (88,776 hm<sup>3</sup>) of fresh water in available storage, and sands of the Evangeline aquifer contain about 71.7 million acre-feet (88,406 hm<sup>3</sup>) of fresh water and about 9.0 million acre-feet (11,097 hm<sup>3</sup>) of slightly saline water in available storage. Additional amounts of water, probably 20 to 25 percent of the amount available from the sands; would be available from the clays.

Additional development of the ground-water resources is possible throughout most of Colorado, Lavaca, and Wharton Counties, but the consequences of more land subsidence and declining water levels should be carefully considered. The most favorable areas are in central Wharton County. Additional potential for

development exist in most other areas where as much as 50 feet (15 m) of sand occurs in the Chicot aquifer.

Considerable amounts of brine are produced in Colorado, Lavaca, and Wharton Counties in conjunction with the production of oil and gas. To prevent possible contamination of the fresh water, the Railroad Commission of Texas requires that oil and gas wells must have cemented casings from the land surface to the base of the slightly saline water. The elimination of brine-disposal pits has minimized contamination by this method of salt-water disposal, but contamination may still occur through improperly cased wells, abandoned injection wells, and abandoned brine-disposal pits.

The vast amounts of water in storage cannot be recovered fully without depleting the supply and incurring other serious consequences. More judicious approaches to determining the quantities of water available for development were based on theoretical lines of recharge and discharge with drawdowns of 200 feet (61 m) at the lines of discharge. On the basis of theoretical lines of recharge and discharge with drawdowns of 200 feet (61 m), about 50,000 acre-feet (62 hm<sup>3</sup>) and 20,000 acre-feet (25 hm<sup>3</sup>) could be produced from the Chicot and Evangeline aquifers, respectively, with only moderate pumping lifts without depleting the supply. These amounts of water are less than the potential amounts of natural recharge that are available to the aquifers. The potential recharge is estimated to be 78,000 acre-feet (96 hm<sup>3</sup>) per year for the Chicot aquifer and 38,000 acre-feet (47 hm<sup>3</sup>) per year for the Evangeline aquifer. These recharge estimates are about the maximum amount perennially available without depleting the large quantities of ground water in storage.

Present (1974) pumpage from the Chicot and Evangeline aquifers exceeds those estimated amounts of recharge. Consequently, some water-level decline and land-surface subsidence may be expected to continue.

Land-surface subsidence as a result of ground-water withdrawal is not a problem at this time. However, more data are needed to determine the extent of subsidence and the relationship between the amount

of ground-water withdrawals and the amount of subsidence. The available data indicate that maximum subsidence within the three counties is less than 1 foot (0.3 m), and in most places is less than 0.5 foot (0.15 m).

# GROUND-WATER RESOURCES OF COLORADO, LAVACA, AND WHARTON COUNTIES, TEXAS

## INTRODUCTION

Colorado, Lavaca, and Wharton Counties, which include an area of about 3,000 square miles (7,770 km<sup>2</sup>) on the Gulf Coastal Plain of southeastern Texas, are about midway between Houston and San Antonio and from 35 to 100 miles (56 to 161 km) inland from the Gulf of Mexico (Figure 1). Agriculture, mainly rice farming and livestock production, form the economic base for a population of about 75,000 in the three-county area. The production of oil, gas, sulfur, and gravel are additional and important sources of income in some local areas.

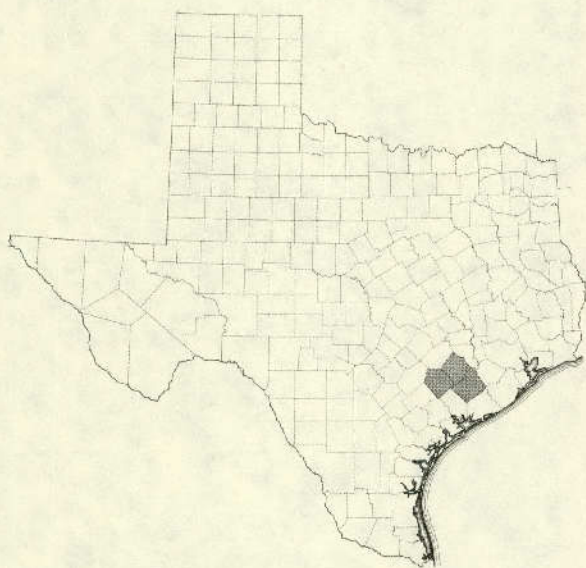


Figure 1.—Location of Colorado, Lavaca,  
and Wharton Counties

The climate of the area is humid subtropical, and annual rainfall is abundant. The average annual precipitation for 1912-73 was 37.07 inches (940 mm) at Hallettsville in Lavaca County and 41.02 inches (1,040 mm) at Columbus in Colorado County. For 1905-73, the average annual precipitation at Pierce in Wharton County was 41.11 inches (1,040 mm). Rainfall is fairly well distributed throughout the year, with the

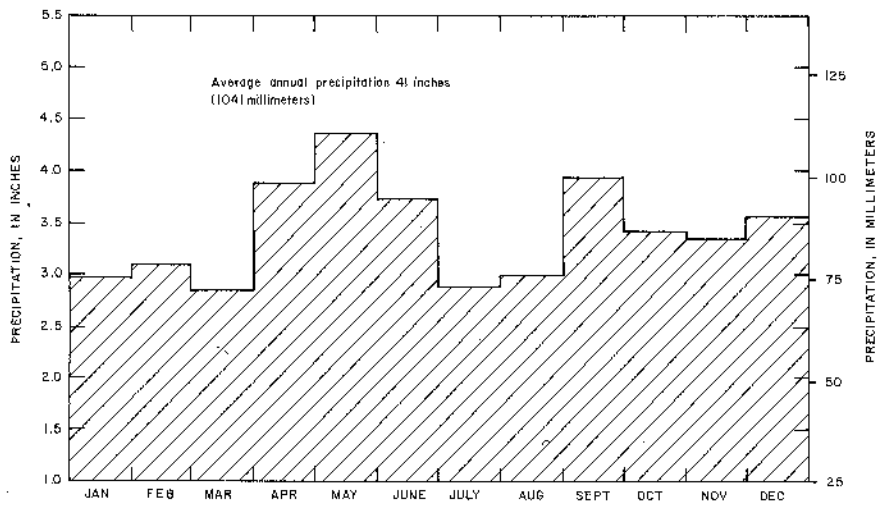
maximum amount usually occurring in May or September and the minimum amount usually occurring in March (Figure 2). The average monthly temperatures at Pierce and Hallettsville for 1932-63 are also shown on Figure 2. The average annual gross lake-surface evaporation for the three-county area was about 54 inches (1,370 mm) during 1940-65 (Figure 3). Evaporation is not a problem in the area except during exceptionally dry years when the potential evaporation rate, which exceeds the average annual precipitation, increases the severity of drought conditions.

## Purpose and Scope of the Investigation

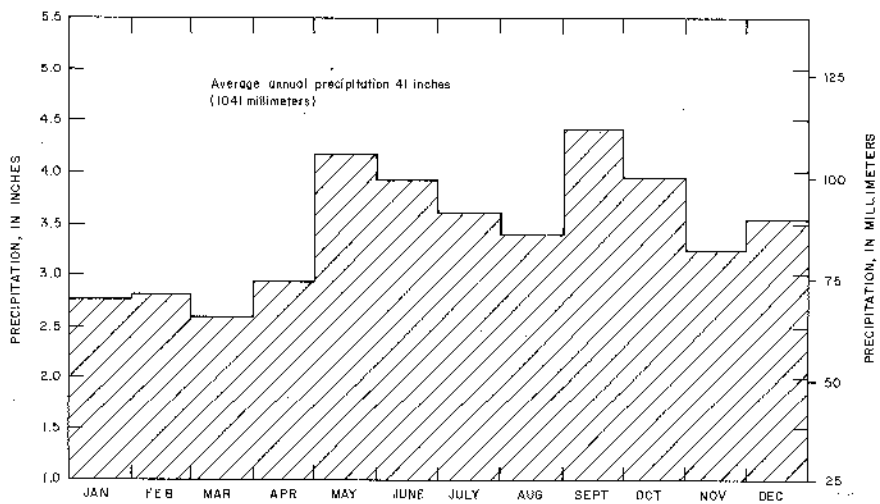
The investigation of the ground-water resources of Colorado, Lavaca, and Wharton Counties began in 1973 as a cooperative project of the U.S. Geological Survey and the Texas Water Development Board (now the Texas Department of Water Resources). The purpose of the investigation was to determine the occurrence, availability, dependability, quantity, and quality of the ground-water resources of the area. Special emphasis was placed upon estimating the quantities of ground water available for development and on determining the areas most favorable for additional development.

The scope of the investigation included the collection, compilation, and analyses of data on the location and extent of the water-bearing formations, the chemical quality of the water in the aquifers, the quantity of water being pumped for all uses, the effects of ground-water pumping on water levels in wells, the hydraulic characteristics of the principal water-bearing formations, estimates of the quantities of ground water available for development, and the effects of ground-water withdrawals on land-surface subsidence. An inventory was made of all industrial, municipal, and irrigation wells, and of selected rural-domestic wells, livestock wells, and test holes in Colorado, Lavaca, and Wharton Counties (Table 4); records of selected wells were compiled for adjacent counties (Table 5). The locations of the wells and test holes are shown on Figures 30-32.

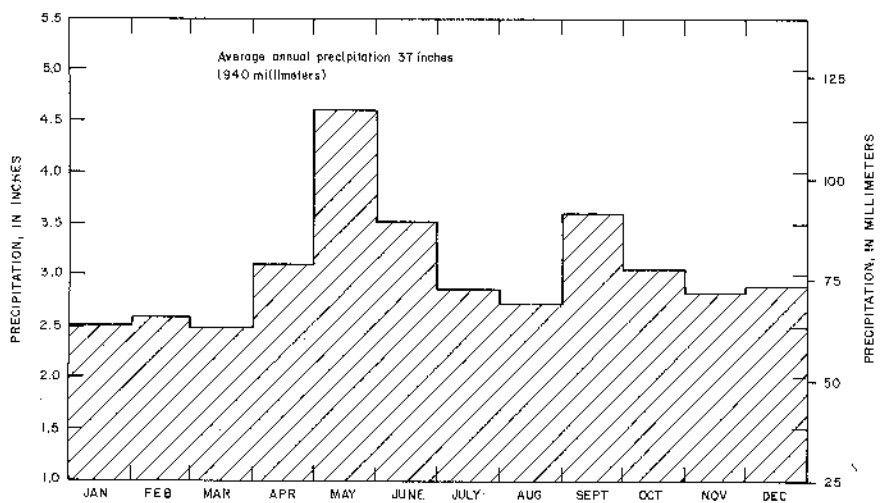




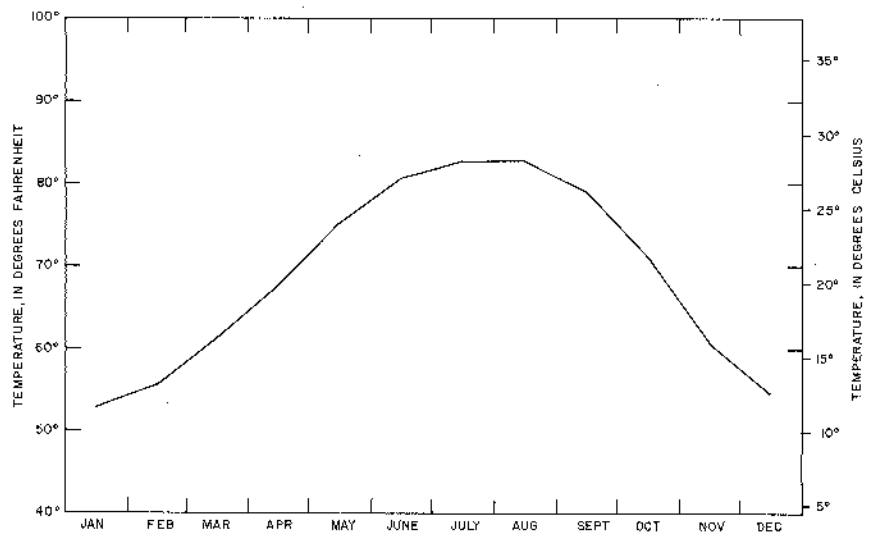
Average monthly precipitation at Columbus, Texas, 1912-73



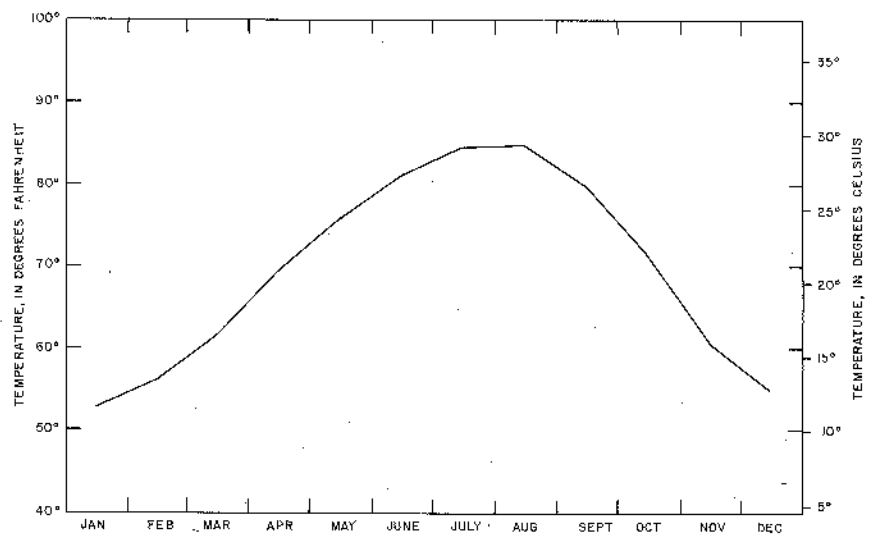
Average monthly precipitation at Pierce, Texas, 1907-73



Average monthly precipitation at Hallettsville, Texas, 1912-73



Average monthly temperature at Pierce, Texas, 1932-62



Average monthly temperature at Hallettsville, Texas, 1932-63

Figure 2

Average Monthly Precipitation at Columbus, Pierce, and Hallettsville, and Average Monthly Temperature at Pierce and Hallettsville



In addition to the inventory of wells and test holes, the following items of work were included in the investigation:

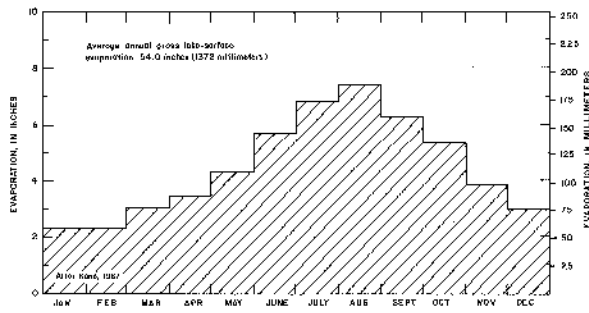


Figure 3.—Average Monthly Gross Lake-Surface Evaporation in Colorado, Lavaca, and Wharton Counties, 1940-65

1. Electrical logs of water wells and oil tests were analyzed to construct geohydrologic sections, to construct maps showing the thicknesses of sands in the principal aquifers, to determine the altitudes of the base of fresh and slightly saline water, and to determine the altitudes of the base of the Chicot and Evangeline aquifers.

2. An inventory was made of the withdrawals of ground water for public supply, industrial use, and irrigation.

3. Drillers' logs of wells were collected and analyzed (Table 6).

4. Forty-three aquifer tests were made in wells in the Chicot, Evangeline, and Jasper aquifers. The information obtained from these tests provided data for the computations of transmissivities, storage coefficients, and hydraulic conductivities.

5. Climatological records were collected and compiled.

6. Water levels in wells were measured, and historical records of water levels were analyzed to determine the long-term hydrologic effects of ground-water pumping (Table 7).

7. Data on land-surface subsidence were collected and analyzed.

8. Water samples were collected and analyzed to determine the chemical quality of the water in the principal aquifers (Table 8).

## Previous Investigations

Taylor (1902, 1907), in generalized hydrologic studies of the Gulf Coastal Plain, furnished the earliest information available on ground water in Colorado, Lavaca, and Wharton Counties. His work is the source of the water-level data used to determine the original (predevelopment) altitudes of the potentiometric surfaces in the aquifers.

George (1936) compiled information on wells and test holes, water quality, and drillers' logs in Lavaca County. May (1938) inventoried wells in Colorado County and assembled drillers' logs and chemical analyses of ground-water samples. Bridges (1935) compiled well records, drillers' logs, and chemical analyses of water samples for Wharton County; and Cromack (1940) provided additional well records, drillers' logs, and water analyses for Wharton County. Barnes (1948) presented a detailed discussion of the water resources of Wharton County, including well records, drillers' logs, and chemical analyses.

Water levels in a few selected wells in Colorado, Lavaca, and Wharton Counties have been measured annually by either the U.S. Geological Survey or the Texas Department of Water Resources since 1934, and in other wells since 1956. Historical water-level measurements in Jackson, Matagorda, and Wharton Counties were reported by Rayner (1958). Wood (1956) reported on ground-water availability on the Texas Gulf Coast, including Colorado, Lavaca, and Wharton Counties. Wood, Gabrysch, and Marvin (1963) collected field data and prepared a report on the water-bearing potential of the principal aquifers in the Gulf Coast region, including the area of Colorado, Lavaca, and Wharton Counties.

Mount and others (1967) made a reconnaissance of the Colorado River basin that included parts of Colorado and Wharton Counties. Because the ground-water hydrology of Wharton County and the southern parts of Colorado and Lavaca Counties is similar to the hydrology of other areas in which investigations have been completed, the following reports were useful in analyzing the hydrologic data obtained for this report:

<u>County</u>	<u>Author and date</u> <sup>1</sup>
Jackson	Baker (1965)
Matagorda	Hammond (1969)

<sup>1</sup>See references cited

<u>County</u>	<u>Author and date</u> <sup>1</sup>
Brazoria	Sandeen and Wesselman (1973)
Fort Bend	Wesselman (1972)
Austin and Waller	Wilson (1967)
Fayette	Rogers (1967)
Gonzales	Shafer (1965)
DeWitt	Follett and Gabrysch (1965)
Victoria and Calhoun	Marvin and others (1962)

<sup>1</sup> See references cited

### Well-Numbering System

The well-numbering system used in this report is the system adopted by the Texas Department of Water Resources for use throughout the State. Under this system, each one-degree quadrangle in the State is given a number consisting of two digits. These are the first two digits in the well number. Each one-degree quadrangle is divided into 7 1/2-minute quadrangles that are given two-digit numbers from 01 to 64. These are the third and fourth digits of the well number. Each 7 1/2-minute quadrangle is subdivided into 2 1/2-minute quadrangles given single-digit numbers from 1 to 9. This is the fifth digit of the well number. Each well within a 2 1/2-minute quadrangle is given a two-digit number in the order in which it was inventoried. These are the last two digits of the well number.

Only the last three digits of the well number are shown adjacent to the well locations on the maps (Figures 30-32). The second two digits are shown in the northwest corner of each 7 1/2-minute quadrangle, and the first two digits are shown by the large double-line numbers.

In addition to the seven-digit well number, a two-letter prefix is used to identify the county. The prefixes for Colorado, Lavaca, Wharton, and adjacent counties are as follows:

<u>County</u>	<u>Prefix</u>	<u>County</u>	<u>Prefix</u>
Austin	AP	Gonzales	KR
Brazoria	BH	Jackson	PP
Colorado	DW	Lavaca	RY
DeWitt	HX	Matagorda	TA
Fayette	JT	Victoria	YT
Fort Bend	JY	Wharton	ZA

For example, well ZA-66-54-603 (which supplies water for the city of El Campo) is in Wharton County (ZA) in the 1-degree quadrangle (66), in the

7 1/2-minute quadrangle (54), in the 2 1/2-minute quadrangle (6), and was the third well (03) inventoried in that 2 1/2-minute quadrangle.

### Metric Conversions, Abbreviations, and Use of Quantitative Terms

For readers interested in using the metric system, metric equivalents of English units of measurements are given in parentheses in the text of this report. The English units may be converted to metric units by the following conversion factors:

<u>From</u>	<u>Multiply by</u>	<u>To obtain</u>
acre-foot	0.001233	cubic hectometer (hm <sup>3</sup> )
barrel	.1590	cubic meter (m <sup>3</sup> )
foot	.3048	meter (m)
foot per day (ft/d)	.3048	meter per day (m/d)
foot per mile (ft/mi)	.189	meter per kilometer (m/km)
foot squared per day (ft <sup>2</sup> /d)	.0929	meter squared per day (m <sup>2</sup> /d)
inch	25.4	millimeter (mm)
inch	2.54	centimeter (cm)
mile	1.609	kilometer (km)
million gallons per day (million gal/d)	.04381	cubic meter per second (m <sup>3</sup> /s)
million gallons per day (million gal/d)	3,785	cubic meter per day (m <sup>3</sup> /d)
square mile	2.590	square kilometer (km <sup>2</sup> )

Quantitative terminology used in this report with regard to yields of wells and water quality are defined as follows:

<u>Yields of wells</u> (in gallons per minute)	<u>Water quality</u> <sup>1</sup> (dissolved-solids concentration in milligrams per liter)
small—less than 100	fresh—less than 1,000
moderate—100 to 1,000	slightly saline—1,000 to 3,000
large—more than 1,000	moderately saline—3,000 to 10,000
	very saline—10,000 to 35,000
	brine—more than 35,000

The general term "salt water" is used here to describe water in which the salinity varies or is unknown.

<sup>1</sup> Modified from Winslow and Kister (1956).



## Acknowledgments

The authors express their appreciation to the many land owners, well owners, and industrial and municipal officials for their cooperation in allowing access to their land and wells, for assisting in the collection of well data, and for permitting aquifer tests to be conducted in appropriate wells.

Particular appreciation is expressed to Mr. Harold Mickelson, to the Crowell Drilling Company, to the Katy Drilling Company for their exceptional help during this investigation, to Jack Waldron with Layne Texas Company, and to Marvin Lang of L&N Drilling Company.

## GEOLOGIC AND HYDROLOGIC UNITS AND THEIR WATER-BEARING CHARACTERISTICS

The geologic units containing fresh and slightly saline water in Colorado, Lavaca, and Wharton Counties are the Jackson Group of Eocene age; the Catahoula Sandstone of Oligocene and Miocene age; the Oakville Sandstone and Fleming Formation of Miocene age; the Goliad Sand of Pliocene age; the Willis Sand, Lissie Formation (correlative with the Bentley and Montgomery Formations), and Beaumont Clay of Pleistocene age; and the alluvium of Quaternary age (Figure 4). The hydrologic units are identified as the Catahoula Sandstone, the Jasper aquifer, the Burkeville confining layer, the Evangeline aquifer, and the Chicot aquifer. The correlation of the hydrologic and geologic units is given in Table 1.

With exception of the Quaternary alluvium, the geologic formations crop out in belts that are nearly parallel to the shoreline of the Gulf of Mexico. The younger formations crop out nearer the Gulf and the older formations crop out farther inland (Figure 4). All formations thicken downdip so that the older units dip more steeply than the younger ones. Faults are common in the area, and some of them displace the older Tertiary formations by several hundred feet. The south flank of Boling Dome, for example, is associated with one of the largest known thrust faults on the Texas Gulf Coast (Halbouty and Hardin, 1954, p. 1725-1740). The fault displacements tend to decrease upward so that in many places the faulting may not be apparent at the surface. Generally, the geologic units containing freshwater are not displaced enough to disrupt regional hydraulic continuity; therefore the faults have not been shown on the geologic map and geohydrologic sections.

## Jackson Group

The Jackson Group of Eocene age underlies the Catahoula Sandstone. The Whitsett Formation, the uppermost formation of the Jackson Group, crops out in the extreme northwestern part of Lavaca County (Figure 4). The older formations of the Jackson Group are present in the subsurface but are not differentiated in this report.

The Jackson Group is composed of a series of predominantly terrestrial shales with some sand units that are capable of yielding small to moderate amounts of fresh to slightly saline water in the outcrop area and in areas a short distance downdip from the outcrop. Geologic and hydrologic data for the Jackson Group are meager, and because of its minor importance as a water-bearing unit in the three-county area, the Jackson Group is not discussed in detail in this report.

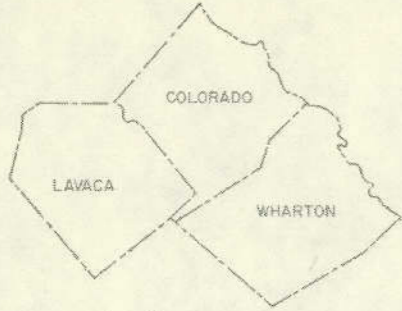
## Catahoula Sandstone

The Catahoula Sandstone of Oligocene and Miocene age, which consists of alternating beds of clay, tuff, and sandstone, crops out in the northwestern part of Lavaca County (Figure 4). Near the outcrop, the Catahoula is sandy, but it generally becomes tuffaceous downdip. The sandy units of the Catahoula are probably in hydraulic continuity with the overlying sands of the Jasper aquifer. In and near the outcrop area, the Catahoula supplies small to moderate quantities of fresh to slightly saline water to wells in the northwestern part of Lavaca County and in the extreme northwestern part of Colorado County. Downdip from the outcrop area, the Catahoula contains a greater percentage of fine-grained material and functions as a confining layer.

## Jasper Aquifer

The Jasper aquifer consists mainly of the Oakville Sandstone, which crops out in the northwestern part of Lavaca County (Figure 4), but may in places include the upper part of the Catahoula Sandstone (Table 1). The Oakville, which unconformably overlies the Catahoula Sandstone, consists of laterally discontinuous sand and gravel lenses interbedded with shale and clay. Massive crossbedded-sandstone beds at the base of the formation grade upward into more thinly bedded units that contain greater amounts of shale and clay. The Jasper aquifer ranges in thickness from about 200 feet (61 m) near the outcrop to about 2,500 feet (760 m) downdip in





Location map

EXPLANATION

Holocene	Qal	QUATERNARY	Pliocene	Tg	TERTIARY	
	Alluvium and fluvial terrace deposits			Goliad Sand		
	Pleistocene			Qb		Tf
				Beaumont Clay		Fleming Formation
Ql		To				
Lissie Formation		Oakville Sandstone				
Qw		Tcs	Catahoula Sandstone (Tuff)			
Willis Sand		Tj	Jackson Group			
		Eocene				

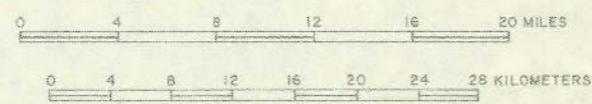
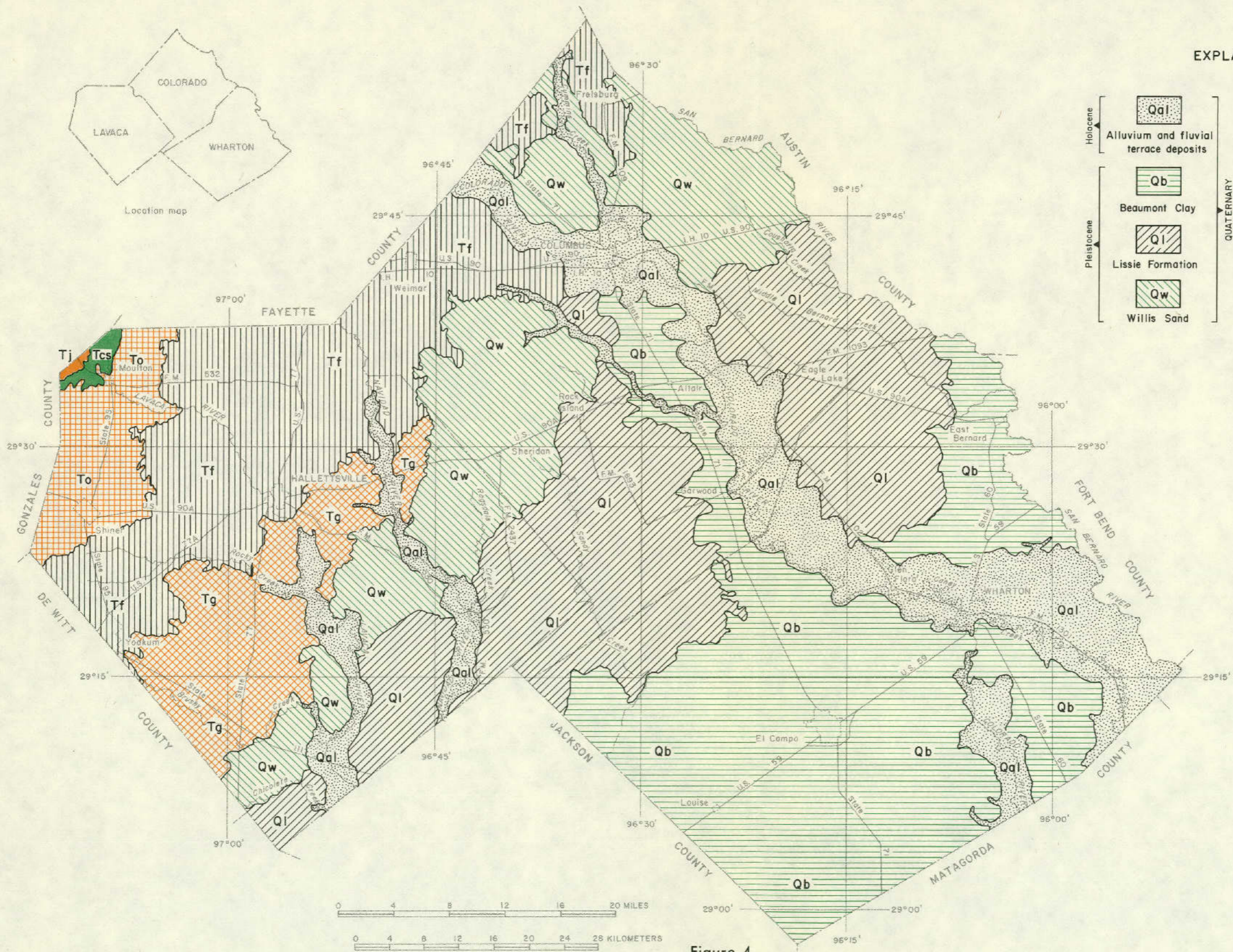


Figure 4  
Geology of Colorado, Lavaca, and Wharton Counties

Base from U.S. Geological Survey topographic quadrangles

Geology from the University of Texas, Bureau of Economic Geology, Atlas of Texas, 1968, 1974, 1975



Table 1.--Correlation of geologic and hydrologic units

System	Geologic classification		Colorado, Lavaca, and Wharton Counties	Houston district (Wood and Gabrysch, 1965)	Houston district (Jorgensen, 1975)		Brazoria County (Sandeen and Wesselman, 1973)		Austin and Waller Counties (Wilson, 1967)		Galveston County (Petitt and Winslow, 1957)		Houston district (Lang, Winslow, and White, 1950)		Fort Bend County (Wesselman, 1972)					
	Series	Stratigraphic unit			Upper unit	Lower unit	Upper unit	Lower unit	Beach and dune sand	Alluvial deposits	Upper unit	Lower unit								
QUATERNARY	Pleistocene and Holocene	Quaternary alluvium	Chicot aquifer	"Confining" layer and Alta Loma Sand of Rose of Rose (1943)	Chicot aquifer	Upper unit	Chicot aquifer	Upper unit	Alluvium of the Brazos River	Beach and dune sand	Alluvial deposits	Chicot aquifer	Upper unit							
		Beaumont Clay																		
		Lissie Formation												Montgomery Formation						
		Bentley Formation																		
			Willis Sand		Heavily pumped layer															
	TERTIARY	Pliocene	Coliad Sand	Evangeline aquifer			Evangeline aquifer		Evangeline aquifer	(May contain unidentified parts of basal Chicot aquifer along the edges of Brazos River flood plain or along southern part of both counties)	Lissie Formation	Zone 7 Zone 6 Zone 5 Zone 4 Zone 3 Zone 2 Zone 1	Evangeline aquifer							
		Miocene	Fleming Formation	Burkeville confining layer	Zone 2	Burkeville confining layer								Burkeville aquiclude				Burkeville aquiclude		
			Oakville Sandstone	Jasper aquifer		Jasper aquifer	Upper unit		Jasper aquifer									Jasper aquifer		
			Cataboula Sandstone (Tuff)	Upper Cataboula	Catshoula Sandstone (designated as Tuff west of Colorado County)			Lower unit												
"Anahuac" Formation																				
			"Frio" Formation																	
Eocene		Jackson Group	Whitsett Formation	Jackson Group																

Wharton County. The average range in thickness within the zones of fresh to slightly saline water is about 200 to 800 feet (61 to 240 m).

The transmissivity values for the Jasper aquifer (Table 2), which were calculated by using the Theis equation (Wenzel, 1942, p. 94-97) and measurements of the recovery of water levels in four pumped wells in Lavaca County (Table 2), ranged from 500 to 1,250  $\text{ft}^2/\text{d}$  (45 to 115  $\text{m}^2/\text{d}$ ). The storage-coefficient values were not determined. In parts of the geohydrologic sections (Figures 5-8), the Jasper aquifer and the overlying Burkeville confining layer were combined because delineation of the units would be highly arbitrary.

The Jasper aquifer, which is a minor source of water in the three-county area, supplies small to moderate quantities of water to municipal supply, irrigation, rural-domestic, and livestock wells. Because both the Jasper and the Burkeville contain slightly saline to moderately saline water in most areas, and because they occur at depths of more than 2,500 feet (760 m) in southern Wharton County, they are not likely to be developed as major sources of ground-water supply in most of the three-county area.

### **Burkeville Confining Layer**

The Burkeville confining layer is composed mostly of clay but contains some layers of sand. In the subsurface, identification of the Burkeville is based on the sequences of clay layers, as determined from electrical logs, that act as regional impediments to the vertical flow of water. The thickness of the Burkeville confining layer (Figures 5-8) generally ranges from about 300 to 500 feet (90 to 150 m). Although the Burkeville is a confining layer down-dip from the outcrop, parts of the unit in the outcrop area and in the shallow subsurface contain sufficient amounts of saturated sand to supply small quantities of fresh to slightly saline water to rural-domestic and livestock wells.

### **Evangeline Aquifer**

The Evangeline aquifer consists of sand and clay layers in the Goliad Sand and in the upper part of the Fleming Formation (Figure 4 and Table 1). The altitude of the base of the Evangeline (Figure 9) was determined by interpretations of electrical logs, which indicate that the aquifer ranges in depth from the land surface at the outcrop to more than 2,300 feet (700 m) below NGVD (National Geodetic Vertical Datum or mean sea level) in southern Wharton County. The Evangeline aquifer is

present in the subsurface throughout most of Colorado, Lavaca, and Wharton Counties. It crops out in central Lavaca County and subcrops (overlapped by the Willis Formation) in central and northern Colorado County (Figure 4), but is absent in northwestern Lavaca County in the outcrop area of the Burkeville confining layer.

Within the three-county area, the Evangeline generally contains more sand than clay, and although some sands and clays are continuous throughout much of the area, the unit varies in total thickness from 0 in the outcrop area to about 1,500 feet (457 m) in the south-central part of Wharton County. The thicknesses of individual sand beds range from a few feet to about 100 feet (30 m) in the sequences that contain fresh and slightly saline water, and the aggregate thickness of the sand units is as much as 470 feet (143 m). The maximum thickness of the fresh-water section in the Evangeline is about 1,380 feet (420 m) in southeastern Wharton County. Fresh water occurs at depths of as much as 2,000 feet (610 m) in east-central Wharton County.

The hydraulic characteristics of the Evangeline aquifer in Colorado and Lavaca Counties were determined from aquifer-test data. Table 2 shows the transmissivities and hydraulic conductivities of the aquifer and the specific capacities of several wells. Storage coefficients were not determined. The transmissivities, as analyzed from aquifer tests by using the Theis equation, ranged from 480 to 3,400  $\text{ft}^2/\text{d}$  (45 to 320  $\text{m}^2/\text{d}$ ). Hydraulic conductivities ranged from 5.5  $\text{ft}/\text{d}$  (1.7  $\text{m}/\text{d}$ ) to about 24  $\text{ft}/\text{d}$  (7.3  $\text{m}/\text{d}$ ) and averaged about 12  $\text{ft}/\text{d}$  (3.7  $\text{m}/\text{d}$ ) in wells screened only in the Evangeline.

Twelve of the aquifer tests were made in wells that were screened in more than one aquifer. Nine of the tests were made in wells in which most of the screened sections were in the Evangeline aquifer, with lesser amounts of the screened sections in the Chicot aquifer. The transmissivities of the Evangeline and Chicot combined ranged from 3,800 to 9,900  $\text{ft}^2/\text{d}$  (353 to 920  $\text{m}^2/\text{d}$ ). A test in one well (DW-66-20-903) screened in the Evangeline, Burkeville, and Chicot indicated a transmissivity of only 1,000  $\text{ft}^2/\text{d}$  (93  $\text{m}^2/\text{d}$ ). Two other aquifer tests were made in wells screened mostly in the Chicot aquifer and partially screened in the Evangeline. The transmissivities determined in these tests averaged about 3,000  $\text{ft}^2/\text{d}$  (280  $\text{m}^2/\text{d}$ ).

### **Chicot Aquifer**

The Chicot aquifer, which consists mainly of discontinuous layers of sand and clay of about equal

Table 2.--Summary of aquifer tests in Colorado, Lavaca, and Wharton Counties  
 Water-bearing units: B--Burkeville confining layer, C--Chicot aquifer, E--Evangeline aquifer, J--Jasper aquifer.

Well	Date	Water-bearing unit	Intervals screened (feet below land surface)	Sand thickness (feet)	Transmissivity (ft <sup>2</sup> /d)	Hydraulic conductivity (ft/d)	Average pumping rate (gal/min)	Drawdown (feet)	Specific capacity [(gal/min)/ft]	Remarks
<u>COLORADO COUNTY</u>										
DW-66-20-505	11-17-72	E	65 feet slotted between 162-222 and 253-258 feet; gravel packed.	65	670	10	457	167	2.7 (7 hours)	30-minute recovery after pumping 10 hours.
602	2-21-68	E	79 feet slotted between 195-234 and 255-295 feet; gravel packed.	79	780	10	519	140	3.7 (1 hour)	30-minute recovery after pumping 4 hours.
903	8-10-53	E-B-C	788 feet of casing slotted between 115-903 feet; gravel packed.	180±	1,000	6	1,050	--	--	60-minute recovery after pumping 100 minutes.
21-301	6-28-75	E	400 feet of casing slotted between 400-800 feet; gravel packed.	--	3,400	--	530	12.4	42.7 (1 hour)	93-minute recovery after pumping 2 hours.
601	7-21-75	E-C	Casing slotted from 200-915 feet; gravel packed.	300±	7,380	25	2,000	--	--	60-minute recovery after pumping 2 days.
28-303	3-22-65	E	291 feet of casing slotted between 276-854 feet; gravel packed.	291	3,130	11	1,210	--	--	30-minute recovery after pumping 8 hours.
901	7-15-55	C-E	350 feet of casing slotted between 105-601 feet; gravel packed.	250±	3,050	12	1,200	--	--	60-minute recovery after pumping 2 hours.
30-101	12-28-55	E-C	110 feet of screen between 360-385, 405-420, 440-460, 470-485, and 490-525 feet; gravel packed.	135	4,000	30	625	--	10.6 (5 hours)	80-minute recovery after pumping 4 2/3 hours.
102	do.	E-C	115 feet of screen between 351-362, 365-407, 441-481, and 489-511 feet; gravel packed.	125	6,380	51	--	--	--	Interference test; 60-minute recovery after pumping well DW-66-30-101 for 4 2/3 hours.
203	6-19-75	E-C	Casing slotted between 340-806 feet; gravel packed.	220	9,860	45	2,642	109	26.4 (1 hour)	8 1/2-hour drawdown test.
35-304	9-28-65	E	97 feet of casing slotted between 695-722, 726-736, 756-796, and 800-820 feet; underreamed and gravel packed.	90	1,400	16	412	1/72.5	5.7 (1 hour)	30-minute recovery after pumping 8 hours.
37-204	10-27-70	E-C	370 feet of casing slotted between 350-1010 feet; gravel packed.	370	3,780	10	3,002	167	18.0 (1 hour)	30-minute recovery after pumping 8 hours.
<u>LAVACA COUNTY</u>										
RY-66-33-307	6- 5-64	J	155 feet slotted between 290-620 feet; underreamed and gravel packed.	--	760	5	508	110	4.6 (1 hour)	30-minute recovery after pumping 12 hours.
35-902	7-20-55	C-E	387 feet slotted between 172-559 feet; gravel packed.	173	2,940	17	950	--	--	1-hour recovery after pumping 12 hours.
42-502	6-20-64	E	64 feet slotted between 747-757 and 791-845 feet; underreamed and gravel packed.	64	480	8	376	--	--	30-minute recovery after pumping 4 hours.
903	6-18-75	E	Casing slotted opposite sands between 290-737 feet; gravel packed.	320±	1,750	6	1,203	1/103	11.7 (1 hour)	90-minute recovery after pumping well 4 days.

1/ 1-hour recovery.

Table 2.--Summary of aquifer tests in Colorado, Lavaca, and Wharton Counties--Continued

Well	Date	Water-bearing unit	Intervals screened (feet below land surface)	Sand thickness (feet)	Transmissivity (ft <sup>2</sup> /d)	Hydraulic conductivity (ft/d)	Average pumping rate (gal/min)	Drawdown (feet)	Specific capacity [(gal/min)/ft]	Remarks
<u>LAVACA COUNTY--Continued</u>										
RY-66-43-203	4-23-54	C	69 feet slotted between 250-273, 320-343, and 395-415; underreamed and gravel packed.	69	2,000	29	577	--	--	30-minute recovery after pumping 12 hours.
50-401	1- 5-51	E-C	517 feet slotted opposite sands between 187-880 feet; gravel packed.	280+	4,970	18	2,650	106	25 (1 hour)	15-minute recovery after pumping 6 hours.
502	11-21-50	E-C	299 feet slotted between 153-641 feet; gravel packed.	299	4,290	14	2,435	100	19.6 (1 hour)	20-minute recovery after pumping 8 hours (average discharge after 1 hour, 1955 gal/min--used for 1 hour specific capacity).
57-201	6-12-64	E-C	Casing slotted between 234-584 feet; gravel packed.	350	6,020	17	1,020	28	36.3 (1 hour)	102-minute recovery after pumping 60 hours.
67-31-606	10-14-71	J	90 feet screened between 180-200, 245-275, and 285-325 feet; gravel packed.	90	500	6	210	53	4.0 (1 hour)	30-minute recovery after pumping 8 hours.
39-509	9-27-72	J	Nine sections of screen between 610-935; underreamed and gravel packed.	150	1,250	8	500	117	4.3 (1 hour)	30-minute recovery after pumping 8 hours.
510	6-16-63	J	Seven sections of slotted casing between 754-975 feet; underreamed and gravel packed.	121	500	4	351	62	5.7 (1 hour)	30-minute recovery after pumping 8 hours.
48-703	5- 7-69	E	Casing slotted between 320-430 feet; gravel packed.	93	2,220	24	456	--	--	2-hour recovery after pumping 2 hours.
<u>WHARTON COUNTY</u>										
ZA-66-31-901	6-20-75	C	35 feet of casing slotted between 100-135 feet; gravel packed.	65	13,800	212	223	--	--	3-hour recovery after pumping 4 days.
902	7-26-55	C	12 feet of casing slotted between 40-52 feet.	--	25,500-46,400	--	420	<u>1</u> /17.9	23.4 (1 hour)	1-hour recovery after pumping 26 hours.
903	do.	C	315 feet of casing slotted between 40-50 and 100-405 feet.	300+	9,040	30	1,370	--	--	1-hour recovery after pumping 14 days.
906	10-19-55	E	87 feet of casing slotted between 860-897, 935-970, and 975-990 feet.	100	1,130	11	146	--	--	Recovery of pumped well.
38-303	6-24-75	C	432 feet of casing slotted between 223-655 feet; gravel packed.	225	45,630	203	2,650	--	--	7-hour, 50-minute recovery, first reading taken 4 hours after pumping stopped.
45-201	7-21-55	C	Slotted 0-257 feet; gravel packed.	235	27,000-	115	1,650	--	--	1-hour recovery after pumping 24 hours.
804	7-11-55	C	278 feet of casing slotted between 110-388 feet; gravel packed.	278	16,440	59	1,675	<u>1</u> /36.1	46.5 (4 days)	1-hour recovery after pumping 4 days.

1/ 1-hour recovery.



Table 2.--Summary of aquifer tests in Colorado, Lavaca, and Wharton Counties--Continued

Well	Date	Water-bearing unit	Intervals screened (feet below land surface)	Sand thickness (feet)	Transmissivity (ft <sup>2</sup> /d)	Hydraulic conductivity (ft/d)	Average pumping rate (gal/min)	Drawdown (feet)	Specific capacity [(gal/min)/ft]	Remarks
WHARTON COUNTY--Continued										
ZA-66-46-402	7-12-55	C	266 feet of casing slotted between 100-366 feet; gravel packed.	250±	32,100	128	3,100	1/20.8	149.0 (1 hour)	1-hour recovery after pumping 3 weeks.
48-904	7-26-55	C	275 feet of casing slotted between 95-370 feet; gravel packed.	204	17,900	88	1,710	31.1	55.0 (60 days)	1-hour recovery after pumping 3 weeks.
54-601	10-19-55	E-C	165 feet of screen between 690-725, 755-775, 842-855, 880-925, 970-1002, and 1065-1085; gravel packed.	171	4,800	28	1,090	--	9.0 (1 hour)	Recovery of pumped well.
603	10-21-55	E	285 feet of screen between 790-1265 feet; gravel packed.	297	2,860	10	625	--	7.9 (2 hours)	Recovery of pumped well.
55-103	6-5-55	C	240 feet of casing slotted between 260-500 feet; gravel packed.	180±	10,600	59	1,150	35.5	32.4 (1 hour)	2-hour, 59-minute recovery test after 4-hour, 56-minute pump test.
61-302	6-17-75	C	65 feet of screen between 400-440 and 503-528 feet; gravel packed.	75	3,880-8,640	52-115	--	12.6	--	Interference test; 150-minute recovery test after pumping well ZA-66-61-309 for 70 minutes. The storage coefficient is 0.0018.
305	7-14-55	C	369 feet of casing slotted between 134-599 feet; gravel packed.	230	15,100	66	2,100	25.3	83.0 (2 days)	63-minute recovery after pumping 48 hours.
309	6-17-75	C	100 feet of screen between 95-110, 175-195, 245-260, 280-315, and 335-350 feet; gravel packed.	120	3,000-7,420	25-62	820	52.8	15.5 (1 hour)	150-minute recovery after pumping 70 minutes.
62-709	6-25-75	C	585 feet of casing slotted between 200-785 feet; gravel packed.	251	16,070	64	2,276	--	--	2 1/2-hour recovery test after pumping 24 hours.
713	do.	C	Casing slotted from about 200-690 feet.	211±	19,080	90	--	--	--	Interference test; 2 1/2-hour recovery test after pumping well ZA-66-62-709 for 24 hours. (Bottom part of well may be collapsed.)
904	7-18-55	C	307 feet of casing slotted between 162-289, 352-452, 467-527, and 553-573 feet; gravel packed.	278	13,400	48	1,430	21.0	68.1 (14 days)	1-hour recovery test after pumping 2 weeks.
63-201	7-14-55	C	Slotted at all sand intervals between 116-594 feet; gravel packed.	361	19,100	53	1,760	23.3	75.5 (1 hour)	1-hour recovery test after pumping 75 hours.

1/ 1-hour recovery.



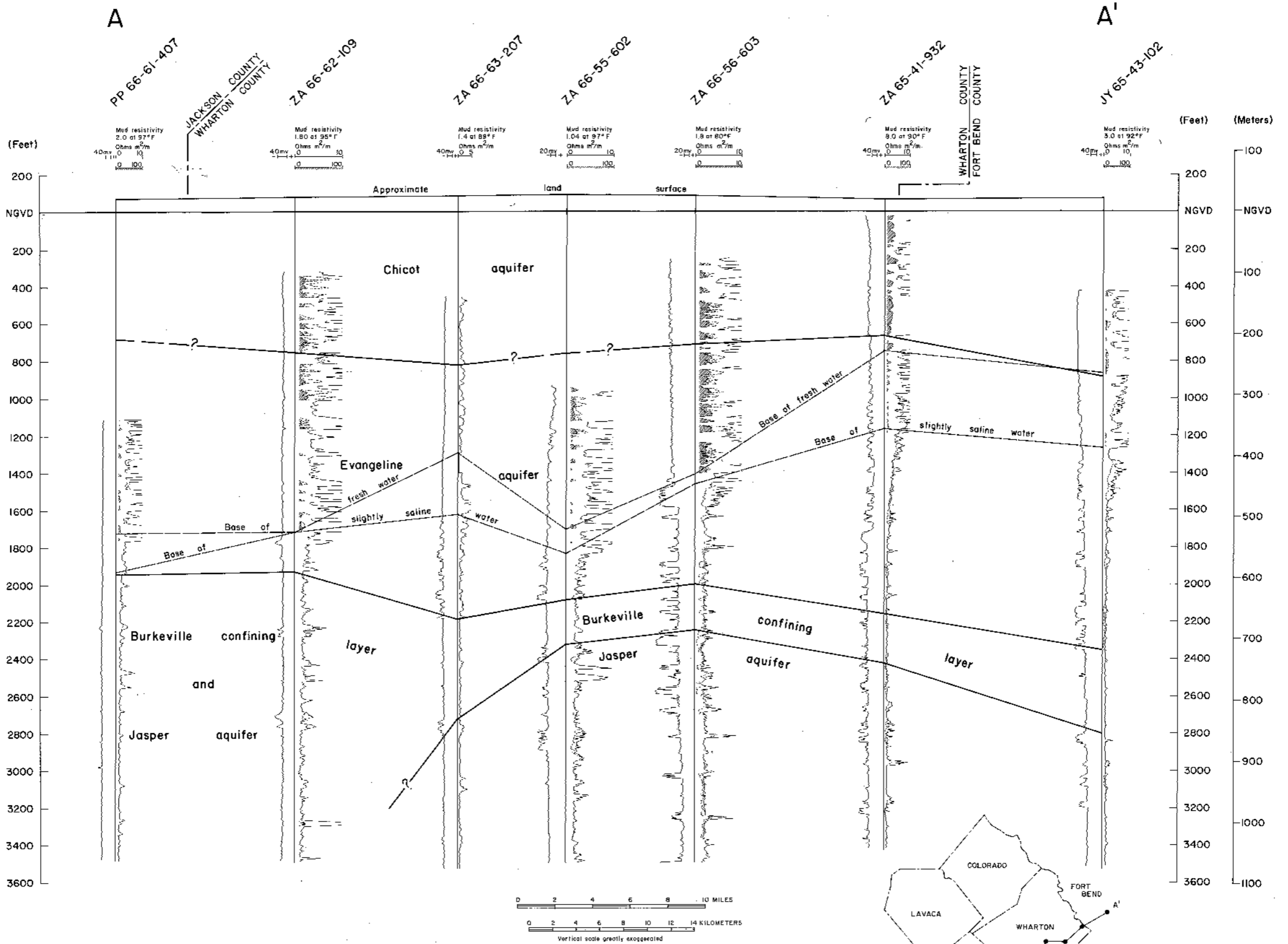


Figure 5

Geohydrologic Section A-A', Jackson, Wharton, and Fort Bend Counties

NOTE: The term "NGVD" or "NATIONAL GEODETIC VERTICAL DATUM" has been adopted by the National Geodetic Survey to replace the term "MEAN SEA LEVEL"



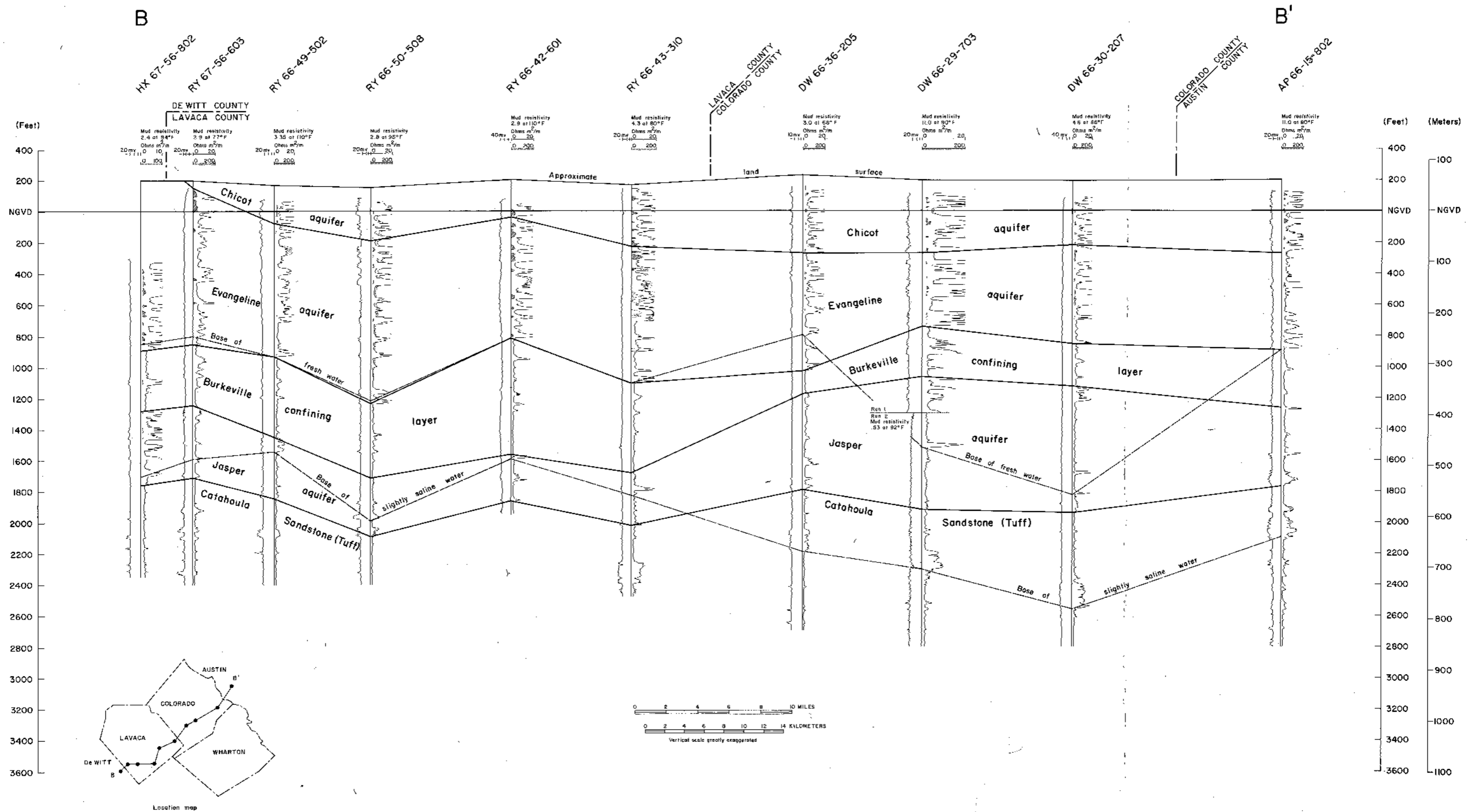


Figure 6  
 Geohydrologic Section B-B', DeWitt, Lavaca, Colorado, and Austin Counties



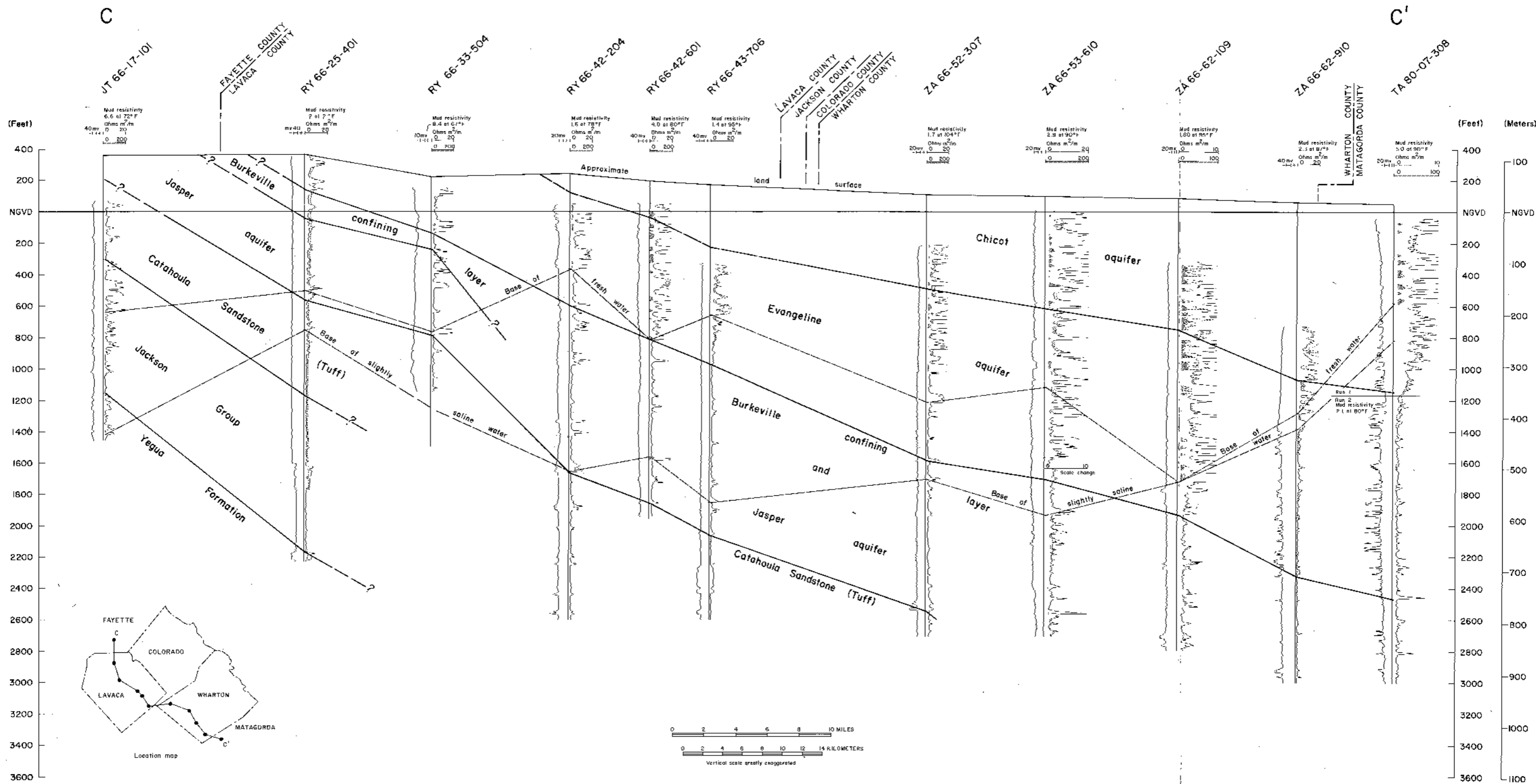


Figure 7  
 Geohydrologic Section C-C', Fayette, Lavaca, Wharton, and Matagorda Counties





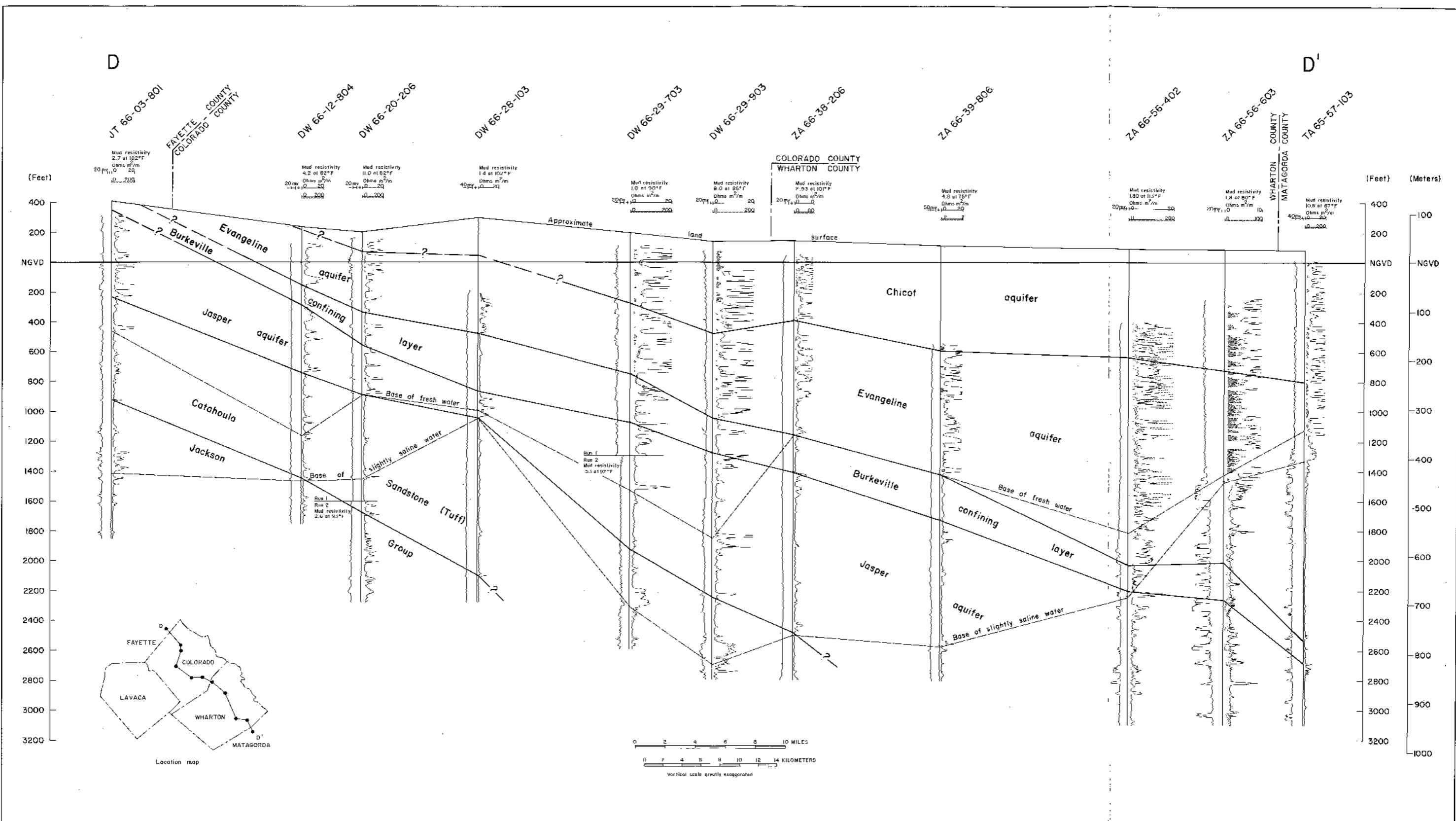
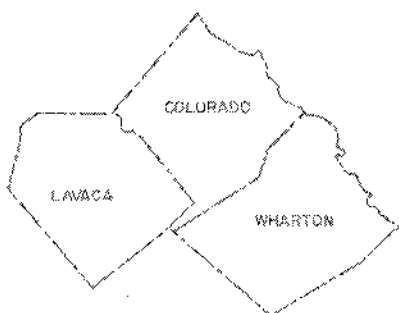


Figure 8  
 Geohydrologic Section D-D', Fayette, Colorado, Wharton,  
 and Matagorda Counties

NOTE: The term "NGVD" or "NATIONAL GEODETIC VERTICAL DATUM" has been adopted by the National Geodetic Survey to replace the term "MEAN SEA LEVEL"





**EXPLANATION**

○ -1210  
 WELL USED FOR CONTROL--Number indicates altitude of the base of the Evangeline aquifer

---1200--- STRUCTURE CONTOUR--Shows approximate altitude of the base of the Evangeline aquifer. Dashed where approximately located. Contour interval 100 feet (30 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

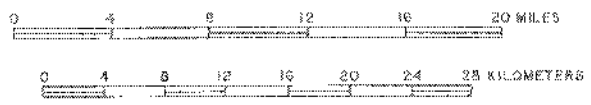
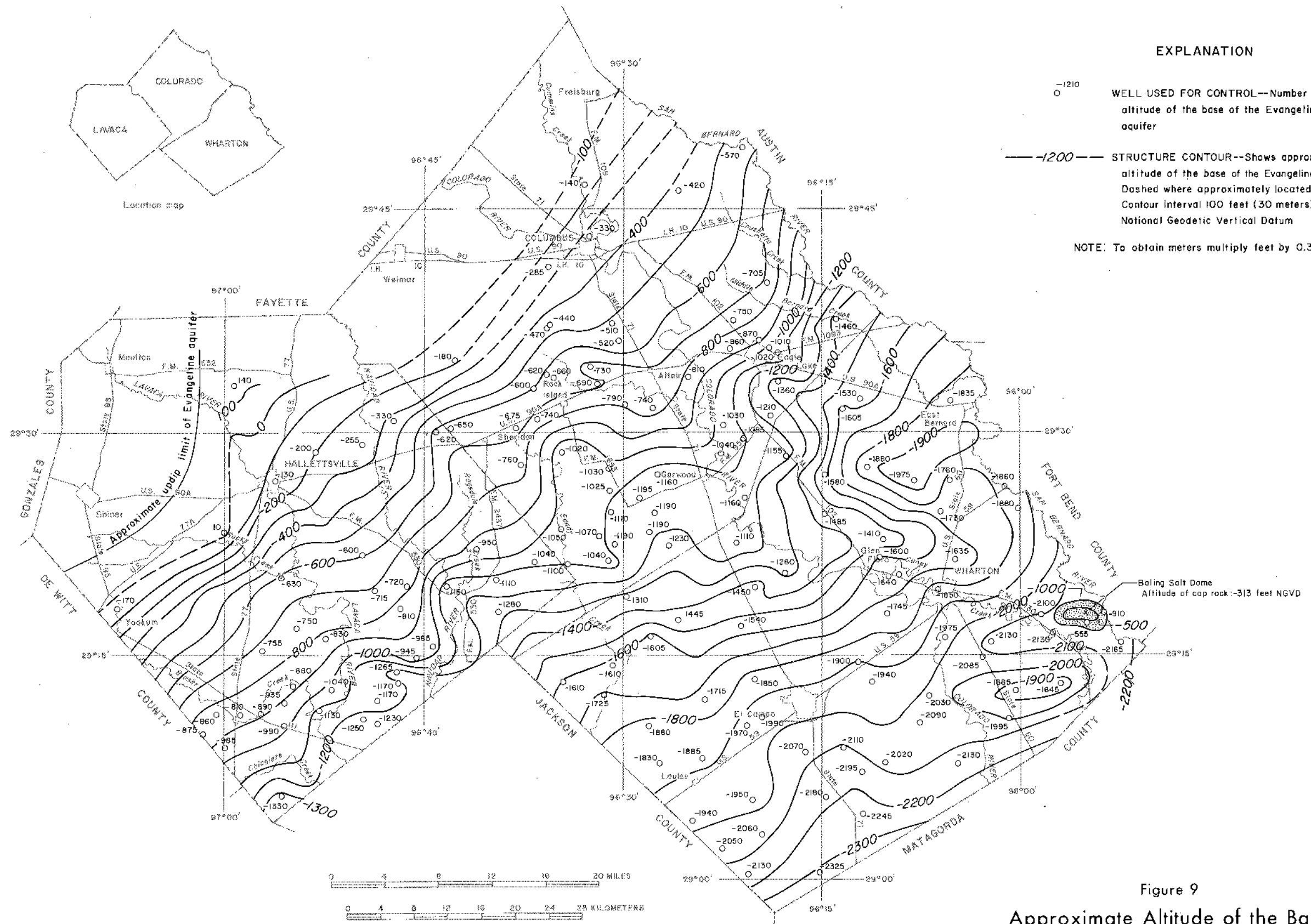


Figure 9  
 Approximate Altitude of the Base of the Evangeline Aquifer

Base from U.S. Geological Survey topographic quadrangles



thickness, is the main source of ground water in the three-county area. The Chicot aquifer overlies the Evangeline aquifer and is composed of water-bearing units in the Willis Sand, Lissie Formation, Beaumont Clay, and Quaternary alluvium (Figure 4 and Table 1). The Chicot includes all deposits from the land surface to the top of the Evangeline aquifer (Figures 5-8), and all of the deposits contain fresh water in Colorado, Lavaca, and Wharton Counties. The base of the Chicot aquifer, as determined from interpretations of electrical logs, ranges in altitude from the land surface at the outcrop to more than 1,100 feet (335 m) below NGVD in southern Wharton County (Figure 10).

On the basis of interpretations of electrical logs, the Chicot ranges in thickness from 0 in the outcrop areas to more than 1,000 feet (305 m) in southern Wharton County. The thicknesses of individual sand units in the aquifer range from a few feet to about 500 feet (152 m).

The Chicot and Evangeline aquifers generally are in hydraulic continuity, and it is difficult to differentiate the two units. Delineation of the Chicot in the subsurface is based in part on a higher sand-clay ratio in the Chicot than in the underlying Evangeline and in part on the differences in hydraulic conductivity because the Chicot generally has higher values of hydraulic conductivity than the Evangeline.

The combined thicknesses of the fresh-water sands in the Chicot and Evangeline aquifers range from 0 at the outcrop to more than 850 feet (259 m) in Wharton County. The average sand thickness is about 250 feet (76 m) in the Chicot aquifer and about 200 feet (61 m) in the Evangeline aquifer.

The hydraulic characteristics of the Chicot aquifer in parts of the three-county area were determined from aquifer-test data. Table 2 shows the transmissivities and hydraulic conductivities of the aquifer and the specific capacities of selected wells. The transmissivities range from 2,000 ft<sup>2</sup>/d (185 m<sup>2</sup>/d) to more than 46,000 ft<sup>2</sup>/d (4,300 m<sup>2</sup>/d). Hydraulic conductivities range from 29.0 ft/d (8.8 m/d) to more than 200 ft/d (61 m/d), and average about 80 ft/d (24.4 m/d).

## RECHARGE, MOVEMENT, AND DISCHARGE OF GROUND WATER

### Recharge to Aquifers

The principal source of recharge to the aquifers in Colorado, Lavaca, and Wharton Counties is the

infiltration of rainfall in the outcrop areas. The sand units composing the Chicot aquifer (excluding those in the Beaumont Clay) crop out and are recharged within an area of about 1,100 square miles (2,850 km<sup>2</sup>) in northern Wharton County, in the eastern and southern parts of Lavaca County, and in most of Colorado County. Approximately 4 inches (102 mm) of rainfall infiltration would be required to replace the ground-water withdrawals from the Chicot aquifer in 1974 of 207 million gal/d (780,000 m<sup>3</sup>/d). The Evangeline aquifer is recharged by the infiltration of rainfall in an outcrop area of about 600 square miles (1,550 km<sup>2</sup>) in central Lavaca County, and in an undetermined area in Colorado County where the aquifer is overlapped by younger formations. About 1 inch (25 mm) or less of infiltration would be required to equal the 43 million gal/d (163,000 m<sup>3</sup>/d) of water pumped from the Evangeline aquifer in 1974. A fraction of an inch of infiltration would be required to equal about 2 million gal/d (7,500 m<sup>3</sup>/d) that was withdrawn from the other aquifers in 1974.

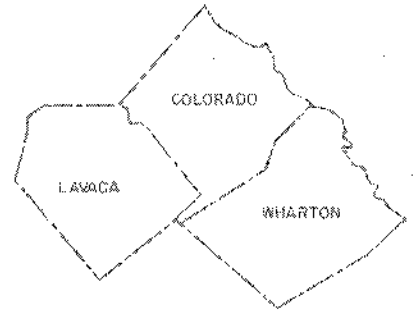
The quantities of water that are available as natural recharge to the Chicot and Evangeline aquifers in the three-county area have been approximated to be about 78,000 acre-feet (96 hm<sup>3</sup>) per year for the Chicot and 38,000 acre-feet (47 hm<sup>3</sup>) per year for the Evangeline. Inherent in these approximations of potential recharge are increments of water that originally moved as recharge through the aquifers prior to development by wells and water that entered the outcrops of the aquifers as recharge but was discharged to streams. The derivations of the quantities of potential recharge and the significance of these quantities are given in the section of this report on "Fresh water available for development."

### Ground-Water Movement

Ground water moves under the influence of gravity from areas of recharge to areas of discharge. Before development of the aquifers in Colorado, Lavaca, and Wharton Counties began, the general direction of water movement was down gradient from the outcrop areas toward the Gulf of Mexico and toward areas of discharge along the major drainage systems such as the Colorado River. In some places ground-water pumping for municipal supply, industrial use, and irrigation has created cones of depression in the potentiometric surface; and in these areas, ground water moves from all directions toward the center of the cones of depression.

The rate of movement of ground water depends upon the effective porosity and hydraulic conductivity of the aquifer and the hydraulic gradient. In Colorado,





Location map

**EXPLANATION**

○ -680  
WELL USED FOR CONTROL--Number indicates altitude of the base of the Chicot aquifer

--- 600 --- STRUCTURE CONTOUR--Shows approximate altitude of the base of the Chicot aquifer. Dashed where approximately located. Contour interval 100 feet (30 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

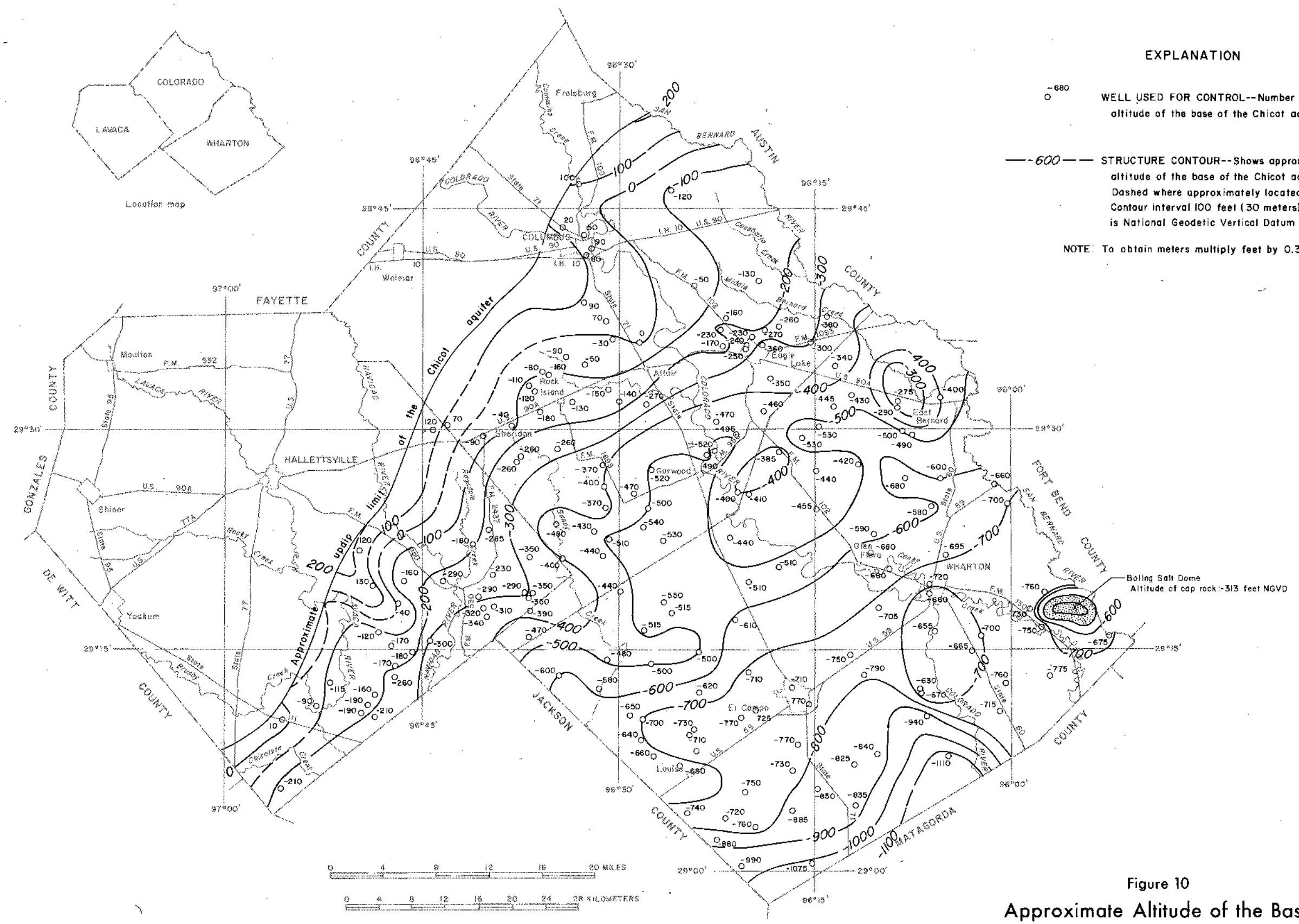


Figure 10

Approximate Altitude of the Base of the Chicot Aquifer

Base from U.S. Geological Survey topographic quadrangles





Lavaca, and Wharton Counties, the rate of movement of ground water ranges from tens of feet to hundreds of feet per year. The average rate of ground-water movement in the Chicot aquifer is approximately 75 feet (23 m) per year. This value is based on calculations using an average hydraulic gradient of 4 ft/mi (0.8 m/km), a porosity of 30 percent, and an average hydraulic conductivity of 81 ft/d (25 m/d), as determined from aquifer-test data.

An average rate of ground-water movement of 37 feet (11 m) per year for all aquifers was calculated by using an average hydraulic conductivity of about 40 ft/d (12 m/d). The rates of movement near pumping wells are much greater than the calculated averages because the hydraulic gradients near the wells are much steeper than the regional hydraulic gradients.

### Discharge from Aquifers

Ground water is discharged naturally through seeps and springs and by evaporation and transpiration from the water table part of the aquifers. Evaporation is more significant during summer months when the rice fields are flooded with water pumped from the aquifers. Ground water is discharged artificially by wells, drainage ditches, gravel pits, and other manmade structures that intersect the water table. In 1974, the total amount of water pumped by wells was about 280,000 acre-feet (345 hm<sup>3</sup>), or about 252 million gal/d (954,000 m<sup>3</sup>/d).

Until ground-water pumping lowered the original water levels in the aquifers, the perennial streams in the area received significant amounts of ground water that was discharged near the outcrops of the aquifers. Ground water was discharged because the water table was above the level of the streambeds and the recharge rate exceeded the capacity of the sands to transmit the water into the artesian parts of the aquifers. Presently, the streams in some areas are receiving considerably less water than originally.

### GROUND-WATER USE AND EFFECTS OF PUMPING

Although little is known about ground-water usage in Colorado, Lavaca, and Wharton Counties prior to 1900, some aspects of development may be inferred from the history of the area. Taylor (1907) reported several flowing wells in the three-county area; and George (1936), May (1938), and Cromack (1940), confirmed the occurrence of flowing wells. Water flowing from wells in Lavaca County originated from the Jasper aquifer, while water from most flowing wells in Colorado County and from two flowing wells in

Wharton County originated from the Evangeline aquifer. Water from one flowing well in Wharton County originated from the Chicot aquifer. Most wells ceased flowing by the mid-1940's after ground-water pumping had lowered the artesian pressures.

Most of the ground water pumped in the three-county area is used for rice irrigation, but minor amounts are used for irrigation of cotton and maize. A total of about 260,000 acre-feet (320 hm<sup>3</sup>) was pumped for irrigation in 1974, and approximately two-thirds of this amount was used in Wharton County. The second largest use of ground water is for sulfur production at the Boling Salt Dome in Wharton County. Industrial use of ground water in Lavaca and Colorado Counties is insignificant because in 1974, only 13,000 acre-feet (16 hm<sup>3</sup>) of water was pumped for industrial use in the three counties.

Ground water is the only source of water for municipal supply in the three-county area, and the total amount pumped for this purpose in 1974 was 6,400 acre-feet (7.9 hm<sup>3</sup>). There was no significant pumping of ground water for municipal supply in Colorado County before about 1938 or before about 1910 in Wharton County. Pumping for municipal supply has increased only slightly in Lavaca County since 1948, which is the earliest date of available data.

Ground-water pumping for all uses has increased significantly since the 1940's, and in the early to mid-1950's ground-water pumping sharply increased with the introduction of the two-crop rice season. The daily withdrawals of ground water for all uses in 1974 were about 252 million gal/d (954,000 m<sup>3</sup>/d), and the total withdrawals in 1974 were about 280,000 acre-feet (345 hm<sup>3</sup>).

The net annual depletion of water from the aquifers in the three-county area is equal to the pumpage minus the amount of natural recharge and return flow from irrigation. In a study of return flow from rice irrigation in Colorado County, Tuck (1974) estimated that about 30 percent of the water used for rice irrigation returns as surface flow to the drainage system and is available for downstream reuse and recharge. An undetermined amount of water infiltrates to the aquifers directly from the flooded rice fields.

Figures 11-13 show the approximate withdrawals of ground water from the Chicot and Evangeline aquifers in each of the three counties, and show that most of the ground water is pumped from the Chicot aquifer. Of the total of about 280,000 acre-feet (345 hm<sup>3</sup>) of ground water used in 1974, approximately 82 percent was withdrawn from the Chicot aquifer, 17 percent from the

Evangeline aquifer, and 1 percent from the Jasper aquifer. In Wharton County, the Chicot aquifer supplied approximately 97 percent of the ground water used for all purposes, and the remaining 3 percent was pumped from the Evangeline aquifer.

In Colorado County, there is a more even distribution of ground-water pumping from the aquifers. The Evangeline aquifer crops out in Colorado County and the Chicot aquifer is much thinner than in Wharton County; consequently, many wells in Colorado County

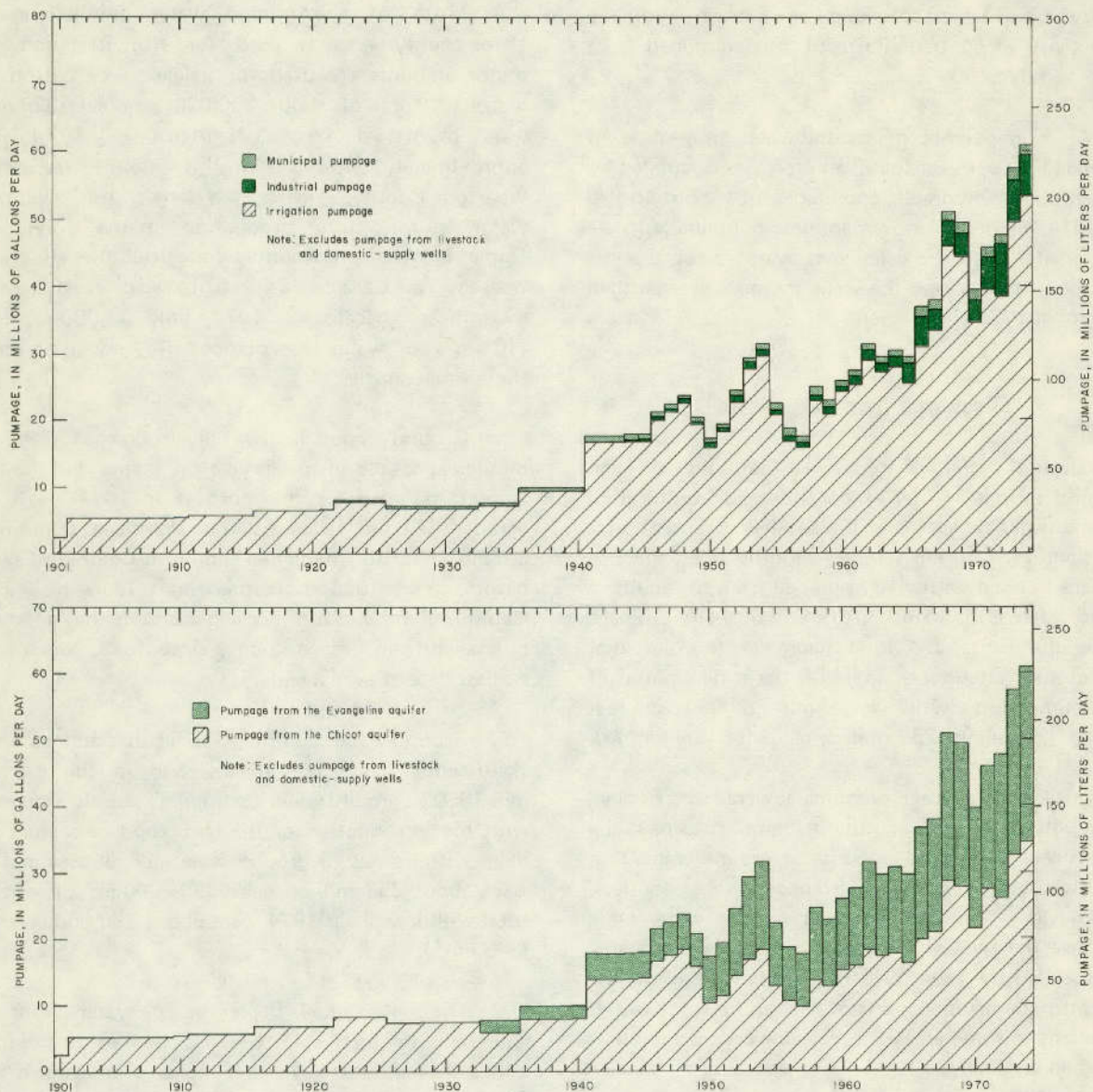


Figure 11.—Approximate Withdrawals of Ground Water By Usage and By Aquifer in Colorado County, 1901-74

pump water from the Evangeline. Approximately 56 percent of the water used for all purposes in Colorado County is pumped from the Chicot aquifer and about 44 percent is pumped from the Evangeline aquifer.

In Lavaca County, which extends westward beyond the outcrops of the Chicot and Evangeline aquifers, some water is obtained from the Jasper aquifer. About 44 percent of the ground water used for all purposes in

Lavaca County is pumped from the Chicot aquifer, 48 percent is pumped from the Evangeline aquifer, and about 8 percent is pumped from the Jasper aquifer.

Before large-scale withdrawals of ground water began in Colorado, Lavaca, and Wharton Counties, a natural equilibrium existed in the aquifers. Recharge from the infiltration of rainfall equaled the amount of natural discharge of ground water, and water levels were

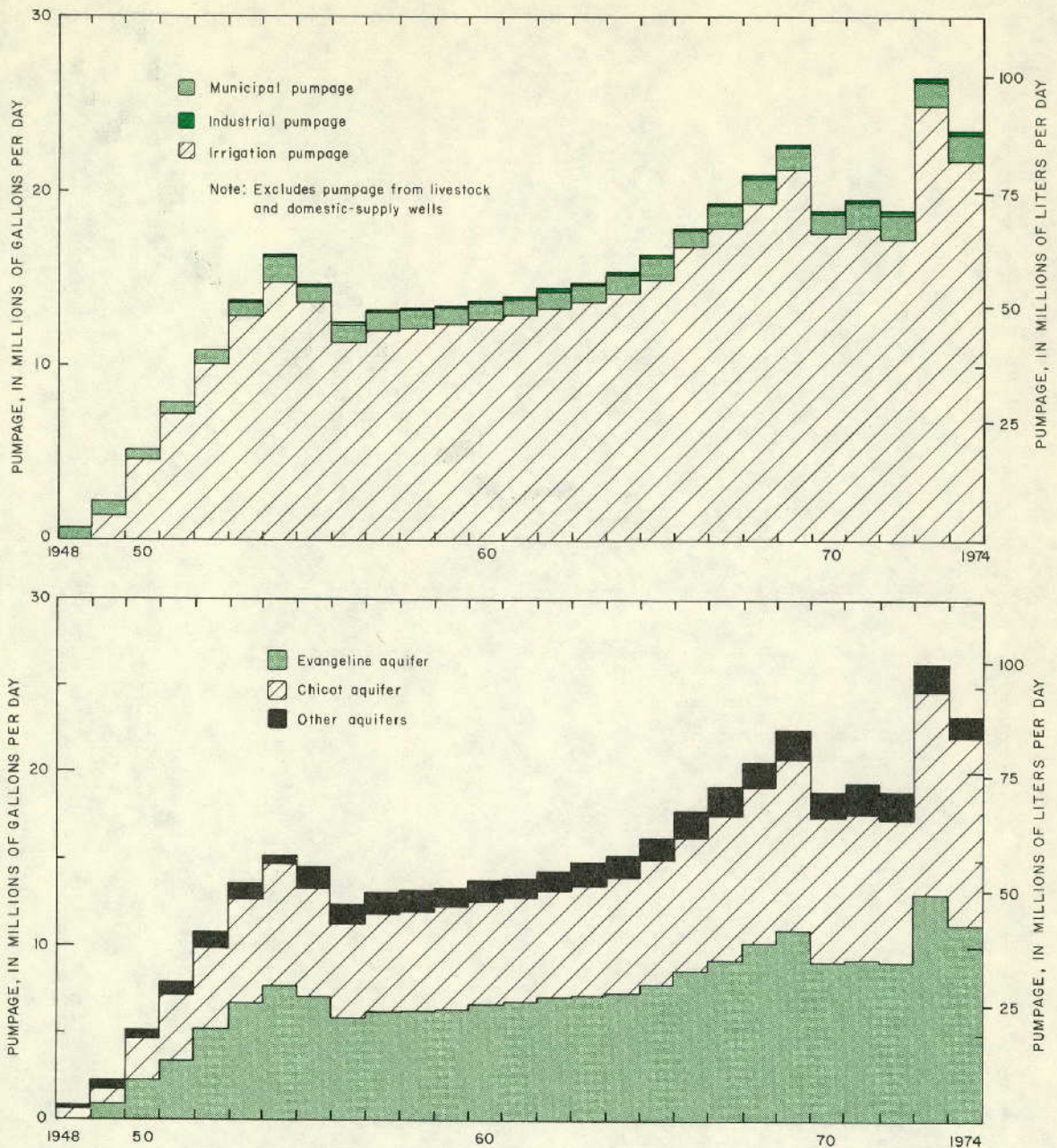


Figure 12.—Approximate Withdrawals of Ground Water By Usage and By Aquifer in Lavaca County, 1948-74

relatively stable. By using approximate well locations for most of the well records given by Taylor (1902), Figure 14 was prepared to show the approximate altitudes of water levels in shallow wells in the Chicot aquifer in 1902. Because of insufficient data, the water-level contours were not extended into Lavaca County or most of Colorado County. Water levels in three wells measured before 1930 were included in the construction of the map because the exact locations of these wells were available. It was assumed that the original potentiometric surface of the Evangeline aquifer was slightly higher than that of the Chicot aquifer.

By 1934-37, ground-water studies in Colorado, Lavaca, and Wharton Counties provided enough data, including the exact locations of wells and a greater number of water-level measurements, to construct a much more detailed water-level contour map of the Chicot and Evangeline aquifers (Figure 15). A comparison of Figure 15 with Figure 14 shows little change in the altitudes of the potentiometric surfaces from the early 1900's to the mid-1930's. Although no cones of depression are apparent, the potentiometric surface appears to have declined slightly in the El Campo-Pierce area and in the southern part of Colorado

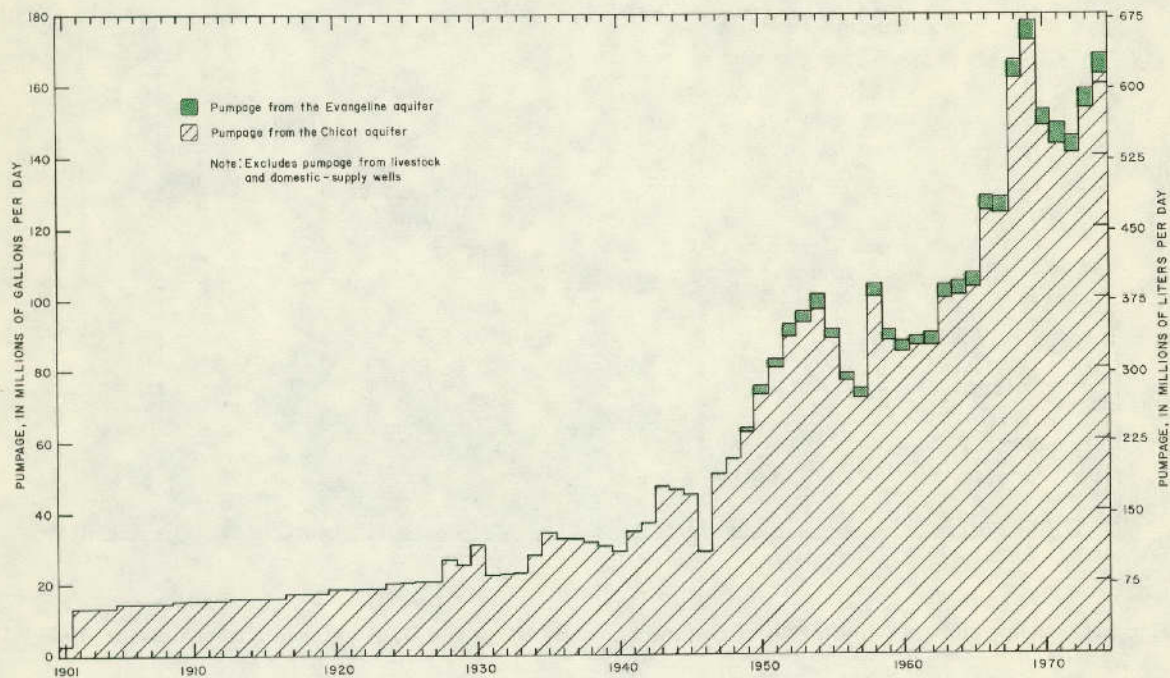
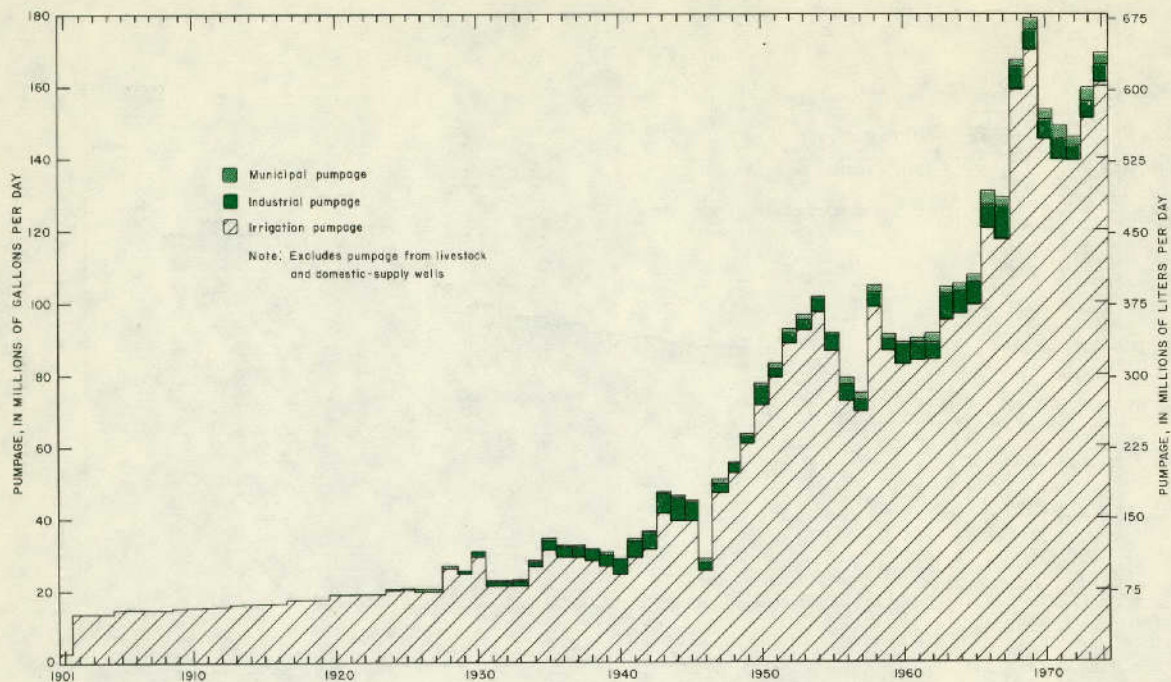


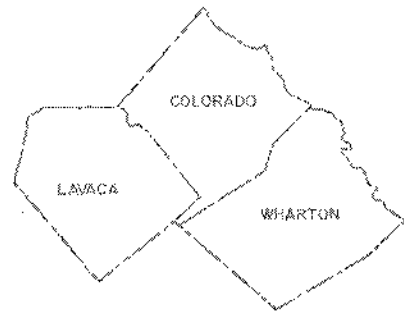
Figure 13.—Approximate Withdrawals of Ground Water By Usage and By Aquifer in Wharton County, 1901-74

County. By 1947, the water-level declines had become more pronounced (Figure 15).

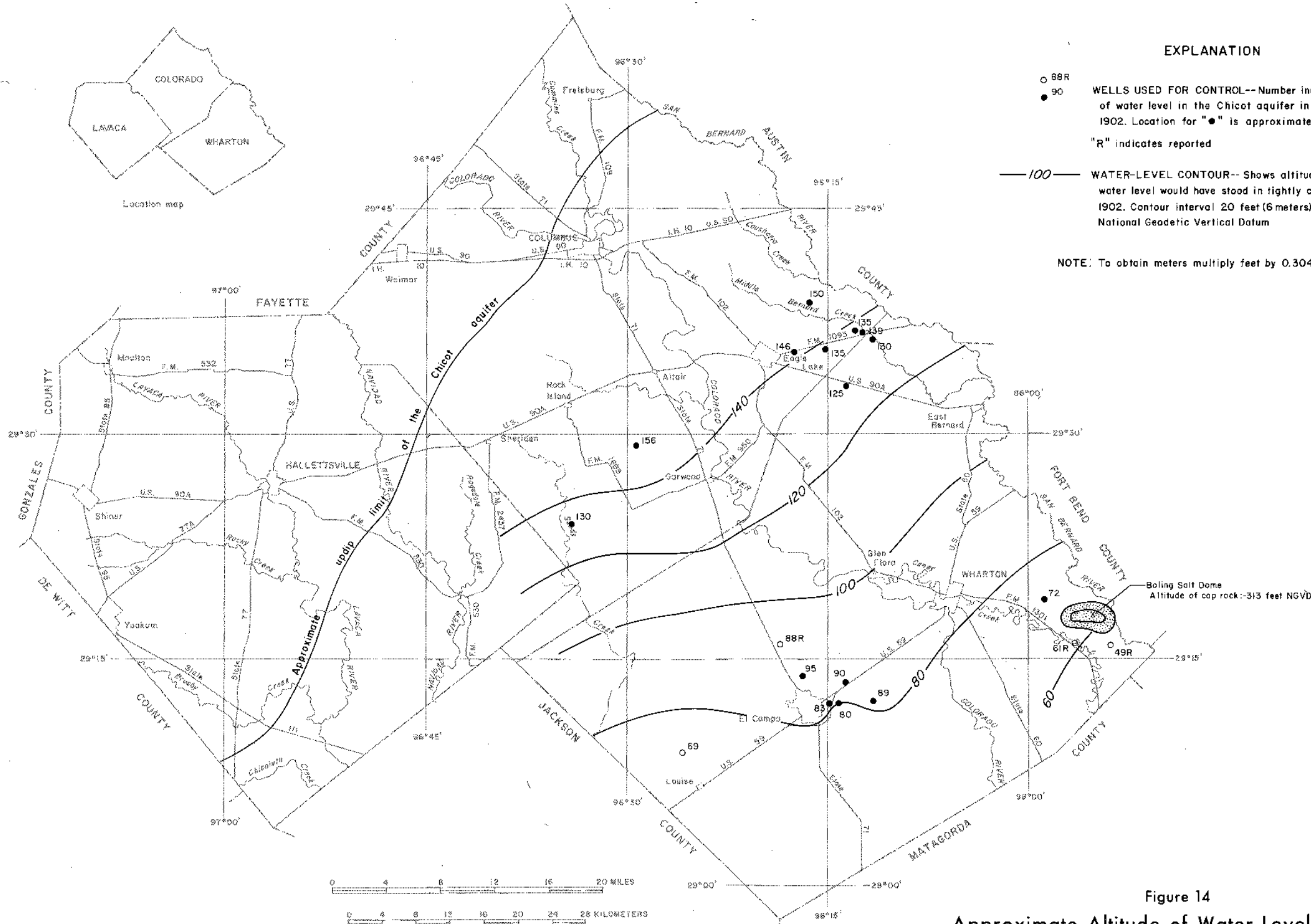
By 1959-60, records of water-level measurements were sufficient to map the potentiometric surface of the Chicot aquifer separately (Figure 16), and by 1975 the data were sufficient to separately map the potentiometric surface of the Evangeline aquifer (Figure 17). By 1975, the rate and extent of the decline

of the altitude of the potentiometric surface of the Evangeline aquifer had increased significantly since 1959-60. Water-level declines of as much as 40 feet (12 m) occurred in eastern Lavaca County because of increased pumping from large-capacity rice-irrigation wells.

Figure 18 shows the water-level declines in a few selected wells screened in the Evangeline and Chicot



Location map



**EXPLANATION**

- 88R  
● 90  
WELLS USED FOR CONTROL--Number indicates altitude of water level in the Chicot aquifer in 1902. Location for "●" is approximate  
"R" indicates reported
- 100—  
WATER-LEVEL CONTOUR-- Shows altitude at which water level would have stood in tightly cased wells, 1902. Contour interval 20 feet (6 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

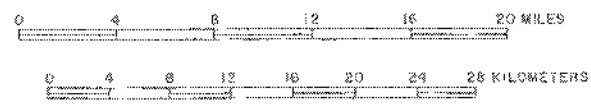
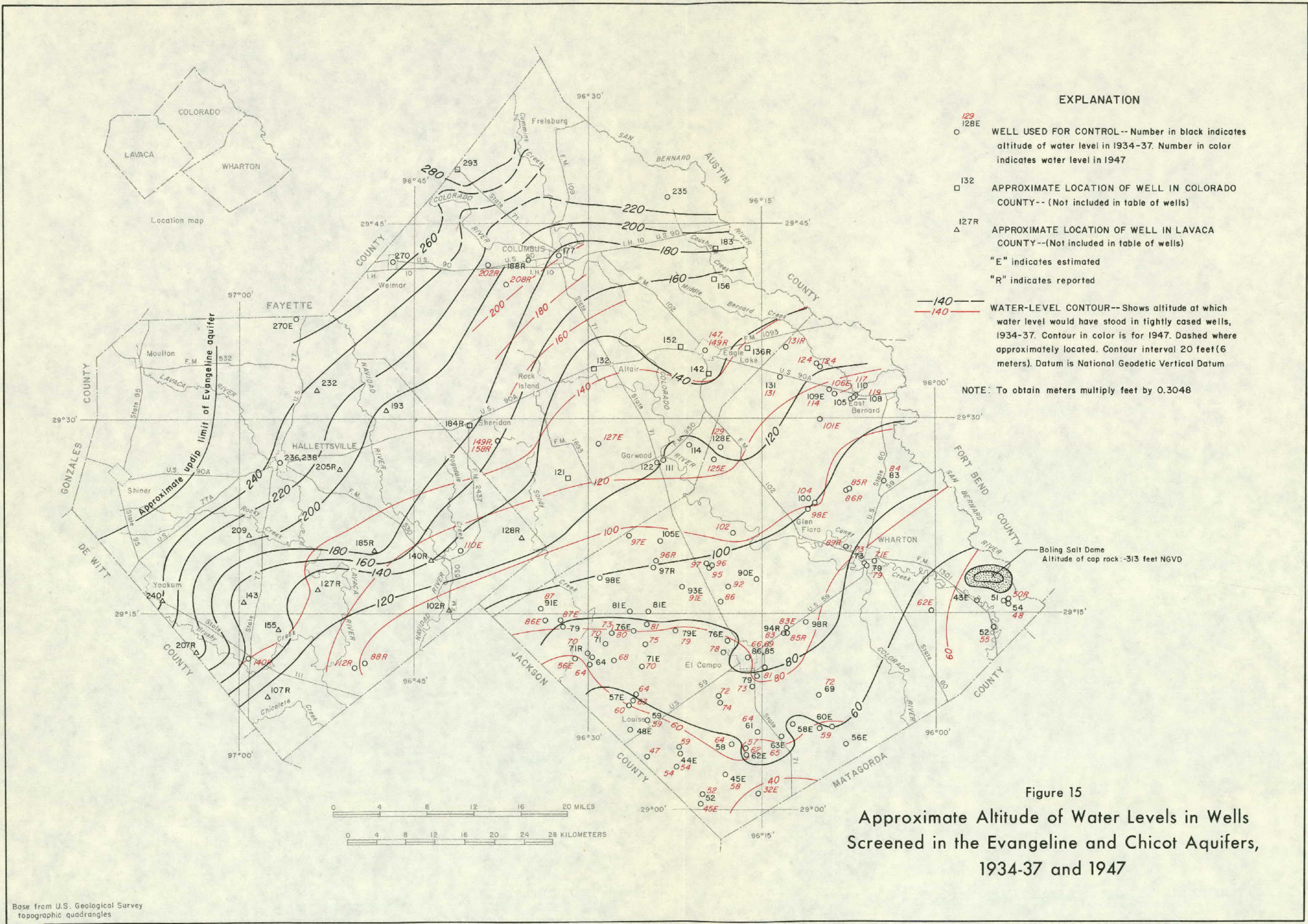


Figure 14  
Approximate Altitude of Water Levels in Wells Screened in the Chicot Aquifer in 1902

Base from U.S. Geological Survey topographic quadrangles





**EXPLANATION**

- 129  
○ 128E WELL USED FOR CONTROL-- Number in black indicates altitude of water level in 1934-37. Number in color indicates water level in 1947
- 132 APPROXIMATE LOCATION OF WELL IN COLORADO COUNTY-- (Not included in table of wells)
- △ 127R APPROXIMATE LOCATION OF WELL IN LAVACA COUNTY--(Not included in table of wells)
- "E" indicates estimated
- "R" indicates reported
- 140— WATER-LEVEL CONTOUR-- Shows altitude at which water level would have stood in tightly cased wells, 1934-37. Contour in color is for 1947. Dashed where approximately located. Contour interval 20 feet (6 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

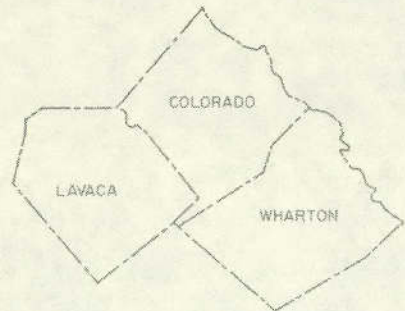
Figure 15

Approximate Altitude of Water Levels in Wells Screened in the Evangeline and Chicot Aquifers, 1934-37 and 1947

Base from U.S. Geological Survey topographic quadrangles







**EXPLANATION**

- 117E  
107  
WELL USED FOR CONTROL--Number in black indicates altitude of water level in wells completed only in the Chicot aquifer, 1959-60. Number in color indicates water level in 1975
- 155  
142  
WELL USED FOR CONTROL--Number in black indicates altitude of water level in wells completed in both the Chicot and Evangeline aquifers, 1959-60. Number in color indicates water level in 1975
- "E" indicates estimated
- "R" indicates reported

— 140 —  
- 140 -  
WATER-LEVEL CONTOUR-- Shows altitude at which water level would have stood in tightly cased wells, 1959-60. Contour in color is for 1975. Dashed where approximately located. Contour interval 20 feet (6 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

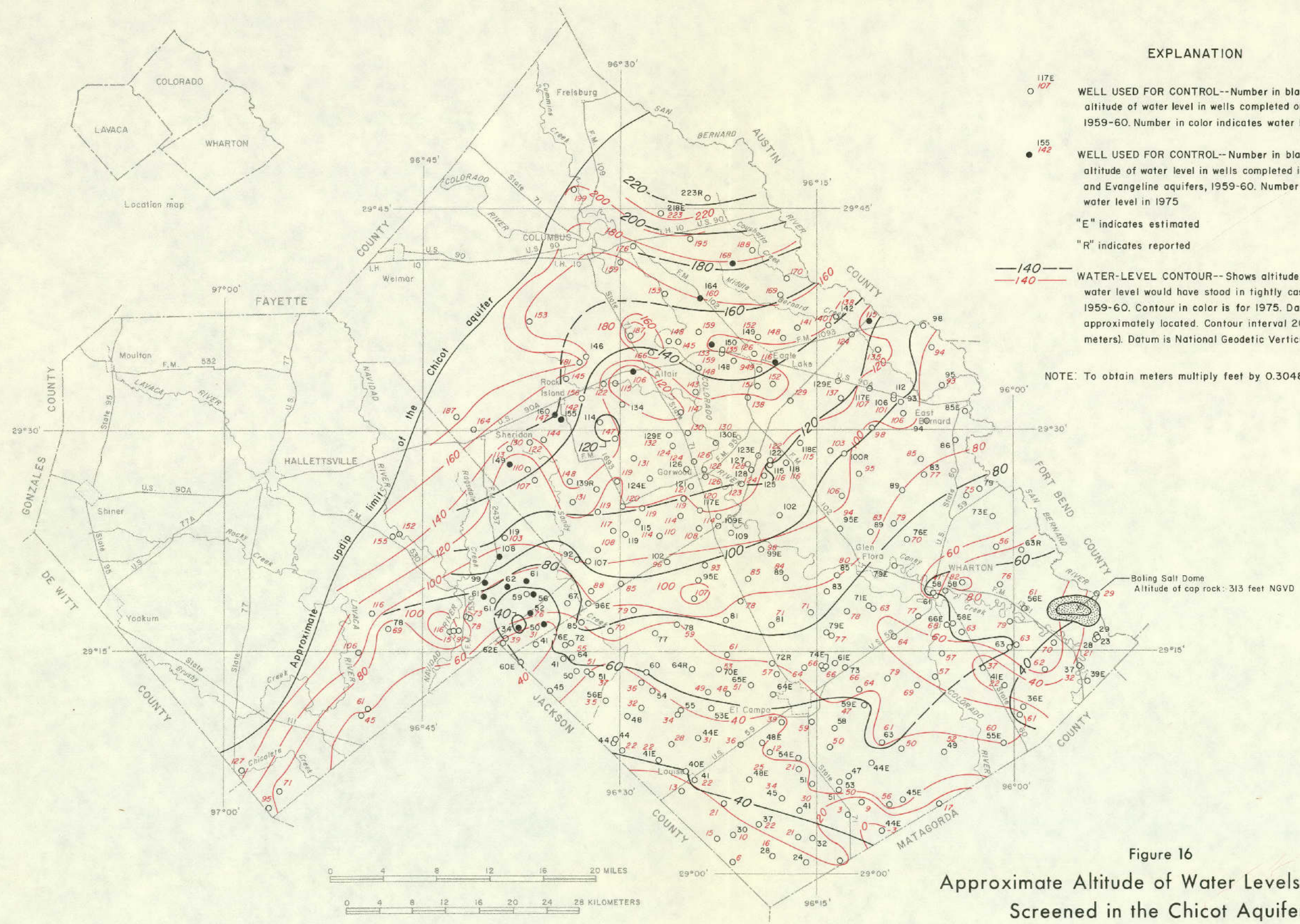
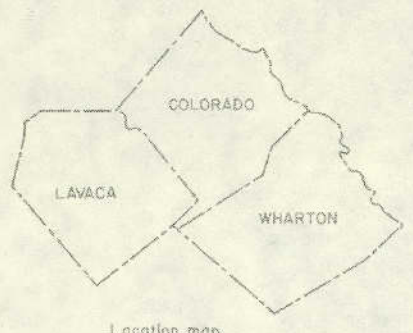


Figure 16  
Approximate Altitude of Water Levels in Wells  
Screened in the Chicot Aquifer,  
1959-60 and 1975

Base from U.S. Geological Survey  
topographic quadrangles





**EXPLANATION**

- 218E  
○ 234  
● 121  
● 91
- WELL USED FOR CONTROL--Number in black indicates altitude of water level in wells completed only in the Evangeline aquifer, 1959-60. Number in color indicates water level in 1975
- WELL USED FOR CONTROL--Number in black indicates altitude of water level in wells completed in both the Evangeline and Chicot aquifers, 1959-60. Number in color indicates water level in 1975
- "E" indicates estimated
- "R" indicates reported

- 140 —
- - - 140 - - -
- WATER-LEVEL CONTOUR--Shows altitude at which water level would have stood in tightly cased wells, 1959-60. Contour in color is for 1975. Dashed where approximately located. Contour interval 20 feet (6 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

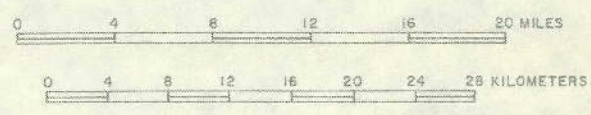
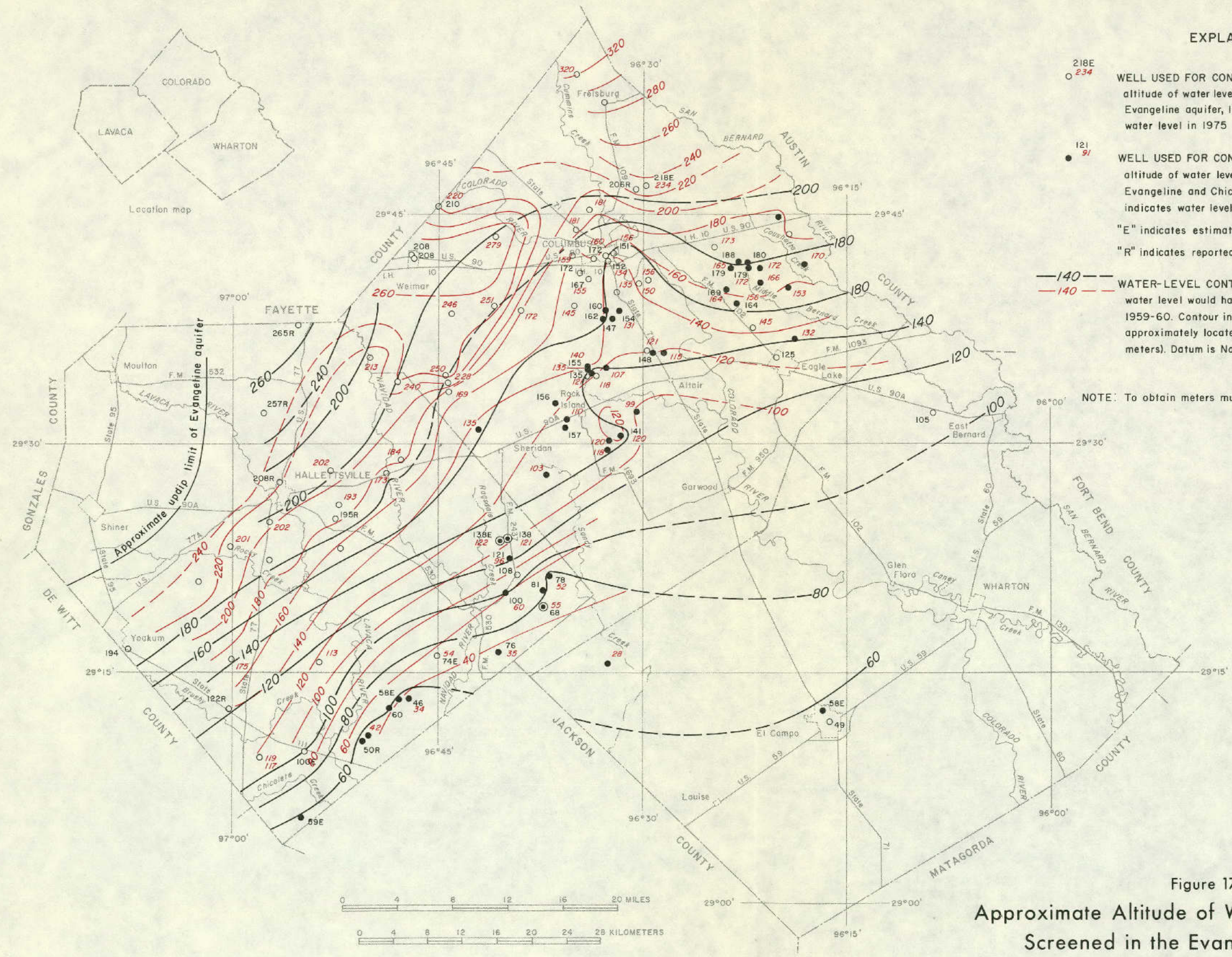


Figure 17  
 Approximate Altitude of Water Levels in Wells  
 Screened in the Evangeline Aquifer,  
 1959-60 and 1975

Base from U.S. Geological Survey topographic quadrangles



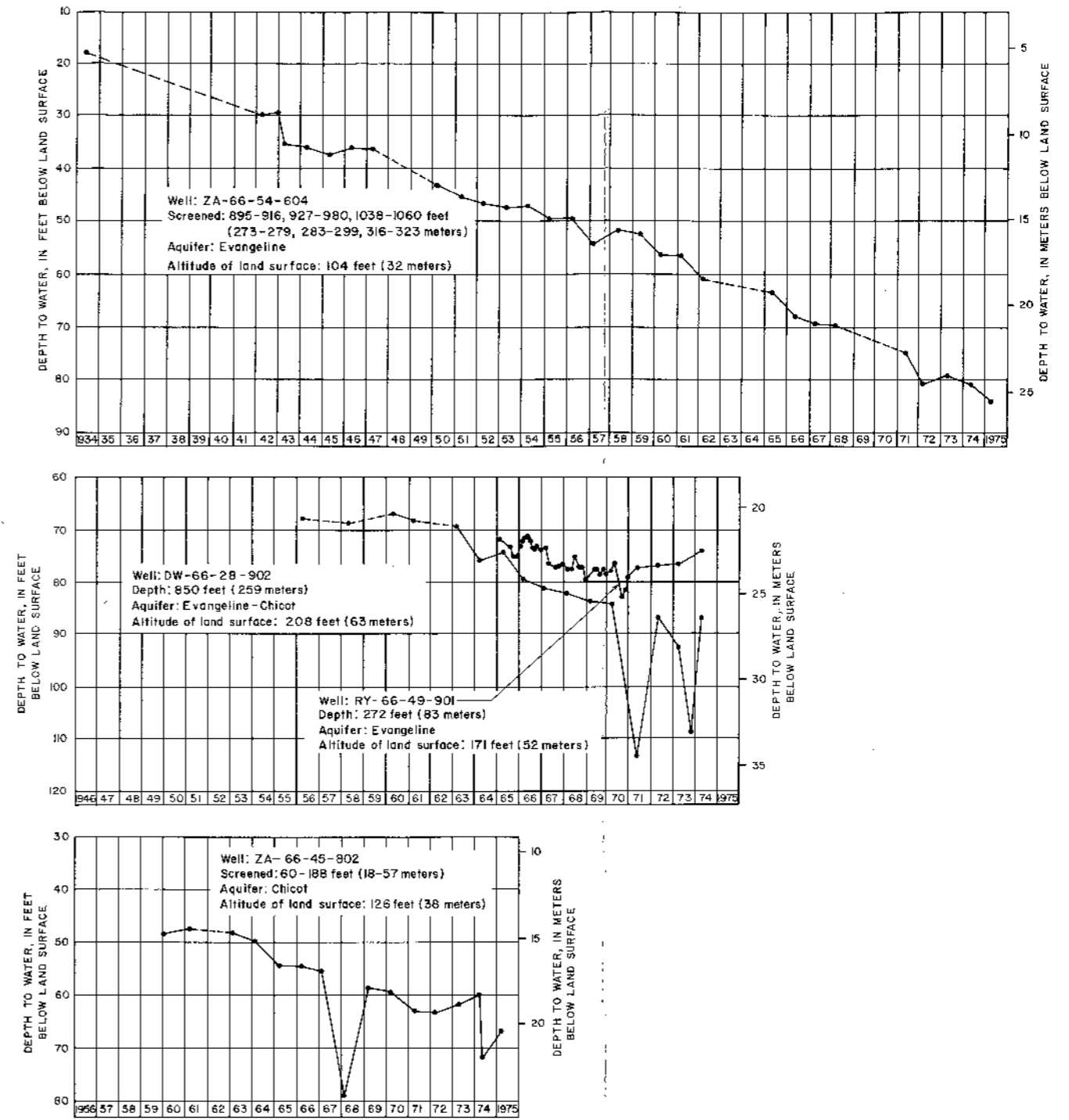
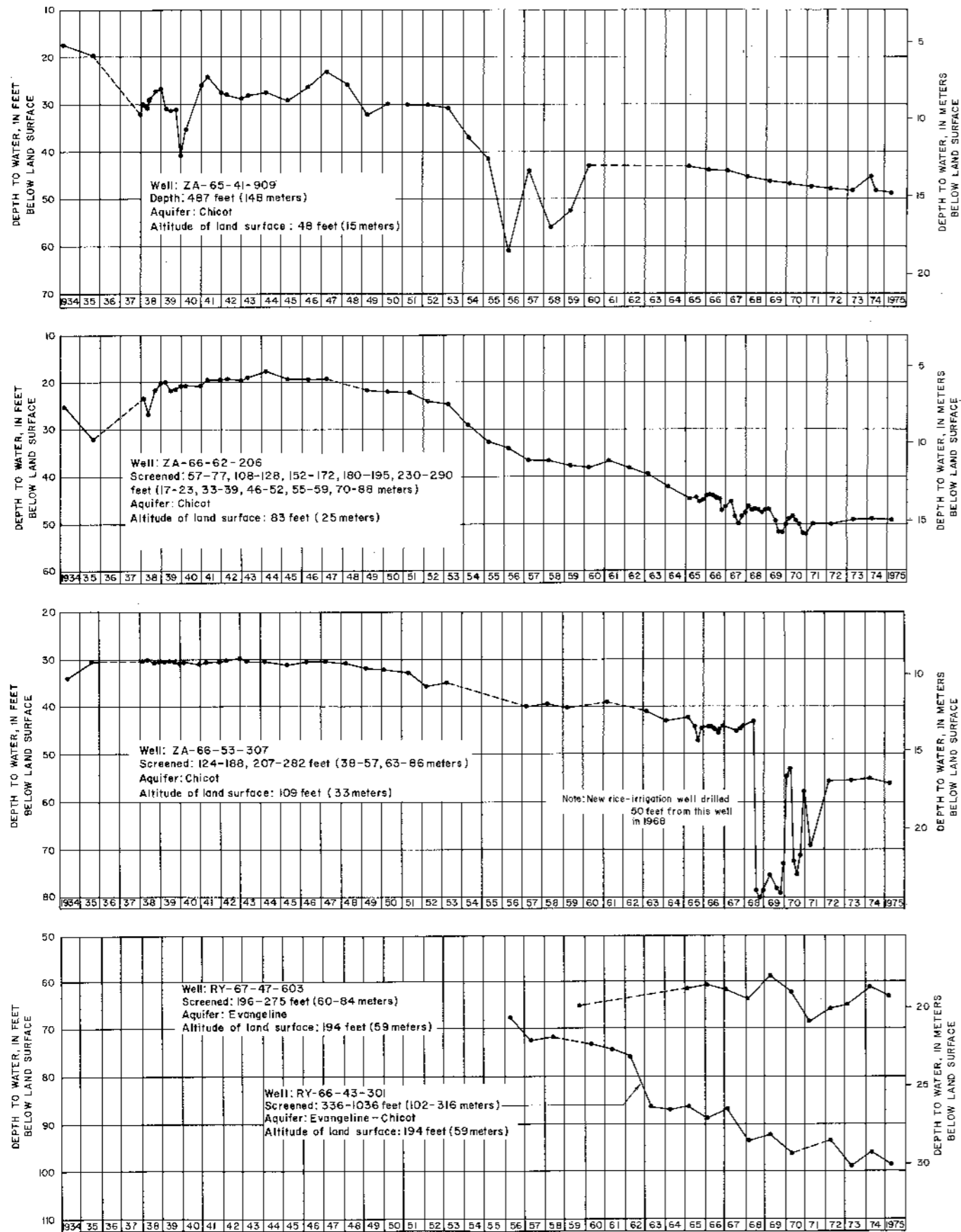


Figure 18  
 Hydrographs Showing Fluctuations of Water Levels  
 in Selected Wells Screened in the Evangeline and Chicot Aquifers



aquifers. Three of the hydrographs that contain data dating back to 1934 indicate little change in the water levels until about 1947 which may reflect the above-normal rainfall from 1940 to 1946 and the consequent decrease in pumping for irrigation. After 1947, the hydrographs indicate a steady rate of water-level decline.

The greatest amount of water-level decline in the Evangeline aquifer for the period of record is shown by the hydrograph of well ZA-66-54-604. In this public-supply well for El Campo in Wharton County, water levels declined about 65 feet (20 m) during the 42 years of record. Water levels in other wells in the Evangeline have declined at a faster rate. For example, the water level in well RY-66-42-902, near the edge of a large rice-growing area, declined 20 feet (6 m) during a 10-year period. Many water-level fluctuations are shown on the hydrographs of wells in the Evangeline aquifer, but some of the fluctuations, such as those shown on the hydrograph of well DW-66-28-902 (Figure 18), may result from measurements being made in the spring after the beginning of the pumping season. Normally, water levels recover during the winter and are measured early in the spring when they reflect a higher potentiometric surface.

Figure 16 shows the approximate altitude of water levels measured during 1959-60 in wells screened in the Chicot aquifer. This map can be compared with Figure 15 which shows the altitudes of water levels in the Evangeline and Chicot aquifers in 1947, because the majority of the water-level measurements in 1947 were in wells in the Chicot aquifer. The water levels in the Chicot aquifer in 1959-60 show a general decline in the southeastern part of Lavaca County, in the southeastern part of Colorado County, and in most of Wharton County since 1947.

In one area of concentrated pumping for rice irrigation in the southern part of Colorado County and extending into Lavaca and Wharton Counties, a small cone of depression occurs within a larger area of general decline in the altitude of the potentiometric surface. Figure 16 also shows the altitudes of water levels in selected wells in the Chicot aquifer that were measured during a 2-week period in March 1975, before the beginning of pumping for rice irrigation. From 1959-60 to 1975, water levels in the Chicot aquifer declined more than 20 feet (6 m) in some areas, but the overall water-level decline averaged about 10 feet (3 m) or less.

During 1950-56, the average annual rainfall was about 9 inches (229 mm) below normal; consequently, water levels generally declined as a result of increased pumping for irrigation. In addition, the introduction of

the two-crop rice season about 1954 resulted in additional increases in pumping for irrigation and greater water-level declines. An example of rapid decline is shown by the hydrograph of irrigation well ZA-66-45-802 (Figure 18), in which the water level declined 19 feet (6 m) during the 16 years of record. Figure 19 shows the approximate decline of water levels in wells in the Chicot aquifer between 1947 and 1975. The map indicates little or no decline in areas of limited irrigation, but indicates declines of about 40 feet (12 m) in areas of extensive irrigation.

Water-level declines that will result from pumping can be estimated if the aquifer characteristics are known. The theoretical relationship between drawdown and distance from the center of pumping for different transmissivities is shown on Figure 20. For example, if the transmissivity and storage coefficient are 6,000 ft<sup>2</sup>/d (557 m<sup>2</sup>/d) and 0.001, respectively, the drawdown would be 9 feet (2.7 m) at a distance of 1 mile (1.6 km) from a well or group of wells discharging 1 million gal/d (3,785 m<sup>3</sup>/d) for 1 year. If the transmissivity and storage coefficient are 1,000 ft<sup>2</sup>/d (93 m<sup>2</sup>/d) and 0.0001, respectively, pumping at the same rate and for the same time would result in a decline of 61 feet (19 m) at the same distance.

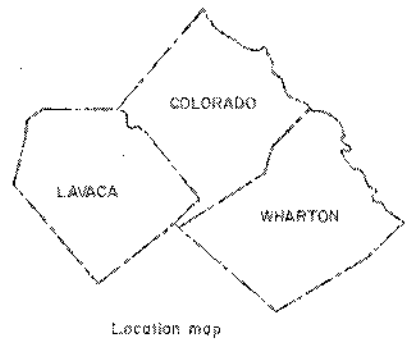
Figure 21 shows the relationship of drawdown to distance and time as a result of pumping from water-table and artesian aquifers. These graphs show that the rate of drawdown decreases with time. For example, if the drawdown at a distance of 100 feet (30 m) from a well in a water-table aquifer is about 14 feet (4.3 m) after 1 million gal/d (3,785 m<sup>3</sup>/d) has been pumped for 1 year, the drawdown would be about 19 feet (5.8 m) after 1 million gal/d (3,785 m<sup>3</sup>/d) had been pumped for 100 years. The drawdown in a water-table aquifer is less than in an artesian aquifer because under water-table conditions, the coefficient of storage is much larger.

## CHEMICAL QUALITY OF GROUND WATER

The factors that determine the suitability of water for a particular use are the quality of the water and the limitations imposed by the contemplated use. Some of the properties or constituents that affect the utility of the water supply include the concentrations of chemical constituents, suspended-sediment content, bacterial content, temperature, hardness, color, taste, and odor. For most purposes, the dissolved-solids concentration is a major limitation on the use of water. Chemical analyses of water from wells in Colorado, Lavaca, and Wharton Counties are given in Table 8. This table includes the results of analyses by the U.S. Geological







**EXPLANATION**

- -24 WELL USED FOR CONTROL--Number indicates decline of water level, in feet
- △ -18 SUPPLEMENTARY CONTROL POINT--Point of intersection of contours from 1947 and 1975 water-level maps
- -20 — LINE OF EQUAL WATER-LEVEL DECLINE, IN FEET--Dashed where approximately located. Interval 10 feet (3 meters)

NOTE: To obtain meters multiply feet by 0.3048

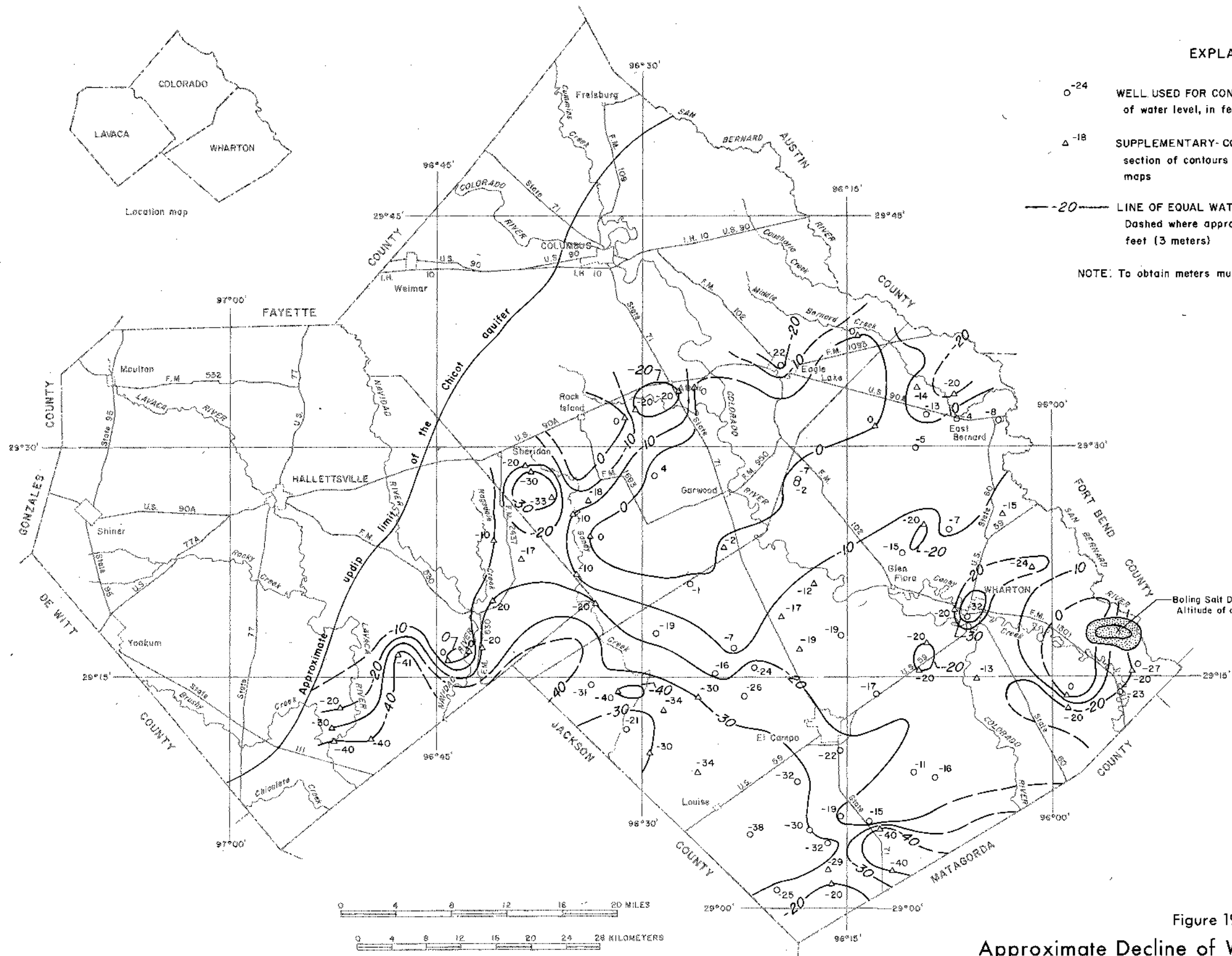


Figure 19  
Approximate Decline of Water Levels in Wells  
Screened in the Chicot Aquifer, 1947-75



Survey, by other government agencies, and by commercial laboratories. The concentrations of the chemical constituents are reported in mg/l (milligrams per liter) or  $\mu\text{g/l}$  (micrograms per liter).

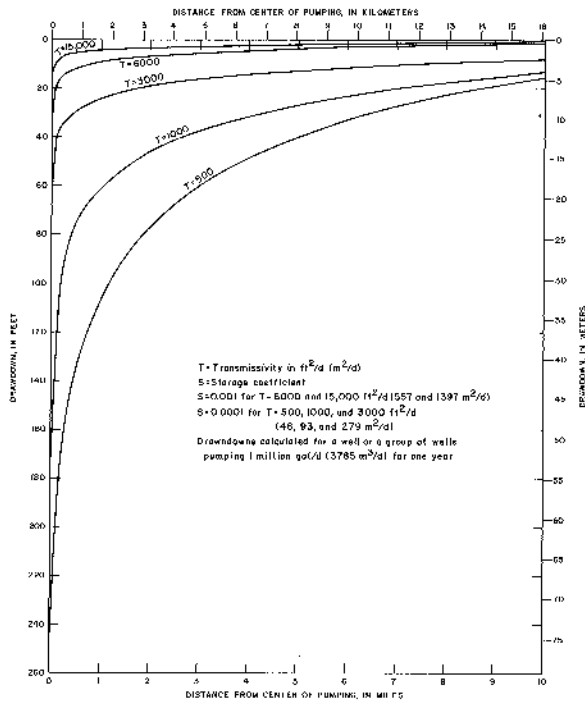


Figure 20.—Relationship of Drawdown to Transmissivity and Distance

The chemical composition of ground water depends upon the source of the water; the rate of movement of the water; and most importantly, the minerals contained in the rocks and soils through which the water moves. Differences in the chemical quality of ground water generally reflect differences in the chemical composition of the sediments of the water-bearing formations, and the generally slow rate of ground-water movement inhibits the mixing of waters of different chemical compositions. Relatively impermeable beds of clay may form local barriers to ground-water movement and tend to stratify the water by limiting vertical movement.

The data in Table 8 show that the chemical quality of the ground water varies considerably throughout Colorado, Lavaca, and Wharton Counties at different places and different depths in the aquifers. The factors causing these differences include composition of the aquifers, hydraulic continuity or lack of continuity, and contamination from oil-field operations.

The Federal Water Pollution Control Act Amendments of 1972 required that the U.S. Environmental Protection Agency (EPA) publish

water-quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all identifiable effects on health and welfare that may be expected from the presence of pollutants in any body of water, including ground water. In 1973, EPA published the criteria for water quality for the protection of human health and for the protection and propagation of desired species of aquatic biota (National Academy of Sciences, 1973). The latest revision of these criteria was published by EPA in 1976 (U.S. Environmental Protection Agency, 1976). This publication addresses the effects of the basic water constituents and pollutants that are considered most significant in the aquatic environment in the context of present knowledge and experience.

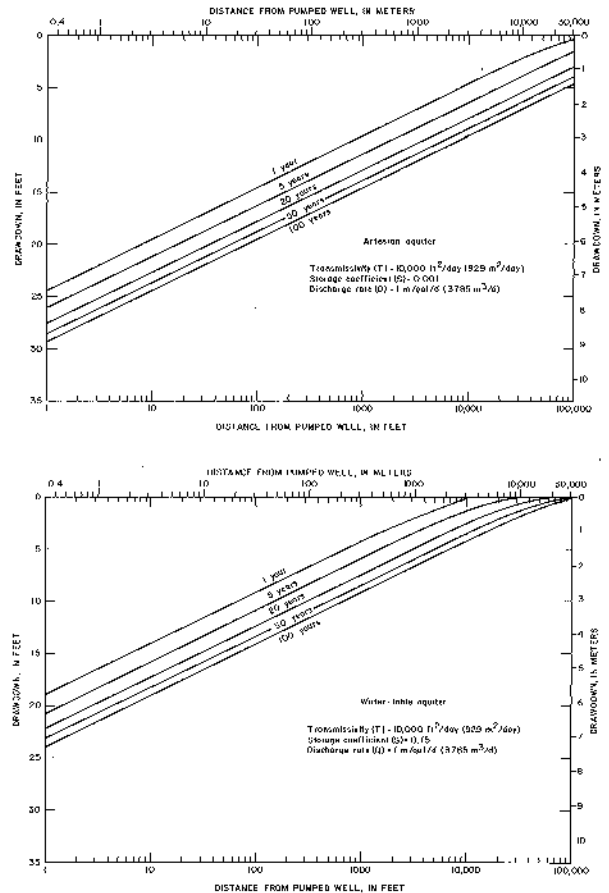


Figure 21.—Relationship of Drawdown to Time and Distance as a Result of Pumping Under Artesian and Water-Table Conditions

According to EPA, "The word criterion represents a constituent concentration or level associated with a degree of environmental effect upon which scientific judgement may be based. As it is currently associated with the water environment it has come to mean a designated concentration of a constituent that when not exceeded, will protect an organism, an organism community, or a prescribed water use or quality with an

adequate degree of safety" (U.S. Environmental Protection Agency, 1976, p. 4).

EPA's "Quality Criteria for Water" (National Academy of Sciences, 1973) includes a concise statement of the dominant criterion or criteria for a particular constituent followed by a narrative introduction, a rationale that includes justification for the designated criterion or criteria, and a listing of the references cited within the rationale.

The criteria for some of the properties or constituents of domestic water supplies are included in the following tabulation. For a discussion of the supporting scientific rationale, the reader is referred to the report by EPA (National Academy of Sciences, 1973, p. 25-401).

<u>Property or constituent</u>	<u>Recommended criteria (mg/l)</u>
Chloride (Cl)	250
Iron (Fe)	.3
Manganese (Mn)	.05
Nitrate (N)	10
Sulfate (SO <sub>4</sub> )	250

Recommended criteria for fluoride were not included in the 1976 "Quality Criteria for Water." However, the earlier 1973 report recommended that the maximum levels shown in the following table not be exceeded in public-water supply sources.

<u>Annual average of maximum daily air temperatures</u>	<u>Fluoride maximum (mg/l)</u>	
80-91	26.3-32.5	1.4
72-79	21.5-26.2	1.6
65-71	17.7-21.4	1.8
59-64	14.7-17.6	2.0
55-58	12.1-14.6	2.2
50-54	10.0-12.0	2.4

Although these criteria are based upon current knowledge of the effects on health and welfare, it must be emphasized that many other factors should be considered in making decisions relative to establishing particular standards and control measures. These criteria are quoted as a basis for comparison.

Water containing concentrations of chloride exceeding 250 mg/l in combination with sodium may

have a salty taste. Fluoride in drinking water reduces tooth decay, especially in young children; however, concentrations greater than the recommended criteria may cause mottling of the teeth. Excessive iron and manganese in the water supply tends to stain utensils and to discolor laundry and plumbing fixtures. Water having a nitrate (N) concentration greater than 10 mg/l is potentially dangerous for infant feeding because it has been related to infant cyanosis or "blue baby" disease. Large concentrations of nitrate may also indicate pollution by sewage or organic material. Excessive sulfate concentrations in drinking water often produce a laxative effect.

The hardness of water, caused mainly by calcium and magnesium, is important in a domestic water supply although no limits of hardness have been established. Excessive hardness causes an increase in the consumption of soap and induces the formation of scale in hot-water heaters and water pipes. A commonly used classification of water hardness is given in the following table:

<u>Hardness range (mg/l)</u>	<u>Classification</u>
60 or less	soft
61 to 120	moderately hard
121 to 180	hard
more than 180	very hard

The suitability of water for irrigation depends partly upon the chemicals in the water and the effect of these chemicals on plants and soils. The suitability is also affected by the type of crop, the soil structure and composition, the irrigation and drainage facilities, the amount of water used, and the climate. Some of the more important chemical characteristics that are considered in the evaluation of water for irrigation are: (1) The relative proportion of sodium to other cations, which is an index of the sodium or alkali hazard; (2) the concentrations of soluble salts, an index of the salinity hazard; (3) the amount of residual carbonate; and (4) the concentration of boron.

The water-quality requirements for rice irrigation have been studied extensively because of its importance to the economy of many parts of the country, including Colorado, Lavaca, and Wharton Counties. Young rice is particularly sensitive to a high sodium chloride concentration in the water, but develops a resistance to this constituent as the plant matures. According to Shutts (1953, p. 871-884), the commonly accepted tolerances of rice are as follows:

<u>Concentration of salts as sodium chloride (mg/l)</u>	<u>Tolerance</u>
600	Tolerant at all stages.
1,300	Rarely harmful and only to seedlings in dry, hard soil.
1,700	Harmful before tillering; tolerable from jointing to heading.
3,400	Harmful before booting; tolerable from booting to heading.
5,100	Harmful at all stages.

Chemical analyses of about 460 water samples collected in the three-county area over the past 40 years are listed in Table 8. The chemical quality of ground water from selected wells in the various aquifers is shown on Figure 22.

Chloride concentrations of more than 250 mg/l were exceeded in approximately 7 percent of the samples analyzed. Dissolved-solids concentrations of 500 mg/l were exceeded in about 40 percent of the samples analyzed. The greatest number of analyses showing dissolved-solids concentrations of more than 500 mg/l were from samples collected in Lavaca County. Less than 3 percent of all samples analyzed were classified as slightly to moderately saline.

About 425 water samples were analyzed for hardness as CaCO<sub>3</sub>. Water from more than two-thirds of these samples was very hard, and water from less than 5 percent of the samples was soft. The maximum hardness determined was 2,400 mg/l for a sample collected from well RY-67-48-301 in Lavaca County.

Iron determinations were made in about 110 samples. Only six analyses, five of which were from Lavaca County, showed iron in excess of 0.3 mg/l (300 µg/l).

About 215 samples were analyzed for fluoride, but none of the analyses showed concentrations in excess of the recommended limits of 1.4 mg/l. The maximum value of fluoride concentration was 1.2 mg/l in a sample from well ZA-66-61-309 in Wharton County.

Of about 275 samples analyzed for nitrate, only 2 of the samples contained nitrate in excess of the Environmental Protection Agency criterion. Water from

well DW-66-20-409 contained 17.2 mg/l and well RY-67-32-702, which is unused, contained 22 mg/l nitrate.

The concentration of sulfate exceeded the limit of 250 mg/l in 1 sample of a total of about 400 samples that were analyzed. The highest value was 540 mg/l in water from well RY-67-48-301 in Lavaca County. Only seven analyses showed concentrations greater than 100 mg/l.

## Chemical Quality of Water in the Aquifers

### Catahoula Sandstone

Water in the Catahoula Sandstone is generally of poorer quality than the water in the overlying Jasper aquifer. Samples of water from two wells penetrating the Catahoula (DW-66-11-602 and DW-66-18-605) were analyzed (Table 8). The only well for which a complete chemical analysis is available yielded a sodium bicarbonate type water.

### Jasper Aquifer

The Jasper aquifer contains fresh water in the northern parts of Lavaca and Colorado Counties. The water quality, however, varies widely. Hardness ranges from very hard in water from most of the wells less than 300 feet (91 m) deep to soft in water from two wells about 1,000 feet (305 m) deep. A sodium calcium bicarbonate or calcium bicarbonate type water is produced from the shallow wells. The dissolved-solids concentration ranged from 366 mg/l in well RY-67-39-504, which is 288 feet (88 m) deep, to 1,179 mg/l in well RY-67-39-510, which is 980 feet (299 m) deep. Electrical logs indicate that the salinity of water in the Jasper aquifer increases downward.

### Evangeline Aquifer

Fresh water occurs in the Evangeline aquifer throughout most of Colorado, Lavaca, and Wharton Counties. Wells drilled into the deeper sands yield a sodium bicarbonate type water as shown by well ZA-66-54-604, which is 1,060 feet (323 m) deep. The shallower sands tend to contain calcium bicarbonate type water as shown by well RY-66-49-401, which is 230 feet (70 m) deep.

About one-half of the water samples collected from the Evangeline aquifer were analyzed for the

concentrations of dissolved solids and about one-half of the samples analyzed contained 500 mg/l or more dissolved solids. The dissolved-solids concentration in most of the water samples obtained from wells producing from both the Evangeline and Chicot aquifers ranged from about 200 to 500 mg/l. In the southern part of Wharton County, both slightly saline and moderately saline water occur in the Evangeline aquifer.

#### Chicot Aquifer

Fresh water occurs in the Chicot aquifer throughout the entire three-county area except in local areas of contamination from oilfield operations. Water in the Chicot aquifer is, for the most part, a calcium bicarbonate type; but water from about 20 percent of the samples analyzed was a sodium bicarbonate type. Water from well ZA-66-47-101, which is representative of the Chicot aquifer, is a calcium bicarbonate type water. The Chicot aquifer contains hard to very hard water, but the concentrations of dissolved solids vary greatly. Contamination from oil-field operations probably contributed to the higher concentrations of dissolved solids in many of the samples analyzed.

#### Changes in Water Quality

Several wells in the three-county area have been sampled two or three times for water-quality analyses. Water from two wells in the Jasper aquifer in Colorado County showed increasing mineralization during a 28-year period of record. The dissolved-solids concentration in water from well DW-66-18-601 increased from 219 to 610 mg/l and from 557 to 612 mg/l in water from well DW-66-18-602. Water-quality changes with time were noted in two wells screened in the Evangeline aquifer in Wharton County. The dissolved-solids concentration in water from well ZA-66-31-906 decreased from 314 to 298 mg/l during a 16-year period and increased from 365 to 379 mg/l in water from well ZA-66-54-604 during a 35-year period. Water from wells screened in a depth interval between 100 feet (30 m) and 370 feet (113 m) showed the greatest increase in the concentrations of dissolved solids—from 617 to 867 mg/l in water from well DW-66-37-703 during a 15-year period, and water from well ZA-66-48-904 showed the greatest decrease, from 614 to 362 mg/l, during a 14-year period.

The greatest change in the concentration of dissolved solids in a deeper well (RY-66-43-203) screened from 244 to 444 feet (74 to 135 m) occurred in Lavaca County, in which the dissolved-solids concentration decreased from 338 to 274 mg/l over a 20-year period. Water from most wells in the Chicot and

Evangeline aquifers that were sampled over a period of time showed little change in water quality or only a slight increase in mineralization. Water from shallow wells or from wells located near oil or gas fields usually showed the greatest changes in mineralization.

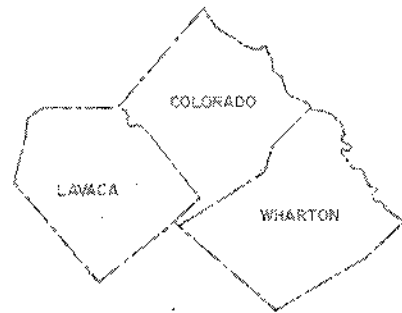
#### Relationship of Fresh Water to Saline Water

The approximate altitude of the base of freshwater is shown on Figure 23; the approximate altitude of the base of slightly saline water is shown on Figure 24. The interface between fresh and saline water in Colorado, Lavaca, and Wharton Counties is very irregular, and the geohydrologic cross sections (Figures 5-8) show vertical layering of fresh and slightly saline water in some areas. The electrical log of well DW-66-30-207 indicates that a zone of fresh water occurs in sand units between depths of 2,800 and 2,950 feet (850 and 900 m). Slightly saline water occurs above this zone, and moderately saline water occurs below this zone. This stratification may be due in part to differences in hydraulic conductivity within parts of the aquifers.

The altitude of the base of fresh water varies considerably throughout the three-county area. In two areas (Figure 23), fresh water extends to considerable depths. The greatest depth of occurrence, about 2,100 feet (640 m) below NGVD, is in the southeastern part of Wharton County (south of Wharton) where the thickest sands occur in the Evangeline aquifer. In an extensive area of southeastern Colorado County, fresh water occurs at depths greater than 1,800 feet (550 m) below NGVD. In this area, fresh water occurs in the Jasper aquifer and may occur in the Catahoula Sandstone.

In the area of the Boling Salt Dome in eastern Wharton County, a distinct anomaly occurs in the altitude of the base of fresh water. At this location, the base of fresh water rises to less than 750 feet (230 m) below NGVD. Within central Lavaca County, the base of fresh water rises to less than 400 feet (120 m) below NGVD and extends as a narrow band from Fayette County in the northeast to DeWitt County in the southwest. In the vicinity of Yoakum, the base of fresh water is less than 300 feet (90 m) below NGVD. In the northwestern corner of Lavaca County, the base of fresh water rises to about 260 feet (80 m) below NGVD (Figure 23).

The highest altitude of the base of slightly saline water is in northwestern Lavaca County, where slightly saline water occurs at a depth of approximately 480 feet (145 m) below NGVD (Figure 24). In southeastern Wharton County, the base of slightly saline water rises to less than 1,200 feet (365 m) below NGVD, as indicated



**EXPLANATION**

**SOURCE OF WATER**

- CHICOT AQUIFER
- △ EVANGELINE AQUIFER
- BURKEVILLE CONFINING LAYER
- x JASPER AQUIFER
- CHICOT AND EVANGELINE AQUIFERS
- ▲ EVANGELINE AND CHICOT AQUIFERS
- EVANGELINE AQUIFER AND BURKEVILLE CONFINING LAYER

**SAMPLED WELL**

(CHEMICAL CONSTITUENTS, IN MILLIGRAMS PER LITER)

Well number	307	79	Chloride
Depth of well, in feet	371	8	Sulfate
Dissolved solids	471	320	Hardness

— Indicates no data

"E" indicates estimated value

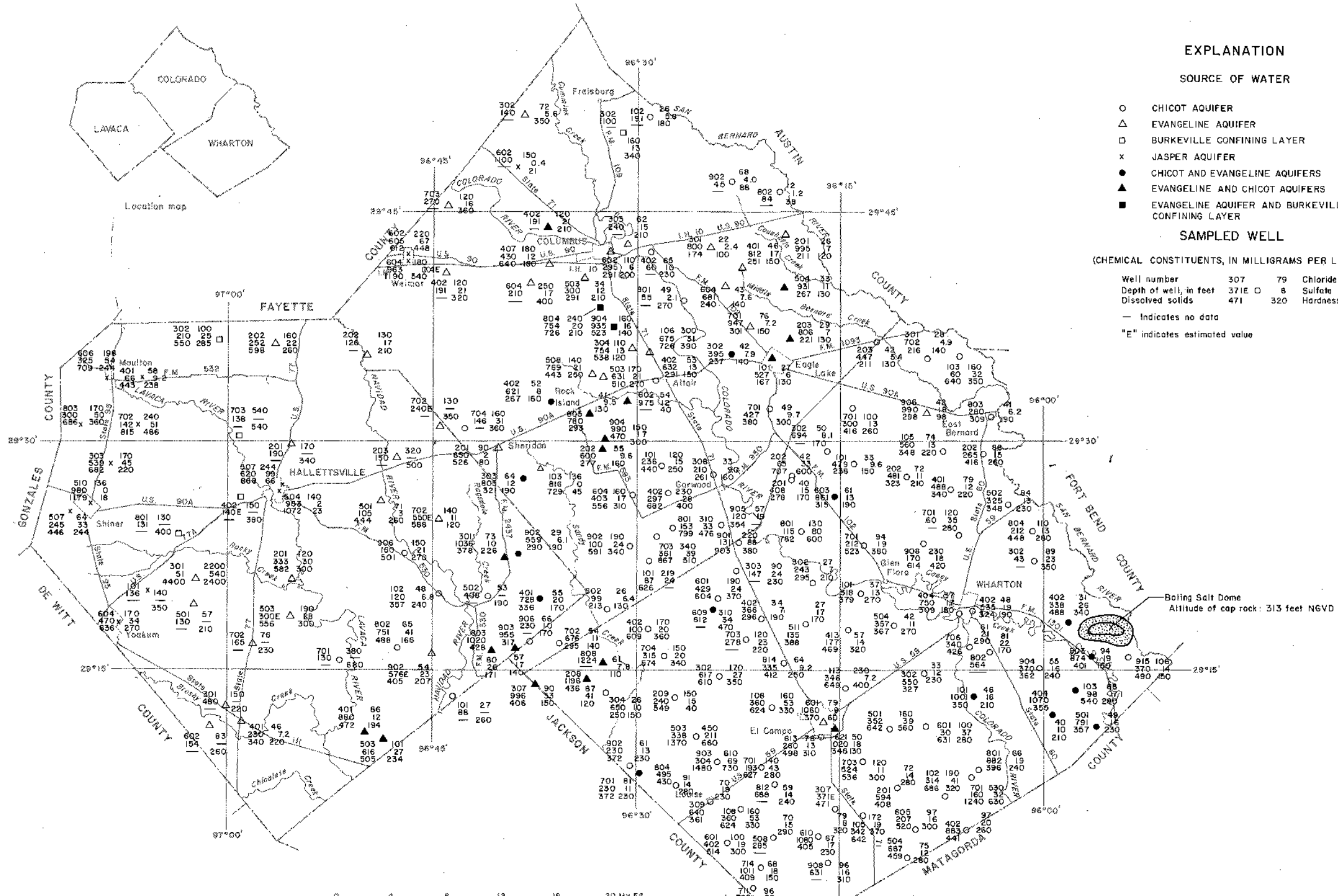
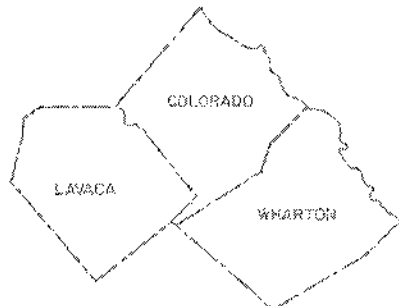


Figure 22  
**Chemical Quality of Ground Water  
 From Selected Wells in the Various Aquifers**

Base from U.S. Geological Survey  
 topographic quadrangles







Location map

EXPLANATION

- -1640 WELL USED FOR CONTROL--Number indicates altitude of the base of fresh water
- -1600— WATER-QUALITY ZONE CONTOUR--Shows approximate altitude of the base of fresh water. Dashed where approximately located. Contour interval 100 feet (30 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

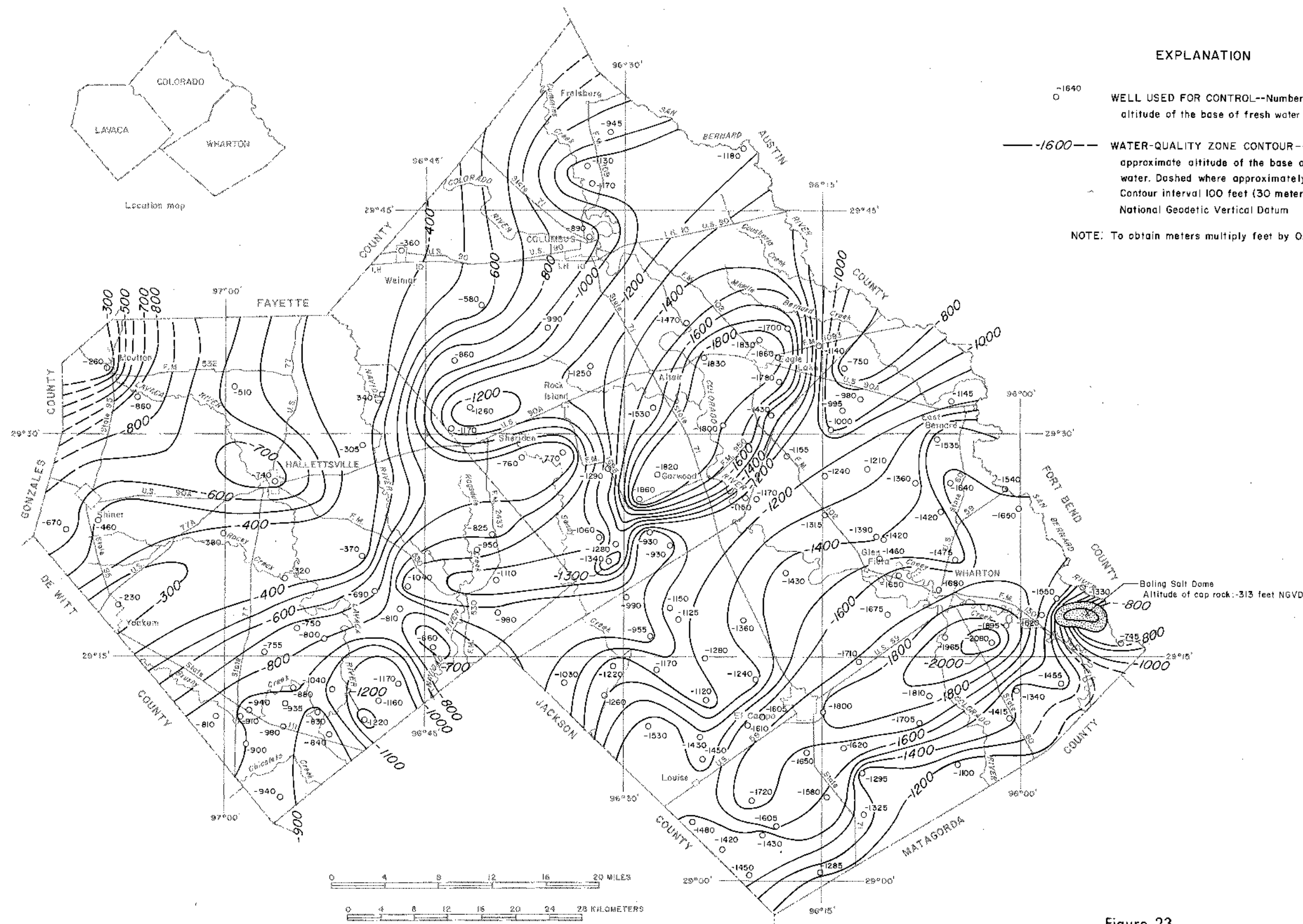
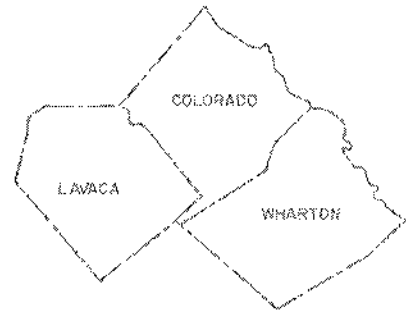


Figure 23

Approximate Altitude of the Base of Fresh Water

Base from U.S. Geological Survey topographic quadrangles





Location map

EXPLANATION

- -1660 WELL USED FOR CONTROL--Number indicates altitude of the base of slightly saline water
- -1600 — WATER-QUALITY ZONE CONTOUR--Shows approximate altitude of the base of slightly saline water. Dashed where approximately located. Contour interval 100 feet. (30 meters). Datum is National Geodetic Vertical Datum

NOTE: To obtain meters multiply feet by 0.3048

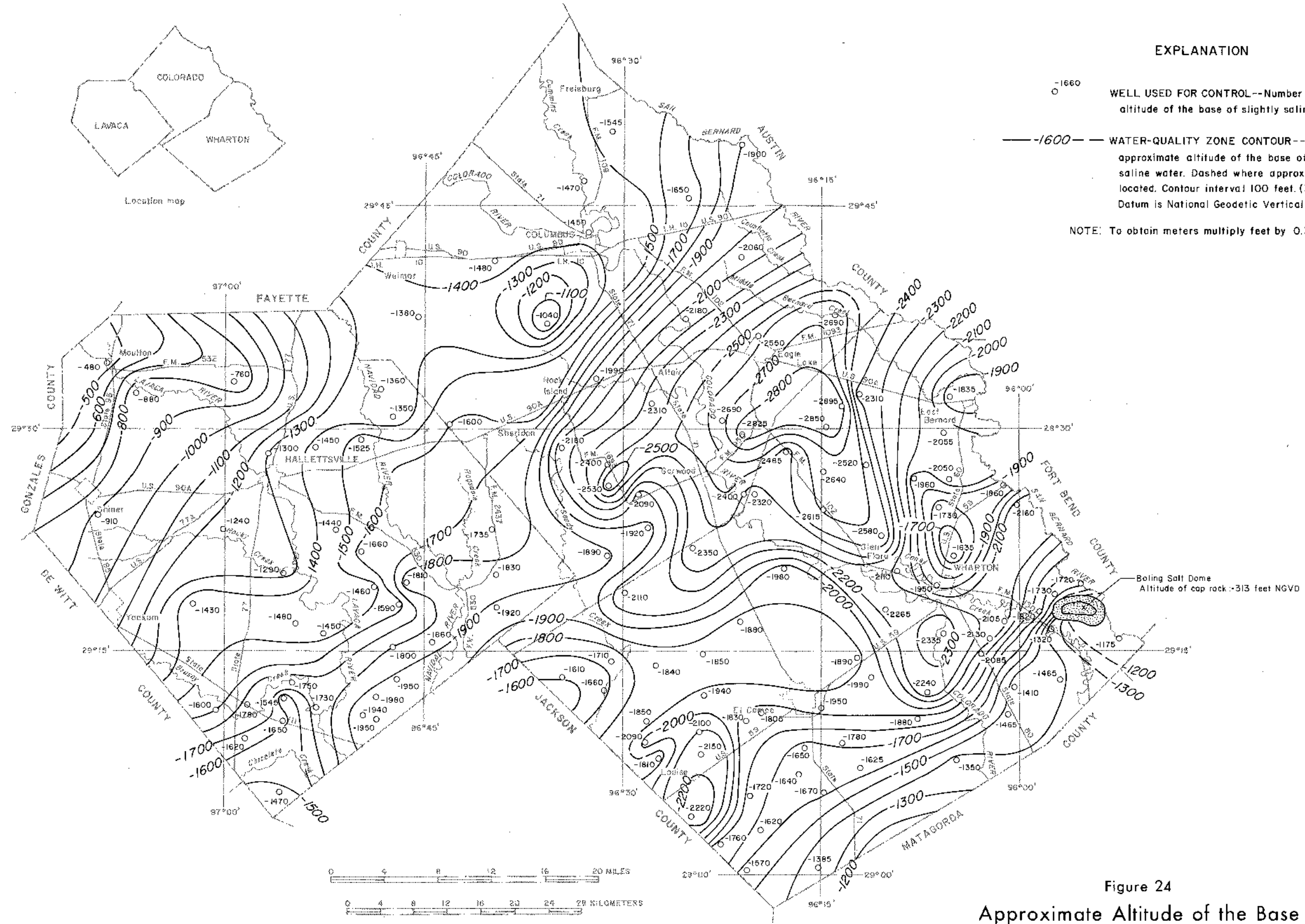


Figure 24  
Approximate Altitude of the Base  
of Slightly Saline Water

Base from U.S. Geological Survey  
topographic quadrangles



by the electrical log of well ZA-65-41-932. This relatively shallow depth of occurrence of slightly saline water may result from ground-water circulation around the Boling Salt Dome. The greatest depth at which slightly saline water occurs is almost 2,900 feet (885 m) below NGVD in northern Wharton County.

## CONTAMINATION OF GROUND WATER IN OILFIELD OPERATIONS

### Disposal of Salt Water

Considerable amounts of brine are produced in Colorado, Lavaca, and Wharton Counties in conjunction with the production of oil and gas. According to a salt water disposal inventory made by the Texas Water Development Board, Texas Water Pollution Control Board, and Railroad Commission of Texas for 1967, 27,338,522 barrels (4.3 million m<sup>3</sup> or about 3,500 acre-feet) of salt water was produced in 1967 in the three counties. The method of disposal, the number of well fields, and the quantity of salt water disposed by each method are given in Table 3. The locations of the oil and gas fields are shown on Figure 25.

Since 1967, when these data were compiled, the danger of contamination has been minimized by State regulations that eliminate the use of unlined surface pits for the disposal of oil-field brines (Railroad Commission of Texas, 1973). Although unlined surface pits are no longer used, the effects of such disposal practices in the past will continue for many years because of the slow rates of infiltration, dispersion, and ground-water movement. Some previously open pits in the Pickett Ridge, Magnet-Withers, Withers North, Bernard Prairie, Boling, and Niels Carlsen fields (Figure 25) may already have contaminated the shallow fresh water bearing sands in some places. Contamination in the area of these fields is suggested by chemical analyses of water samples that show a generally higher than normal mineralization of the water in the aquifers (Table 8).

### Improperly Cased Wells

Salt water contamination also occurs through improperly cased oil and gas wells, which normally penetrate aquifers containing both fresh water and saline water before reaching the oil- or gas-producing horizons. If the wells or tests are improperly cased or plugged, brines can move upward from the higher-pressured formations into zones of fresh and slightly saline water. To prevent this type of contamination, the Railroad

Commission of Texas (1973) requires that the fresh and slightly saline water be protected by cementing surface casing to the appropriate depths.

The depths of the sands containing fresh to slightly saline water in oil fields for which field rules have been issued and the amount of cemented casing required are shown on Figure 26. These data show that in most fields, the fresh water is adequately protected by the surface-casing rules.

## FRESH WATER AVAILABLE FOR DEVELOPMENT

Various methods of estimating the availability of ground water have been used in the coastal region of Texas, and each method has been useful in its own way in providing indices of water availability.

One method that has been widely employed in both regional and county-wide studies in Texas uses theoretical lines of recharge and discharge with preselected pumping lifts along the line of discharge. The theoretical nature of this method is necessarily predicated upon several assumptions, which may be difficult to meet in actual practice. However, the quantitative values obtained by using this method may be useful as guides to water availability.

Another widely-used method of estimating ground-water availability is that of relating availability to potential recharge. This method is also useful as a guide to determining how much water is available perennially without depleting the ground water in storage.

The estimates of availability of ground water in the Chicot and Evangeline aquifers in Colorado, Lavaca, and Wharton Counties were based on these two methods.

### Chicot Aquifer

The following assumptions were used in calculating the amount of fresh water available from the Chicot aquifer:

1. Water levels will be lowered 200 feet (61 m) by development along a line of discharge 35 miles (56 km) in length, approximately parallel to the coast and to the trend of the outcrop of the aquifer. This area of development (line of discharge) is assumed to be in Wharton County in an area of occurrence of thick sections of sand containing fresh water. The distance





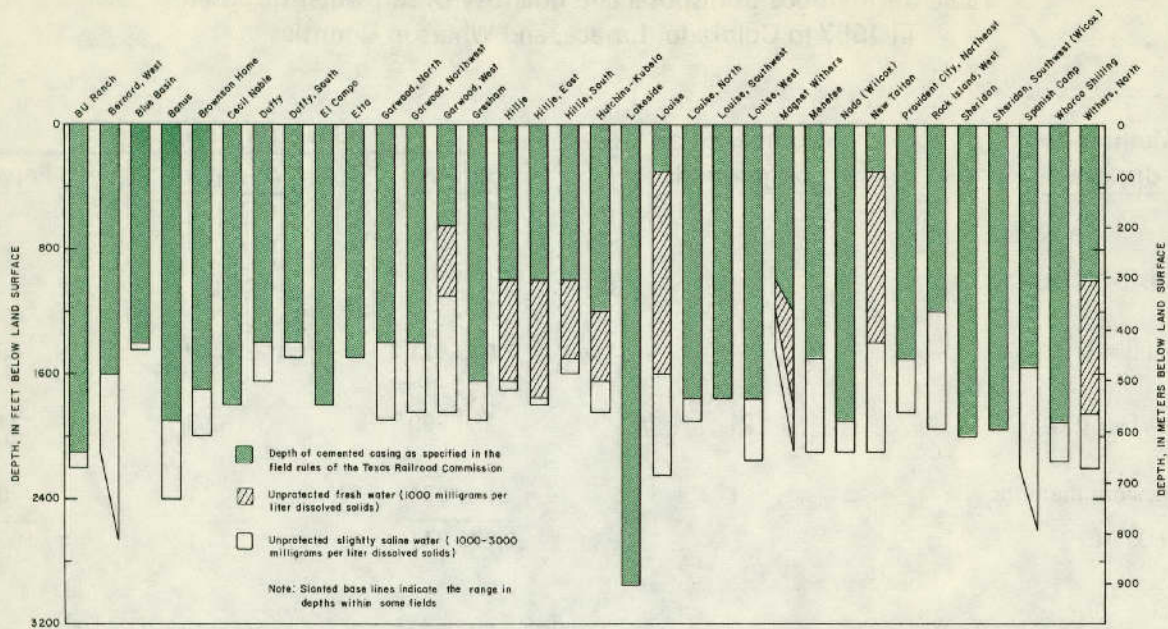




Table 3.—Methods of disposal and quantity of salt water disposed  
in 1967 in Colorado, Lavaca, and Wharton Counties

<u>Method of disposal</u>	<u>Number of oil or gas fields</u>	<u>Quantity disposed</u>		
		<u>Barrels</u>	<u>Acre-feet</u>	<u>Percent</u>
<b>COLORADO COUNTY</b>				
Disposal wells	14	2,022,571	260.7	89.0
Open surface pits	24	250,299	32.3	11.0
Miscellaneous methods	1	871	.1	0
TOTAL		<u>2,273,741</u>	<u>293.1</u>	<u>100.0</u>
<b>LAVACA COUNTY</b>				
Disposal wells	4	442,389	57	52.3
Open surface pits	10	402,850	51.9	47.7
Miscellaneous methods	1	125	0	.0
TOTAL		<u>845,364</u>	<u>108.9</u>	<u>100.0</u>
<b>WHARTON COUNTY</b>				
Disposal wells	37	27,254,514	3,512.9	99.7
Open surface pits	10	32,727	4.2	.1
Miscellaneous methods	6	51,281	6.6	.2
TOTAL		<u>27,338,522</u>	<u>3,523.7</u>	<u>100.0</u>

NOTE: Totals may not agree with individual figures due to rounding.



**Figure 26.—Comparison Between Surface-Casing Requirements in Oil and Gas Fields and the Base of Sands Containing Fresh and Slightly Saline Water**

between the inland limit of the outcrop of the aquifer and the line of discharge is about 45 miles (76 km).

2. All recharge occurs in the outcrop area along a line 35 miles (56 km) long at the inland extent of the aquifer, and the amount of recharge is sufficient to replenish the quantity of water transmitted to the line of discharge.

3. The altitude of the water levels at the line of recharge remains constant.

4. The hydraulic gradient is constant at 9 ft/mi (1.7 m/km) after a drawdown of 200 feet (61 m) at the line of discharge. The hydraulic gradient in 1975 was about 4 ft/mi (0.8 m/km).

5. The average transmissivity of the Chicot aquifer is 20,000 ft<sup>2</sup>/d (1,858 m<sup>2</sup>/d).

On the basis of these assumptions and by using the U.S. Study Commission method, the Chicot aquifer will ultimately transmit an estimated 50,000 acre-feet (62 hm<sup>3</sup>) of water annually to the line of discharge. This amount of water may be considered as a quantity that could be produced with moderate pumping lifts without depleting the ground-water supply. This quantity is less than the potential recharge rate, which will be considered next.

The quantity of water available as recharge to the Chicot aquifer may be considered as the sum of two

increments. One increment of recharge is the amount of ground water that was moving through the aquifer prior to well development. The other increment is the amount of ground water that was discharged to the streams in the outcrop area prior to well development.

The amount of water that was originally moving through the Chicot annually was about 20,000 acre-feet (25 hm<sup>3</sup>). This amount was calculated from the equation:

$$Q = TIL$$

where Q is the amount of water originally moving through the aquifer, T is the average transmissivity of 20,000 ft<sup>2</sup>/d (1,858 m<sup>2</sup>/d), I is the original hydraulic gradient of about 3 ft/mi (0.6 m/km), and L is the 35-mile (56-km) length of the aquifer across which the water moves.

An estimate of the annual amount of ground water that was originally discharged to the streams in the outcrop area of the aquifer is based on studies by Wood (1956) and others who have studied streamflow records of the Gulf Coast region of Texas to determine if potential recharge was being "rejected."

According to Wood (1956, p. 30-33), in areas that receive 40-50 inches (1,016-1,270 mm) of rainfall per year, probably 1 inch (25 mm) or more of the water that enters the outcrop of an aquifer that is unaffected by pumping is discharged to the streams in the outcrop

areas as base flow. The average precipitation in Colorado, Lavaca, and Wharton Counties is about 40 inches (1,016 mm). One inch (25 mm) of water applied to the 1,100 square miles (2,850 km<sup>2</sup>) of the recharge area of the Chicot aquifer is equivalent to 58,000 acre-feet (72 hm<sup>3</sup>) of potential recharge. This increment of potential recharge, plus about 20,000 acre-feet (25 hm<sup>3</sup>) of ground water moving through the aquifer equals 78,000 acre-feet (96 hm<sup>3</sup>) of water that is estimated to be about the maximum amount perennially available for development from the Chicot without depleting the large quantity of ground water in storage.

The ground water in storage in the Chicot aquifer underlies approximately 75 percent or about 2,250 square miles (5,830 km<sup>2</sup>) of the three-county area. Within this area, the total thickness of the fresh-water sands ranges from 0 at the inland extent of the outcrop in Colorado and Lavaca Counties to more than 450 feet (137 m) in southern Wharton County (Figure 27); the average thickness is about 250 feet (76 m). On the basis of an average sand thickness of 250 feet (76 m) and a specific yield of 0.2, approximately 72.0 million acre-feet (88,776 hm<sup>3</sup>) of fresh water is theoretically available from storage in the sands of the Chicot aquifer in Colorado, Lavaca, and Wharton Counties. About two-thirds of this total amount is in Wharton County. In addition to the amount theoretically available from the sands, a significant amount of water, probably 20-25 percent of the amount available from the sands, would be available from the clays due to compaction.

Estimates of such large amounts of water theoretically available from storage can be misleading, however, because the total amount cannot be recovered without serious consequences, such as land-surface subsidence. In addition, the depths from which it is economically feasible to pump water would be a constraint on development.

A part of this large amount of ground water in storage is presently (1974) being produced from the Chicot aquifer in excess of the estimated annual recharge rate. Water levels may be expected to continue to decline together with some subsidence of the land surface. The wide spacing of wells in the Chicot throughout the three-county area, however, provides a favorable well-distribution pattern that should minimize these problems.

### **Evangeline Aquifer**

In calculating the amounts of water available for development in the Evangeline aquifer, the assumptions were similar to those used in calculating the amounts

available from the Chicot. However, because of the geographic configuration of the three-county area with respect to the outcrop of the Evangeline aquifer, separate calculations of availability were made for Lavaca County.

1. The area of development (line of discharge) is assumed to be in southern Lavaca County in an area of occurrence of thick sands containing fresh water. The line of discharge is 30 miles (48 km) in length, parallel to the coast and to the trend of the outcrop of the Evangeline aquifer. The average distance between the line of recharge and the line of discharge is about 14 miles (22 km).

2. The hydraulic gradient is constant at 17 ft/mi (3.2 m/km) after a drawdown of 200 feet (60 m) at the line of discharge. The 1975 gradient was about 9 ft/mi (1.7 m/km).

3. The average transmissivity of the Evangeline aquifer is 2,400 ft<sup>2</sup>/d (223 m<sup>2</sup>/d).

On the basis of these assumptions, the Evangeline aquifer will ultimately transmit slightly more than 10,000 acre-feet (12 hm<sup>3</sup>) of water annually to the line of discharge in Lavaca County.

In estimating the amount of water available from the Evangeline aquifer in Colorado and Wharton Counties, the 35-mile (56-km) line of discharge was assumed to be in southern Wharton County, where the thick fresh-water sands occur. The distance between the recharge area and the line of discharge is about 50 miles (80 km), and the hydraulic gradient is 13 ft/mi (2.5 m/km) after a drawdown of 200 feet (61 m) at the line of discharge. On the basis of these assumptions, the Evangeline will ultimately transmit approximately 9,200 acre-feet (11 hm<sup>3</sup>) of water annually to the line of discharge in Wharton County.

In the three-county area, therefore, the Evangeline aquifer will transmit annually about 20,000 acre-feet (25 hm<sup>3</sup>) of water to the 200-foot (61-m) lines of discharge. This amount of water, which is less than the recharge rate, is considered to be a quantity that could be produced annually with only moderate pumping lifts without depleting the ground water in storage.

The amount of recharge that is available to the Evangeline aquifer may be considered as the sum of two quantities. This recharge may be estimated by considering the amount of water that moved through the aquifer under predevelopment conditions and the amount of ground water that was discharged by the aquifer to streams in the outcrop area.

Applying the equation:

$$Q = TIL$$

where T (transmissivity) is 2,400 ft<sup>2</sup>/d (223 m<sup>2</sup>/d), I (original hydraulic gradient) is approximately 5 ft/mi (0.9 m/km), and L (length of the aquifer across which the water moves) is 30 miles (48 km) and 35 miles (56 km) for Lavaca County and the Colorado-Wharton County area, respectively, a total of about 6,500 acre-feet (8 hm<sup>3</sup>) of water originally moved as an increment of recharge through the Evangeline in the three-county area.

The amount of ground water that the aquifer discharged to the streams may be estimated by assuming that 1 inch (25 mm) of water is discharged by the aquifer at the outcrop. This 1 inch (25 mm) of water applied to the approximately 600 square miles (1,550 km<sup>2</sup>) of the outcrop of the Evangeline aquifer is equivalent to about 32,000 acre-feet (39 hm<sup>3</sup>) of available recharge. This quantity plus the 6,500 acre-feet (8 hm<sup>3</sup>) that originally moved through the aquifer equals about 38,000 acre-feet (47 hm<sup>3</sup>) of water that may be considered the maximum amount perennially available for development from the Evangeline without depleting the large amount of ground water in storage.

The ground water in storage in the Evangeline aquifer underlies an area of approximately 2,800 square miles (7,250 km<sup>2</sup>), or more than 90 percent of the three-county area. The total thickness of the fresh-water sands ranges from 0 at the outcrop in northwestern Lavaca County to about 470 feet (143 m) in central Wharton County (Figure 28); the average thickness is about 200 feet (61 m). Most of the sands in the Evangeline aquifer contain fresh water, but slightly saline water occurs in some of the deeper sand layers in parts of Colorado and Lavaca Counties and in most of Wharton County.

On the basis of an average thickness of 200 feet (61 m) and a specific yield of 0.2 for the fresh-water sands, about 71.7 million acre-feet (88,400 hm<sup>3</sup>) of fresh water is theoretically available from storage in the sands of the Evangeline aquifer in Colorado, Lavaca, and Wharton Counties. Additionally, from 20 to 25 percent of this amount would also be available from the clays due to compaction as water levels are lowered.

The sand units in the Evangeline aquifer that contain slightly saline water underlie an area of approximately 1,400 square miles (3,600 km<sup>2</sup>). On the basis of an average sand thickness of about 50 feet (15 m) and a specific yield of 0.2, about 9.0 million

acre-feet (11,097 hm<sup>3</sup>) of slightly saline water is theoretically available from storage in the Evangeline aquifer in Colorado, Lavaca, and Wharton Counties.

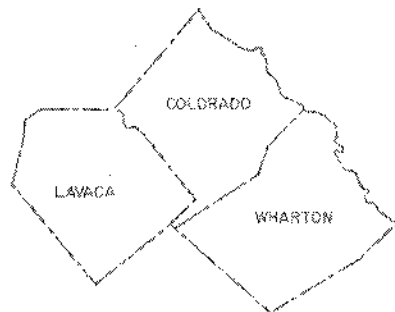
These large amounts of water theoretically available from storage in the Evangeline can be misleading because most of this water cannot be pumped without serious consequences, such as land-surface subsidence and excessive pumping lifts.

Nevertheless, a part of these reserves can be developed and are being developed. In 1974, pumpage from the Evangeline exceeded by 10,000 acre-feet (12 hm<sup>3</sup>) the estimated 38,000 acre-feet (47 hm<sup>3</sup>) of recharge that is about the maximum amount perennially available. Consequently, water levels may be expected to continue to decline together with some subsidence of the land surface. Proper well spacing, such as the wide well-distribution pattern that is common to rice-irrigation practices in the three-county area, is an effective way of dealing with these problems.

### **Jackson Group, Catahoula Sandstone, and Jasper Aquifer**

The Jackson Group in northern Lavaca County is the oldest geologic unit containing fresh water in the three-county area, and the Catahoula Sandstone, which overlies the Jackson Group, contains a small amount of fresh water. Because of the relative insignificance of these units as sources of water, no data have been collected on their potential for additional development. The Jasper aquifer contains fresh water only in northern Lavaca County and in northern and central Colorado County. The Jasper is not a major aquifer in the three-county area because the sands containing fresh and slightly saline water are very thin in comparison to those in the overlying Chicot and Evangeline aquifers.

The fresh-water sands in the aquifers below the Evangeline aquifer underlie an area of approximately 1,200 square miles (3,100 km<sup>2</sup>) and average about 75 feet (23 m) in thickness. The amount of fresh water in storage is about 11.5 million acre-feet (14,180 hm<sup>3</sup>), but only a very small amount of this water can be economically recovered because of the great depths (as much as 1,000-2,000 feet or 305-610 m) at which most of it occurs. The sands containing slightly saline water in the aquifers below the Evangeline aquifer underlie an area of approximately 2,500 square miles (6,500 km<sup>2</sup>) throughout Colorado and Lavaca Counties and in most of Wharton County. On the basis of an estimated average sand thickness of 60 feet (18 m), about 19.2 million



Location map

EXPLANATION

○ 203E WELL USED FOR CONTROL--Number indicates aggregate thickness of sand containing fresh water. "E" indicates estimated

— 200 — LINE OF EQUAL THICKNESS OF SAND CONTAINING FRESH WATER--Dashed where approximately located. Interval 50 feet (15 meters)

NOTE: To obtain meters multiply feet by 0.3048

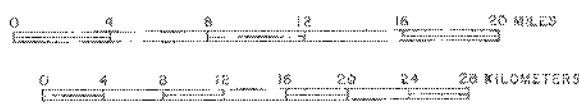
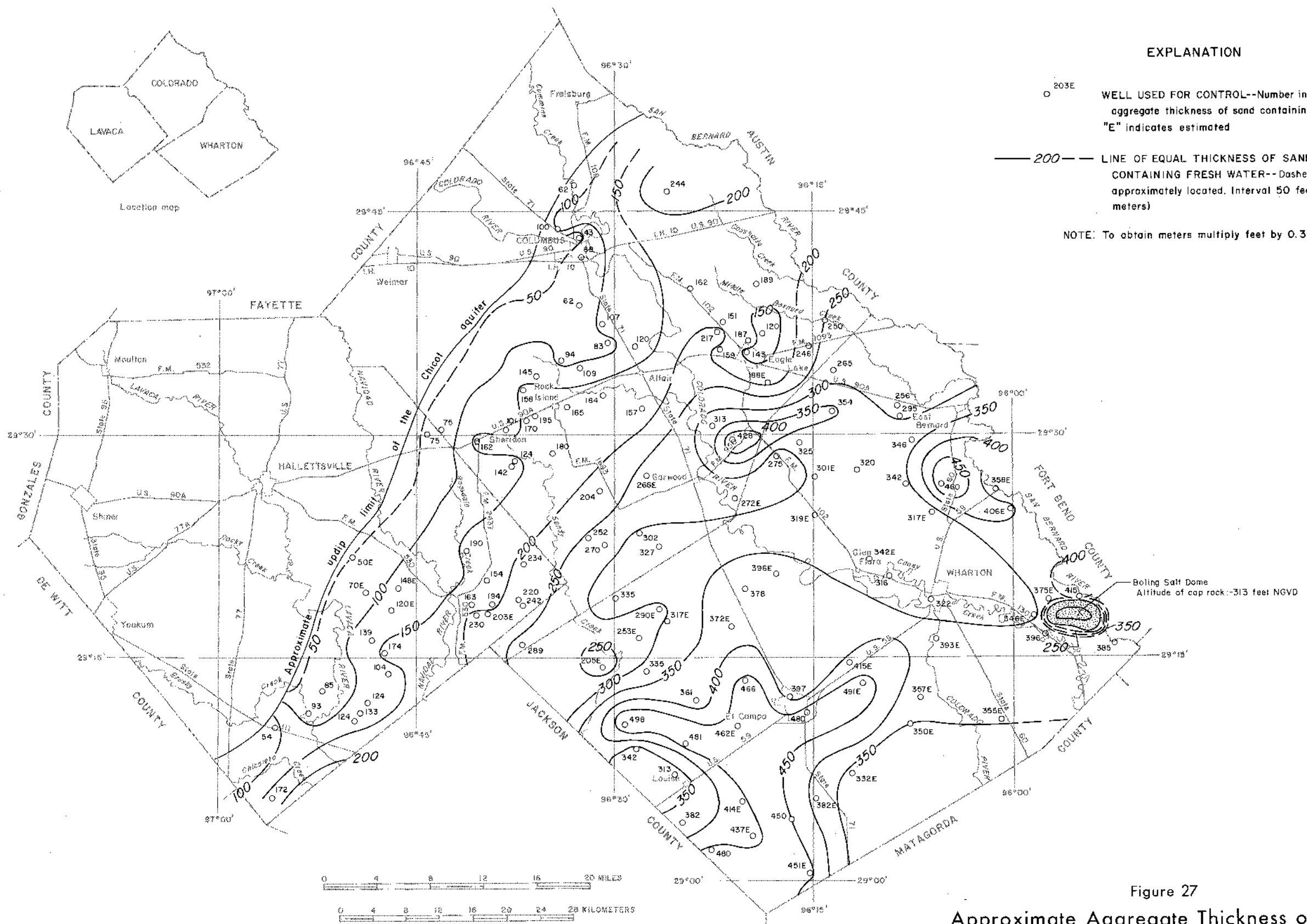
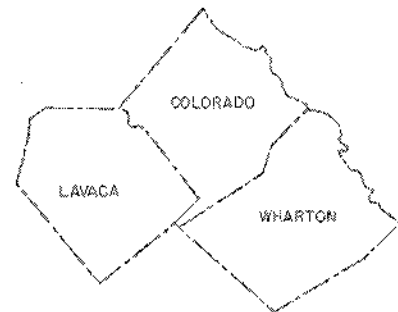


Figure 27

Approximate Aggregate Thickness of Sands Containing Fresh Water in the Chicot Aquifer

Base from U.S. Geological Survey topographic quadrangles





Location map

EXPLANATION

○ 228 WELL USED FOR CONTROL--Number indicates aggregate thickness of sand containing fresh water

— 200 — LINE OF EQUAL THICKNESS OF SAND CONTAINING FRESH WATER--Dashed where approximately located. Interval 100 feet (30 meters)

NOTE: To obtain meters multiply feet by 0.3048

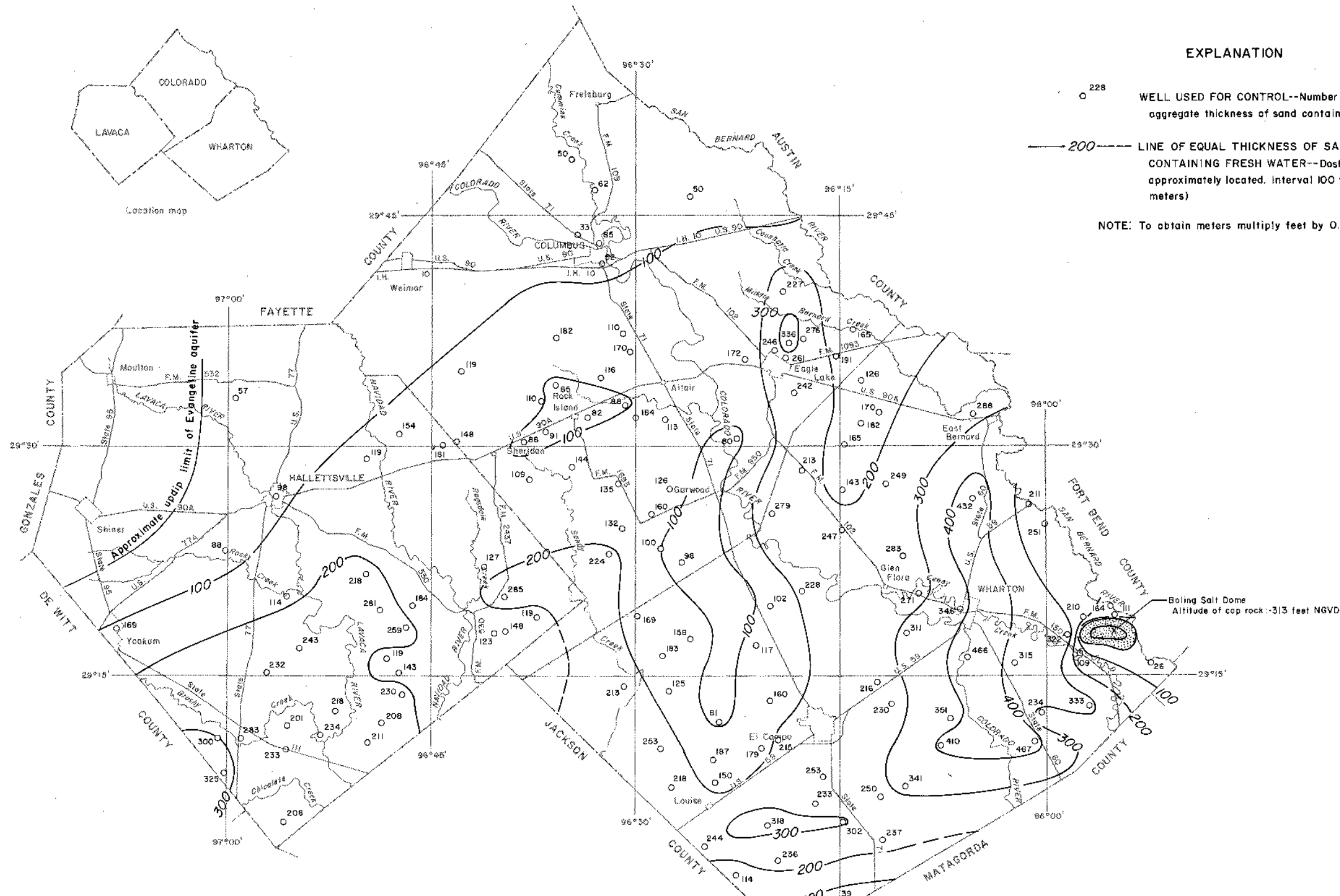


Figure 28

Approximate Aggregate Thickness of Sands Containing Fresh Water in the Evangeline Aquifer





acre-feet (23,674 hm<sup>3</sup>) of slightly saline water is in storage below the Evangeline aquifer.

### Areas Most Favorable for Ground-Water Development

The areas in Colorado, Lavaca, and Wharton Counties that are the most favorable for future development of fresh ground-water supplies are indicated by the values of transmissivity shown on Figure 29. This map was constructed by multiplying the average hydraulic conductivity of the Chicot and Evangeline aquifers by their respective thickness of fresh-water sands. The average hydraulic conductivity was determined from aquifer tests that were selected to determine the transmissivities of the aquifer.

The areas of highest transmissivity are in Wharton County. Because of the high transmissivities of the Chicot aquifer, about two-thirds of the three-county area is suitable for additional ground-water development where at least 50 feet (15 m) of sand occurs in the aquifers. The areas least favorable for future development are the areas in northwestern Colorado County and all the southern part of Lavaca County, where transmissivities are less than 5,000 ft<sup>2</sup>/d (460 m<sup>2</sup>/d).

### WELL CONSTRUCTION

The method of well construction in Colorado, Lavaca, and Wharton Counties depends upon the desired capacity of the well, the intended use of the water, the allowable cost of construction, and the preferences of individual drillers. Most of the recently constructed small-capacity wells, such as those used for rural-domestic and livestock needs, were drilled by hydraulic-rotary equipment. These wells range from 3 to 6 inches (8 to 15 cm) in diameter and commonly use 2- to 4-inch (5- to 10-cm) casing and screens. Each well is usually completed by screening a single interval of 4 to 20 feet (1.2 to 6.1 m) in the water-bearing zone. Most of the wells are equipped with jet or submersible pumps powered by electrical motors.

Large-capacity wells, such as those used for irrigation, industry, or public supply are also drilled by hydraulic-rotary methods. First, a test hole about 6 inches (15 cm) in diameter is drilled and logged to determine the depths and thicknesses of the sand intervals. The test hole may also be used to determine the aquifer characteristics and water quality. If the test-hole log and other data indicate that suitable water-bearing sands are present, the test hole is then

reamed to complete the well. The wells are usually fitted with deep-well turbine pumps powered by internal-combustion engines or electric motors.

The upper part of a test hole for a municipal-supply or industrial well is usually reamed 14 to 30 inches (36 to 76 cm) in diameter. A slightly smaller surface casing is set and cemented in place to form the pump pit. The remaining part of the test hole is then reamed to a diameter less than that of the surface casing. The interval to be screened is then underreamed to about 30 inches (76 cm) in diameter, and 8- to 12-inch (20- to 30-cm) diameter wire-wrapped screens and blank casing are installed. The annular space between the screen or casing and the wall of the hole is filled with gravel. This "gravel pack" stabilizes the hole, increases the effective diameter of the well, and provides a transfer medium for the water moving from the sand into the well.

The construction of rice-irrigation wells usually differs from the construction of municipal-supply and industrial wells, which are usually screened in selected sand units. The test hole for an irrigation well is usually reamed throughout the entire depth of the well, and a string of slotted casing, extending from near the surface or from a few hundred feet below the surface is installed through the remaining depth of the well. The space between the casing and the wall of the hole is filled with gravel from the bottom of the well to the land surface. This type of well construction, rather than selective screening, does not always produce water of the best quality available; but if the water is suitable for irrigation, this method of construction is highly effective.

### LAND-SURFACE SUBSIDENCE

The major cause of land-surface subsidence in Colorado, Lavaca, and Wharton Counties is the withdrawal of water from the artesian aquifers. According to Meinzer and Wenzel (1942, p. 458), the water pressure in an artesian aquifer provides a buoyant effect that helps support the aquifer. When the water pressure is reduced, the buoyant effect is reduced and an additional load is transferred to the skeleton of the aquifer. A pressure difference between the sands and clays causes water to move from the clays to the sands. This causes compaction of the clays, which in turn results in subsidence of the land surface.

The amount of land-surface subsidence that has occurred may be determined by comparing the altitudes of bench marks over a period of time. The National Geodetic Survey determined and redetermined the

altitudes of a line of bench marks in Colorado, Lavaca, and Wharton Counties between 1933 and 1973, but the extent of land-surface subsidence is generally unknown in most of the three-county area because the altitudes in approximately one-half of the area, including most of Wharton County, have not been redetermined since the original surveys in the early 1940's. Another large part of the three-county area was originally surveyed in the early 1930's and surveyed again in the early 1940's. The northern part of Wharton County was surveyed in 1957, but most of the county has not been surveyed since the 1940's.

In the area in which the bench-mark altitudes were redetermined in 1973, the amount of land-surface subsidence can be determined. At Hallettsville, for example, 0.256 foot (0.078 m) of subsidence occurred between 1933 and 1973, while only 0.043 foot (0.013 m) of subsidence occurred before 1943. In Jackson County, near the Wharton County line, the land surface subsided 0.571 foot (0.174 m) between 1943 and 1973. The greatest amount of land-surface subsidence measured in the three-county area is in southeastern Lavaca County, where 0.702 foot (0.214 m) of subsidence occurred between 1935 and 1973.

Because of a lack of subsidence data in Colorado, Lavaca, and Wharton Counties, especially in Wharton County, data from surrounding counties were used to estimate the amount of subsidence within these three counties. Most lines of bench marks, for which altitudes were redetermined in the early 1970's, as in Matagorda County, show less than 1 foot (0.3 m) of subsidence; and only a few bench marks in eastern Jackson County have subsided more than 1 foot (0.3 m). At Francitas in Jackson County, the data indicate subsidence of about 2 feet (0.6 m) between 1918 and 1973, with approximately 1.7 feet (0.5 m) of the subsidence occurring between 1952 and 1973. The increase in the rate of subsidence in this area coincides with the introduction of the two-crop rice season and the increased withdrawals of ground water in the early 1950's.

## NEEDS FOR ADDITIONAL STUDIES

The program of measuring water levels in observation wells should be continued in Colorado, Lavaca, and Wharton Counties; and the program should be expanded to include measurements in wells in areas of recent ground-water development. In addition, an expanded program of aquifer tests would be helpful in defining more accurately the hydraulic characteristics of the aquifers. A program to collect water-quality data on

a continuing basis should be initiated to monitor the possible encroachment of salt water. A program for measuring subsidence is needed in the three-county area, especially in areas of large ground-water pumping for rice irrigation. This program should be coordinated with the program of collecting water-level and pumping data so that correlations can be made between subsidence and ground-water withdrawals.

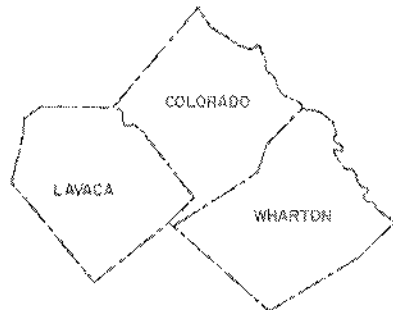
## SUMMARY

The Chicot and Evangeline aquifers, which are recharged by the infiltration of rainfall in the outcrop areas, are the main sources of fresh water for all uses in Colorado, Lavaca, and Wharton Counties; and most of the water is obtained from the Chicot aquifer, which overlies the Evangeline aquifer. The Jackson Group, Catahoula Sandstone, and Jasper aquifer are minor sources of water and are largely undeveloped in the area.

The Chicot aquifer, which consists of discontinuous layers of sand and clay of about equal aggregate thickness, ranges in total thickness from 0 in the outcrop area to more than 1,000 feet (305 m) in southern Wharton County. In places, the sand units containing fresh water are as much as 500 feet (152 m) thick. The Evangeline aquifer, which also consists of discontinuous sand and clay layers, ranges in total thickness from 0 at the outcrop to about 1,500 feet (457 m) in Wharton County. The aggregate thickness of the sand units containing fresh and slightly saline water is as much as 470 feet (143 m). The combined thicknesses of the fresh-water sands in the Chicot and Evangeline aquifers range from 0 at the outcrop to more than 850 feet (259 m) in Wharton County. The average sand thickness is about 250 feet (76 m) in the Chicot aquifer and about 200 feet (61 m) in the Evangeline aquifer.

The interface between the fresh and slightly saline water is irregular, and in some areas, the fresh, slightly saline, and moderately saline waters occur in vertical layers. Where the sand units are thick, as in south-central Wharton County, fresh water is available at depths of almost 2,200 feet (670 m). In Colorado and Lavaca Counties, where the aquifers are not as thick as in Wharton County, fresh water occurs in the Jasper aquifer and Catahoula Sandstone below the base of the Evangeline aquifer. The shallowest depth at which slightly saline water is encountered is about 800 feet (244 m) in the northwestern part of Lavaca County.

Daily withdrawal of ground water for all uses in 1974 was 252 million gal/d (954,000 m<sup>3</sup>/d), most of which was used for rice irrigation. Smaller amounts of



Location map

EXPLANATION

- AQUIFER TEST SITE--Shows location of well at which transmissivities were determined
- 20,000— LINE OF EQUAL TRANSMISSIVITY --Increasing values indicates areas most favorable for future development. Interval: 5000 ft<sup>2</sup>/day (465 m<sup>2</sup>/day)

NOTE: To obtain square meters multiply square feet by 0.0929

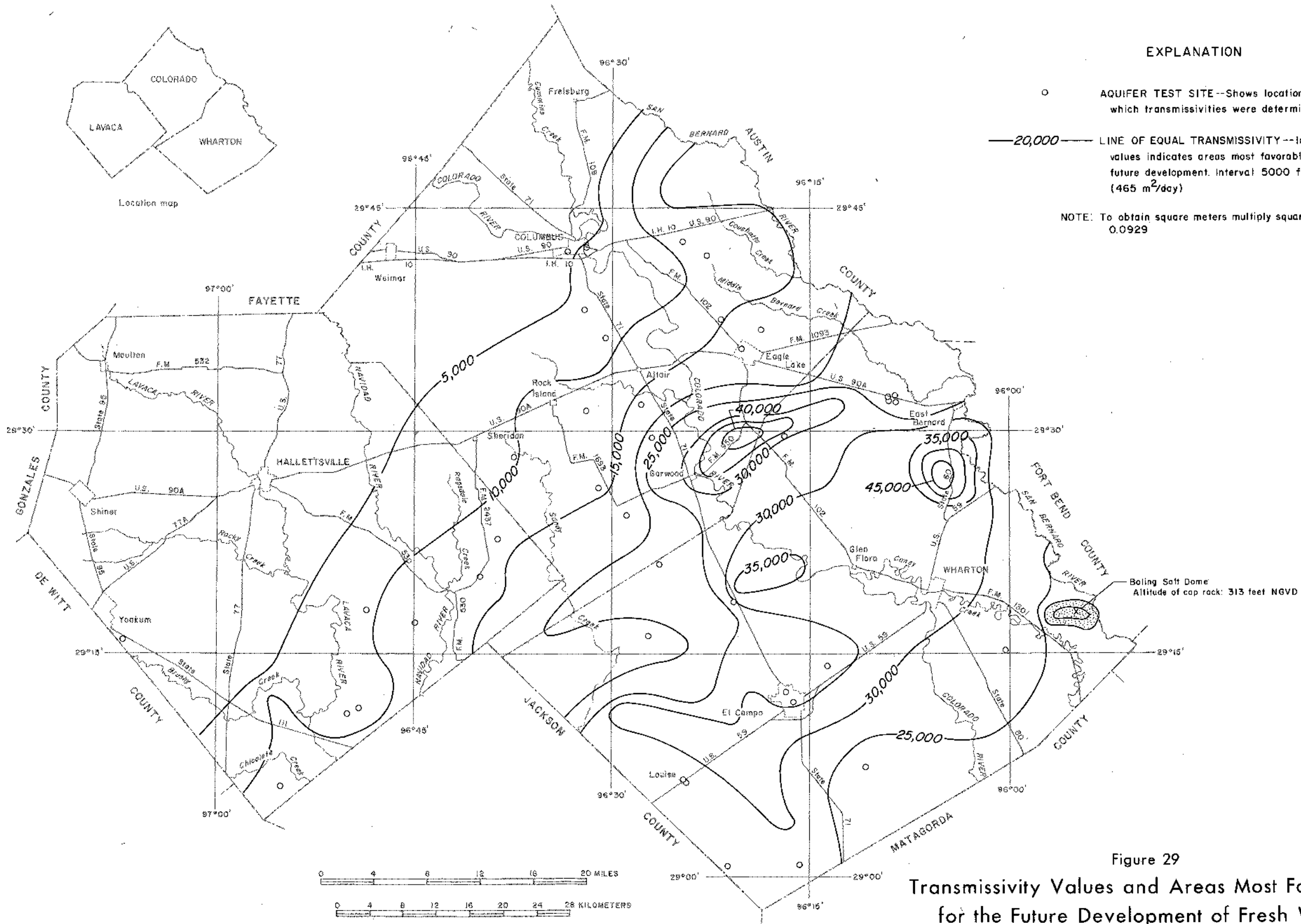


Figure 29  
 Transmissivity Values and Areas Most Favorable  
 for the Future Development of Fresh Water  
 in the Chicot and Evangeline Aquifers

Base from U.S. Geological Survey  
 topographic quadrangles



water were pumped for municipal supply and industrial use. Estimates of the amounts of fresh and slightly saline water theoretically available from storage in the sands were based on average sand thicknesses of 250 feet (76 m) and 200 feet (61 m) in the Chicot and Evangeline aquifers, respectively, and a specific yield of 0.2. The Chicot aquifer contains about 72.0 million acre-feet (88,776  $\text{hm}^3$ ) of fresh water available from storage, and the Evangeline aquifer contains about 71.7 million acre-feet (88,406  $\text{hm}^3$ ) of fresh water and about 9.0 million acre-feet (11,097  $\text{hm}^3$ ) of slightly saline water available from storage. The Jackson Group, Catahoula Sandstone, and Jasper aquifer together contain about 11.5 million acre-feet (14,180  $\text{hm}^3$ ) of fresh water and about 19.2 million acre-feet (23,674  $\text{hm}^3$ ) of slightly saline water in available storage. Additional amounts of water, probably 20-25 percent of the amounts available from the sands, would be available in the clays.

Estimates of such vast amounts of water theoretically available from storage can be misleading, because it is probable that these amounts cannot be recovered without serious consequences. More practical guides to a judicious development of the water supply were based on theoretical lines of recharge and discharge with drawdowns of 200 feet (61 m) at the lines of discharge and also were based on potential recharge. On the basis of theoretical lines of recharge and discharge and drawdowns of 200 feet (61 m), about 50,000 acre-feet (62  $\text{hm}^3$ ) and 20,000 acre-feet (25  $\text{hm}^3$ ) could be produced from the Chicot and Evangeline aquifers, respectively, with only moderate pumping lifts without depleting the vast amount of ground water in storage. These indices of availability are less than the estimated potential amounts of recharge that are available to the aquifers. Estimates of the potential recharge are 78,000 acre-feet (96  $\text{hm}^3$ ) per year for the Chicot and 38,000 acre-feet (47  $\text{hm}^3$ ) per year for the Evangeline. These recharge estimates may be viewed as about the maximum amount perennially available without depleting the large quantities of ground water in storage.

Present (1974) pumpage from the Chicot and Evangeline aquifers exceeds the estimated recharge rates.

For this reason, water levels may be expected to continue to decline, along with some land-surface subsidence.

Additional development of the ground-water resources is possible throughout most of Colorado, Lavaca, and Wharton Counties; but the attendant consequences of more land-surface subsidence and declining water levels should be considered. The most favorable areas for additional development are in central Wharton County. Additional potential for development exists in most other areas where as much as 50 feet (15 m) of sand occurs in the Chicot aquifer.

Considerable amounts of brine are produced in Colorado, Lavaca, and Wharton Counties in conjunction with the production of oil and gas. In 1967, about 3,500 acre-feet (4.3  $\text{hm}^3$ ) of brine was produced. To prevent possible contamination of the fresh water, the Railroad Commission of Texas requires that oil and gas wells must have cemented casings from the land surface to the base of the slightly saline water. Presently (1977), the fresh water is adequately protected in most of the oil fields by the rules for the required amount of cemented casing. The elimination of brine-disposal pits has minimized contamination by this method of salt-water disposal, but contamination may still occur through improperly cased wells, abandoned injection wells, and abandoned brine-disposal pits. Some previously open pits in the Pickett Ridge, Magnet-Withers, Withers North, Bernard Prairie, Boling, and Niels Carlsen fields may already have contaminated the shallow fresh water in the vicinity of these fields.

Land-surface subsidence is not a problem at this time. However, more data are needed to determine the extent of subsidence and the relationship between the amount of ground-water withdrawals and the amount of subsidence. The available data indicate that maximum subsidence within the three counties is less than 1 foot (0.3 m), and in most places is less than 0.5 foot (0.15 m).

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Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties

Water-bearing unit: B--Burkeville confining layer, C--Chicot aquifer, Ca--Catahoula Sandstone (Tuff), E--Evangelina aquifer, J--Jasper aquifer.

Method of lift: A--airlift; B--bucket; C--cylinder; E--electric; G--natural gas, gasoline, oil, butane, or diesel engine; H--hand; J--jet; N--none; P--piston; S--submersible; T--turbine; W--windmill. Number indicates horsepower.

Use of water: D--domestic, Ind--industrial, Irr--irrigation, N--none, P--public supply, R--recreation, S--livestock, U--unused.

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
COLORADO COUNTY													
DW-66-04-501	Julian Salguero	Pomykal Drilling Co.	1970	350	--	350	E	360	112.2 110.6	1- 2-74 2-27-75	T,C,80	R	
502	do.	--	--	42	4	42	E	402	36.8	1- 2-74	S,E	D	
503	Stratford Hog Farm	Pomykal Drilling Co.	1967	336	8	336	E	350	99.0	do.	S,E, 7 1/2	S	Casing slotted 187-215, 270-309, and 313-336 feet; drilled to 424 feet. <u>1/</u>
701	Edwin Malinowski	M&H Water Well Drilling	1967	187	4	187	E	298	70	11-18-67	S,E,3/4	D	Open-hole completion.
801	Justin Dvorak	L&N Drilling Co.	1971	179	4	179	E	361	113	6-19-71	S,E	D	Screened 167-173 feet.
802	Jimmy Gerik	Pomykal Drilling Co.	1967	158	4	158	E	391	101	6-19-67	J,E	D	Casing slotted 148-158 feet.
803	Leroy Stein	L&N Drilling Co.	1973	175	4	175	E	354	127	2-28-73	S,E	D	Casing screened 167-173 feet.
804	Ike Orsak	Leroy Richter Water Well Drilling	1973	79	4	79	E	362	42.5 41.6	1-23-74 2-27-75	N	D	Pump not installed at time of inventory.
903	Curley Price	Tipp Water Well Service	1967	90	4	90	E	335	38	8-10-67	S,E,1/3	D	Screened 82-90 feet.
10-905	Walzell Bros.	Bob Shellman	1956	257	8	257	E	372	167.0 162.0	3- 6-74 2-27-75	T,E,30	Irr	Reportedly pumped 300 gal/min, 1959. <u>2/</u>
11-207	Harry Schobel	Pomykal Drilling Co.	1967	179	4 2	169 179	E	376	72	3-28-67	S,E,1/2	D	Casing slotted 169-179 feet.
301	G. Heffington	do.	1971	199	4	199	E	318	130	11- 3-71	--	D	Casing slotted 168-199 feet.
302	Edwin Maynard	L&N Drilling Co.	1968	140	4	140	E	458	124 124	7- 5-68 10- -73	S,P	S	Water reportedly unfit for drinking; casing slotted 126-140 feet. <u>3/</u>
303	Henry Kovar	Pomykal Drilling Co.	1968	141	4 2	121 141	E	402	83	3- 4-68	J,E,1	D	Casing slotted 120-141 feet.
504	Paul Petrofsky	L&N Drilling Co.	1971	96	4	96	E	265	35	5- 6-71	S,E,1/2	D	Screened 83-89 feet.
505	Anton Kallis	do.	1967	127	4	127	E	329	85	9- 7-67	J,E,1/2	D	Casing slotted 112-126 feet.
506	Crockett Leyendecker	do.	1969	55	4	55	E	285	44	5-20-69	J,E,1/2	D	Casing slotted 48-55 feet.
601	Rancho Cullen	do.	1969	350	4	350	B	334	151	8- 2-69	S,E,3	D,S	Screened 319-329 feet.
602	do.	Oil Well Driller	1943	1100	7	1100	Ca	275	+	2-12-74	J,E	S	Flowed about 6 gal/min 2-12-74; has auxiliary electric pump; converted oil test. <u>3/</u>
603	do.	--	--	42	23	42	E	312	29.8	do.	W	S	Dug well, curbed with concrete.
703	Kervy Kahden	Markus Ploeger	1957	270	4	270	E	351	--	--	--	--	<u>3/</u>

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-11-704	McClellan Wallace	Leroy Richter Water Well Drilling	1969	672	4	672	J	352	123	12-29-69	S,E,1/2	D	Casing slotted 646-672 feet.
801	Scheel Estate	L&N Drilling Co.	1966	44	4	44	C	212	25.1 21.9	1-11-74 2-27-75	J,E,1/2	S	Casing slotted 35-44 feet.
802	Bennie Schobel	--	--	15	30	15	C	217	10.7 11.1	2-11-74 2-27-75	J,E,3/4	D	Dug well, concrete casing.
803	C. Trefny	--	1948	27	8	27	C	212	24.0 22.4	3- 6-74 2-27-75	N	N	Has sand point in bottom to prevent caving.
804	Ewald Brandt	Markus Ploeger	1955	120	6	120	E	350	100	1955	S,R,3/4	D	
901	Lloyd Poenitsch	H&H Water Well Drilling	1969	58	4 3	30 58	C	241	31	9-15-69	J,E,1/2	D	Casing slotted 32-58 feet.
902	Garland Polasek	L&N Drilling Co.	1964	232	4	232	E	300	94	1-16-64	S,E,3/4	D	Casing slotted 201-211 feet.
12-101	Lawrence Hoeischer	H&H Water Well Drilling	1969	130	4	130	E	239	50	8-13-69	--	D	Open hole; temperature 22°C (71°F).
102	H. D. Mrkwa	do.	1971	161	4	161	E	301	90	4-28-71	S,E,3/4	D	
103	George Meith	Pomykal Drilling Co.	1968	92	4	92	E	248	23	10- 2-68	S,E,1	D	Casing slotted 71-92 feet.
201	Edgar Heinsohn	L&N Drilling Co.	1970	79	4	79	E	310	20.0 22.8	1-22-74 2-27-75	S,E,1	D	Screened 68-74 feet.
202	Ray Glasscock	do.	1970	175	4	175	E	285	65	4-29-70	S,E,1/2	D	Screened 164-170 feet.
203	D. F. Gould	Pomykal Drilling Co.	1971	199	4 2	169 199	E	312	95	12-29-71	S,E,1/2	D	Casing slotted 169-199 feet.
204	H. H. Westphal	H&H Water Well Drilling	1971	140	4	140	E	317	37	3- 7-71	S,E,1/3	D	Open hole.
205	Justin Kubicek	Pomykal Drilling Co.	1970	169	4 2	148 169	E	320	105 106.6	5- 1-70 1-22-74	S,R,1/2	D	Casing slotted 148-169 feet.
301	Unit Petroleum	--	1943	300	4	300	F	305	106.3 106.1	8-30-74 2-27-75	A	N	Originally drilled for Sinclair Oil Co.
302	Kenneth Warachak	L&N Drilling Co.	1973	420	4	420	B?	315	119	11- 3-73	S,E,3/4	D	Screened 405-411 feet. 3/
303	Cooper Kellum	do.	1970	437	4	437	B?	315	123	4-27-70	S,E,1	D	Screened 419-425 feet.
304	A. R. Lindquist	Pomykal Drilling Co.	1970	290	4	290	B?	344	137	10- 8-70	S,E,1/2	D	Casing slotted 248-290 feet.
401	W. A. Flint	L&N Drilling Co.	1969	141	4	141	C	321	92	6-13-69	S,E,3/4	D	Screened 123-129 feet.
501	W. B. Harris	Pomykal Drilling Co.	1971	62	4	62	C	280	37	9- 1-71	--	S	
502	Emil Ordner	Wendt Well Service	1968	87	4	87	C	230	64	8- 9-68	--	D	Casing slotted 79-87 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-12-601	Charles Leyendecker	Charles Ressoan	1964	106	3	106	E	325	18	1964	J,S,1/2	D	
602	Rancho Cullen	B&P Drilling Contractors	1965	360	4	360	E	312	--	--	A	N	Casing slotted 324-360 feet; jetted with air at rate of 250 gal/min 3-17-65.
701	V. L. Marek, Sr.	Wood Drilling Co.	1965	87	4	87	C	282	56	11- 3-65	--	D	
702	Rancho Cullen	L&N Drilling Co.	1965	480	4	480	E	306	148	5-10-56	W	S	Casing slotted 459-480 feet.
801	John Hastedt	--	--	108	4	108	C	281	95.4 81.6	2-12-74 2-27-75	W	S	
802	Rancho Cullen (at Quintanna #2)	--	--	245	4	245	E	240	53.6	2-12-74	A	Ind	
803	John Schobel	--	--	300	4	300	E	282	102.8 101.2	do. 2-27-75	A	Ind	
804	Cullen, et al #2	Quintana Petroleum Corp.	1956	10195	--	--	--	240	--	--	--	N	Oil test included in cross section. <u>4/</u>
901	Mrs. H. Williard	Pomykal Drilling Co.	1969	149	4 2	128 149	C	284	85	6- 2-69	S,R,1/2	D	Casing slotted 128-149 feet.
902	A. W. Sneed	L&N Drilling Co.	1953	256	4	256	C	292	70	1953	S,E,1/2	D	
903	Jack Rau	Ray Woods	1953	160	4	160	C	234	60	do.	S,E,1/2	D	
13-101	Jim Kubos	J&S Well Service	1964	120	4	120	C	387	--	--	S,E,1/2	D	
102	James Parr	--	1967	191	4	191	C	412	120	1967	S,E,1/2	D	<u>3/</u>
202	Logan Karasek	Tipp Water Well Service	1971	184	4	184	E	322	116	8- 2-71	--	D	Casing slotted 176-184 feet.
401	C. Hawthorne	L&N Drilling Co.	1964	168	4	168	C	341	90	9- -64	S,E,1	D	Casing slotted 162-168 feet.
501	W. C. Smith	do.	1969	151	4	151	C	336	73	4- 3-69	S,E,1/2	D	Screened 140-146 feet.
502	Gene Marsh	Tipp Water Well Service	1971	108	4	108	C	330	62	1-18-71	S,E,1/2	D	Screened 100-108 feet.
503	B. C. McConnell	do.	1972	211	4	211	C	359	97	11-13-72	--	D	Casing slotted 203-211 feet.
504	do.	do.	1971	190	4	190	C	350	88	2-18-71	S,E,3/4	D	Casing slotted 182-190 feet.
603	John P. Wendel	do.	1968	92	4	92	C	308	22	2- 7-68	S,E,1/3	D	Screened 84-92 feet.
604	S. L. Bittman	do.	1972	118	4	118	C	279	57	1-20-72	S,E,1/2	D	Casing slotted 110-118 feet.
605	Old Bretschneider place	--	--	62	4	62	C	308	13.3	1-15-74	N	N	
701	Walter Frers	L&N Drilling Co.	1969	280	4	280	C	271	180	7-18-69	S,E,3/4	D	Screened 265-271 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-56-13-702	Walter Kansteiner	Woods & Etheridge	1956	198	4	198	R	306	88 72.3	Fall 1956 2-26-75	S,E,3/4	D	Casing slotted 178-198 feet.
801	Anthony Baumbach	Wendt Well Service	1972	123	4	123	C	312	91	1-25-72	S,R,1/2	D	Casing slotted 115-123 feet.
802	Emmett Berger	do.	1971	139	4	139	C	334	74	7- 2-71	S,E,1/2	D	Casing slotted 119-139 feet.
803	Leslie Miller	Johnson Water Well Service	1968	108	4	108	C	276	57	10-28-68	J,R,1	D	
901	C. Wicke	L&N Drilling Co.	1962	96	4	96	C	253	30	1962	S,E,1/2	D	
902	Leander Uhlig	--	1887	45	41	45	C	264	17.6 31.2	5-26-37 1-15-74	S,E,1/2 W	D S	Dug well. <u>3/</u>
14-401	#1 Kinkler	Moore & Akeen	1940	5009	--	--	--	310	--	--	--	--	Oil test.
402	T. M. Greiner	Tipp Water Well Service	1970	75	4	75	C	278	53	5-18-70	S,E,1/2	D	Casing slotted 67-75 feet.
503	Joe Agnello	Ellis Water Well Drilling	1971	231	4	231	C	261	68	3-21-71	S,E,1	D	Screened 221-231 feet.
701	Leslie Reichardt	Tipp Water Well Service	1970	99	4	99	C	245	47	9-17-70	S,E,1/2	D	Casing slotted 91-99 feet.
702	Robert Horvey	L&N Drilling Co.	1971	148	4	148	C	248	82	6- 3-71	S,E,3/4	D	Screened 134-140 feet.
703	Fred Menke	Tipp Water Well Service	1968	71	4	71	C	263	33	2- 1-68	S,E,1/3	D	Screened 63-71 feet.
802	Ervin Stahl	I. Uhlig	1947	84	3	84	C	272	58.6	1-15-74	J,E,1/2	D	Screened 66-70 feet. <u>3/</u>
18-301	Walzell Bros.	Leroy Richter Water Well Drilling	1968	269	4	269	E	362	160	1-15-68	S,E,1	S	Casing slotted 225-269 feet.
302	Arthur Bekin	L&N Drilling Co.	1967	210	4	210	E	342	118	3-28-67	S,E,1/2	D	Screened 183-189 feet.
501	Boyd Head	Markus Ploeger	1958	120	4	120	E	375	68.1	1-24-74	S,E,1/2	D	Screened 114-120 feet.
502	do.	Leroy Richter Water Well Drilling	1970	420	4	420	J	377	130.4	1-29-74	S,E,5	S	Casing slotted 399-420 feet; test hole to 436 feet. <u>3/</u>
503	N. G. Dahse	--	1918	70	30	70	E	361	62.3	1-30-74	J,E,1/2	D	Dug well.
601	City of Weimar #1	Layne-Texas Co.	1926	602	16	602	J	404	197.5	11- 1-73	T,E,25	P	Screened 244-292, 522-565, 571-584 feet. <u>1/ 2/ 3/</u>
602	City of Weimar #2	A. E. Fawcett	1937	605	8	605	J	415	169.2 207 205	4-16-37 1- 7-57 10- 4-72	T,E,25	P	Screened 220-275, 320-330, and 521-592 feet; pumping level 187 feet after 36 hours at 153 gal/min 3-16-37. <u>1/2/3/</u>
603	City of Weimar #3	Markus Ploeger	1955	590	10	590	J	405	197 197	10- -55 8-14-58	T,E,50	P	Screened 526-551 and 554-584 feet; reported pumping level 365 feet after 10 hours at 325 gal/min 8-18-58. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-18-604	City of Weimar #4	Markus Ploeger	1957	957	10	957	J	397	72 176 216.8	9- -57 3-26-73 3- 7-75	T,E,50	F	Screened 930-957 feet; reported pumping level 380 feet after 7 hours at 263 gal/min; static level 79 feet, 1958. Test hole to 1023 feet. <u>3/</u>
605	City of Weimar #5	Crowell Drilling Co.	1964	1984	10 6	1685 1984	J-Ca	405	226.6 190.2	11- 1-73 3- 7-75	S,E,100	F	Screened 1685-1778, 1784-1828, 1854-1862, 1874-1924, and 1954-1984. Reported pumping level 800 feet at 110 gal/min, static level 245 feet, 1965; static level 252 feet 8-22-72. Test hole to 2385 feet. <u>3/</u>
606	Ronnie Chamrad	L&N Drilling Co.	1973	108	4	108	E	408	44	6- 1-73	S,E,1/2	D	Screened 102-108 feet.
607	Johnny Elstner	Leroy Richter Water Well Drilling	1964	243	4	243	E	402	--	--	J,E,1/2	D	Open-hole completion.
608	Weimar Hydroponics	Markus Ploeger	1973	165	4	137	E	415	85	4- 5-73	S,E,1/2	Irr	Used to water greenhouse tomatoes; open-hole completion.
703	Emil G. Shumbera	do.	1952	114	4	114	E	324	100	1952	S,E,1/2	D	
704	Alvin Berger	do.	1969	117	4	117	E	305	81	9-11-69	S,E,3/4	D	Open-hole completion.
705	George Young	do.	1971	75	4	75	E	369	57	9-25-71	S,E,1/2	D	do.
801	Olin Napman	Leroy Richter Water Well Drilling	1964	451	4	451	B?	312	78	9- -64	S,E, 7 1/2	S	Casing slotted 410-451 feet; water reportedly has sulfur odor.
901	A. Rosenbaum	--	1870	32	34	32	E	354	17.8	1-29-74	J,E,1/3	D	Dug well; curbed with concrete.
902	Charlie Schumbera	Leroy Richter Water Well Drilling	1970	168	4	168	E	326	119	3-20-70	S,E,1/2	D	Casing slotted 147-168 feet; test hole drilled to 180 feet.
903	J. T. Ainsworth	do.	1967	470	4	470	E	352	129	7-13-67	S,E,1/2	D	Casing slotted 434-470 feet; open-end completion; test hole drilled to 502 feet.
19-101	Annie Witt	L&N Drilling Co.	1967	189	4	189	E	392	142	6-10-67	S,E,1/3	D	Casing slotted 175-189 feet.
102	Malcolm Hunter	Leroy Richter Water Well Drilling	1970	227	4	210	E	333	139	7- 1-70	S,E,1/2	D	Casing slotted 189-210 feet; open-hole completion.
201	Oscar Henry	Markus Ploeger	1970	88	4	88	E	331	79	8-10-70	S,E,1/2	D	Open-hole completion.
202	A. J. Wray	--	--	64	4	64	E	326	47.1 46.5	3- 6-74 3- 6-75	S,E,1/2	D	
301	Hollis Massey	L&N Drilling Co.	1970	103	4	103	C	243	39	12-31-70	S,E,1/2	D	Casing slotted 92-103 feet.
401	L. E. Poppe	Markus Ploeger	1970	157	4	157	E	390	129	3-26-70	S,E,1/2	D	Open-end completion.
402	H. H. Moore, Jr.	do.	1969	191	4	191	E	410	170 166.9	2- 4-69 2-14-74	S,E,1	D	do. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-19-403	Bernice E. Kubesch	Frank Fruka	1974	60	4	60	E	372	30.8	3- 6-74	S,E,1/2	D	
501	Edwin Kainer	L&N Drilling Co.	1972	243	4	243	E	352	137	9- 8-72	S,E,1/3	D	Screened 230-236 feet.
502	A. Marx	do.	1971	58	4	58	E	300	23	3-16-71	S,E,1/2	D	Casing slotted 49-58 feet.
503	Paul Wynne	Leroy Richter Water Well Drilling	1972	361	4	361	E	312	165	8- 2-72	S,E,1/2	D	Casing slotted 340-361 feet.
504	Frank Kojek, Sr.	Joe Fruka	1956	31	4	31	E	312	15	9- -73	S,E,3/4	D	Water reportedly unfit for watering greenhouse tomatoes.
601	Lawrence Hodde	Allen & Johnson	1928	80	4	80	E	294	18.6	1-24-74	S,E,1/3	D	
602	do.	L&N Drilling Co.	1950	240	4	240	E	322	120	1950	S,E,1/3	D	
603	Howard Besch	do.	1973	165	4	165	E	299	94.6	1-28-74	S,E,3/4	D	Screened 147-153 feet.
604	Oliver Wegenhoft	do.	1964	210	4	210	E	360	100	1964	S,E,1/2	D	3/
605	Charles Hatterman	B&P Drilling Contractors	1964	441	4	441	E	292	--	--	N	N	Well destroyed; casing slotted 179-224 and 400-441 feet.
701	H. G. Long	L&N Drilling Co.	1973	184	4	184	E	375	92	6-20-73	S,E,1/3	D	Screened 175-181 feet.
702	Fred Hoegenmyer	McKennon	1943	127	4	127	E	343	97.8 97.1	3- 3-74 2-27-75	P,E,3/4	D	
801	Paul Binder	H&H Water Well Drilling	1971	91	4	91	E	317	45.6	1-27-74	S,E,1/2	D	Open-hole completion.
802	Oak Grove School	Joe Fruka	1920	140	4	140	E	344	94.1 93.3	1-27-74 2-26-75	S,E,1/2	D	
803	Mrs. Pete Taylor	Markus Floeger	1966	121	4	121	C	341	55.1	3- 3-74	S,E,3/4	D	
901	Melvin Williams	L&N Drilling Co.	1971	225	4	225	E	315	102	8-10-72	S,E,1/2	D	Screened 213-219 feet.
902	W. O. Manning	--	--	243	2	243	E	304	129.2 131.7	3- 3-74 2-26-75	N	N	
903	Oliver Wegenhoft	L&N Drilling Co.	1963	210	4	210	E	304	20	1966	S,E,1/2	D	Casing slotted 204-210 feet.
20-101	Herman Balzer	do.	1967	140	4	140	C	238	58	4-25-67	W	S	Casing slotted 127-140 feet.
102	Linda Aurich	do.	1967	117	4	117	C-E	240	17.2 21.3	2-13-74 2-27-75	J,E,1/2	D	3/
103	W. Teischert	do.	1970	107	4	107	C-E	242	40	8- 5-70	S,E,1/2	D	Casing slotted 95-107 feet.
104	R. L. McCandless	Sheridan Drilling Co.	1972	139	4	139	E	241	59	3-31-72	S,E,1/2	D	Casing slotted 119-139 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-20-105	J. W. Bolton, Sr.	L&N Drilling Co.	1970	91	4	91	E	233	45	4-30-70	S,E,1/2	D	Screened 74-80 feet; drilled to 119 feet, but cased to 91 feet.
201	Wesley Kollman	do.	1970	123	4	123	C	202	123	8-7-70	S,E,1/2	D	Screened 106-115 feet.
202	Cities Service Oil Co.	--	1959	300	4	300	E	261	75.1	2-4-74	S,E,3/4	D	For minor commercial use at gasoline plant.
203	Ray Scholten	L&N Drilling Co.	1971	50	4	50	C	203	21	4-22-71	S,E,1/2	D	Screened 40-45 feet.
204	Harvey Lee	For Cities Service Oil Co.	--	350	4	350	E	224	53.7 43.0	2-13-74 2-27-75	A	Ind	
205	City of Columbus	City of Columbus	1913	38	144	38	C	202	26	4-8-37	N	N	Old dug well; destroyed. <u>3/</u>
206	Zwiegci #1	C. N. Moush	1953	10302	--	--	--	200	--	--	--	N	Oil test included in cross section. <u>4/</u>
302	Viney Alley	L&N Drilling Co.	1969	95	4	95	C	242	57	10-14-69	J,E,1/2	D	Casing slotted 85-95 feet.
303	Boyd, Durst & Kuenstler	Johnson Drilling Co.	1974	240	4	240	E	191	39.9	1-28-74	A	Ind	Casing reportedly slotted about 230-240 feet. <u>3/</u>
401	Southern Pacific	--	1930	250	8	250	E	235	65.8 75.8	10-31-74 2-27-75	S,2	D	
402	John Taylor	C. Koopman	1943	265	4	265	E	237	47 27	1969 1943	S,E,3/4	D	
403	Daniel Kuhn	Johnnie Maresh Drilling	1970	220	4	220	E	302	115	--	S,E,1	D	Open-hole completion.
404	Mrs. Joe J. Hanak	Drilled for Oil Co.	1950	220	4	220	E	255	--	--	W	S	<u>3/</u>
405	M. K. Allen	Arkee Drilling Co.	1953	284	8	284	E	298	90	1953	T,G,40	Irr	Reportedly slotted against all sands from about 150 feet; reportedly yields about 600 gal/min, 1953.
406	do.	Markus Floeger	1959	220	3	220	E	351	214	1959	F,E,1	D	Casing slotted about 214-220 feet.
407	State of Texas, Glidden IR 10W	K&S Drilling Co.	1967	430	4	430	E	321	163.2	2-14-74	S,E, 7 1/2	F	Screened 405-430 feet. <u>3/</u>
408	State of Texas, Glidden IR 10E	do.	1967	433	4	433	E	315	160	9-22-67	S,E, 7 1/2	F	Screened 408-433 feet; test hole drilled to 522 feet.
409	Southern Pacific	--	--	823	9	823	J	248	60	1935	N	N	Screened 800-823 feet. <u>3/</u>
501	City of Columbus well 6	Henry Cleveland	1951	300	24 16	263 300	E	202	29.8	10-15-59	N	N	Well destroyed; water reportedly salty, possibly screened about 260-300 feet.
502	A. J. Wray	Layne-Texas Co.	1954	300	12	300	E	221	49.3 57.6	12-18-59 11-13-73	T,E,30	Irr	Test hole drilled to 794 feet. <u>1/3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-20-503	A. J. Wray	Layne-Texas Co.	1954	300	12	300	E	219	52.3 63.4 64.2	12-18-59 11-13-73 3- 4-75	T,E,30	Irr	<u>3/</u>
504	City of Columbus, Tait test hole	Texas Water Wells	1961	1304	--	--	--	197	--	--	N	N	Test hole. <u>4/</u>
505	City of Columbus	Layne-Texas Co.	1972	305	18 12	152 305	E	222	61.1 61.5	10-31-73 3- 7-75	T,E,60	F	Screened 162-222 and 253-258 feet; test hole drilled to 450 feet. <u>3/</u>
506	A. J. Wray	L&N Drilling Co.	1970	336	4	336	E	220	69.8	11-13-73	J,E,1/2	D	Screened 312-318 feet.
507	City of Columbus, Tait well	Texas Water Wells	1961	319	18 12 3/4	142 319	E	197	45 62.8 63.0	1-31-61 10-31-73 3- 7-75	T,E,50	F	Screened 151-189, 199-224, 251-297, and 306-318 feet. Reported pumping level 188 feet after 12 hours at about 170 gal/min 1-30-61; test hole drilled to 1305 feet.
601	City of Columbus well #5	Henry Cleveland	1951	360	24	360	E	204	52.7 48.1	10-15-59 3- 7-75	T,E,50	F	Reported pumping level 170 feet 10-15-59. <u>2/</u>
602	City of Columbus well #2A	Layne-Texas Co.	1968	312	18 12	185 312	E	199	75 83.5	2-21-68 10-31-73	T,E,50	F	Screened 195-234 and 255-295 feet. Pumping level 194.8 feet after 15 minutes at an estimated rate of 300 gal/min 10-31-73; reported pumping level 222 feet after 4 hours at 510 gal/min. <u>3/</u>
603	Edgar Hornadt	L&N Drilling Co.	1966	141	4	141	C	196	60	6-15-66	S,E,1	D	Screened 132-138 feet.
604	Horton & Horton	do.	1969	164	4	164	C	180	33 27.2	4-14-69 2-28-75	S,E,1/2	D	Casing slotted 143-164 feet.
605	Dan Prause	--	--	60	40	60	C	208	37.6	1-26-74	W	N	Old dug well, concrete curb.
606	Robert Schobel	--	--	43	6	43	C	182	33.4 22.9	3- 5-74 2-28-75	W	S	
701	Glasscock Ranch	L&N Drilling Co.	1959	260	7	260	E	252	106.8 106.8	2-14-74 3- 3-75	S,E,1	D	
702	J. L. Drymalla	do.	1967	187	4	187	C	283	89	3-21-67	S,E	D	Screened 171-177 feet.
703	Schneider Bros.	do.	1966	172	4	172	C	250	82	9-30-66	J,E,1/2	S	Casing slotted 152-172 feet.
801	B. D. Fussel	Layne-Texas Co.	1951	800	20 12 10	253 550 800	E-B	246	85.5 98.4	3-20-56 3- 4-74	N	N	Casing slotted 211-251, 253-411, 446-476, 521-541, 575-585, 655-660, and 700-800 feet. Former irrigation well; test hole drilled to 1005 feet. <u>2/</u>
802	E. M. Conner	Katy Drilling Co.	1954	396	14	396	E-C	244	80.6 102.0	3-20-56 3- 5-74	T,E,75	Irr	Casing slotted 90-396 feet. <u>1/2/</u>
803	Glasscock Ranch	--	--	168	4	168	E	250	100.6	2-14-74	W	S	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-20-804	Alvin Pavlicek	Katy Drilling Co.	1966	754	20 12	392 754	E-B	247	111.9	3- 5-74	T,E,150	Irr	Casing slotted 283-754 feet. <u>3/</u>
901	do.	Layne-Texas Co.	1951	769	20	769	E-B	242	113.3	3- 7-75	T,E,125	Irr,N	Abandoned, 1974. <u>2/3/</u>
902	R. J. Kleinman	do.	1954	767	14	767	E-B	221	135.2 69.8	8-10-55 3-20-56	T,E,150	Irr	Casing slotted against all sands between 293-723 feet; measured discharge 726 gal/min 5-22-74. <u>1/3/</u>
903	R. M. Conner	Katy Drilling Co.	1954	903	20 12	317 903	E-B-C	243	85.5 95.9	3-20-56 2-25-63	T,E,150	Irr	Casing slotted 115-903 feet; pumping level about 195 feet at about 400 gal/min 7-15-55. <u>2/3/</u>
904	J. P. Gideon	American Water Co.	1945	935	18	935	E-B	240	--	--	T,E,150	Irr	Measured discharge 1053 gal/min 5-22-74. <u>3/</u>
905	--	--	--	106	4	106	C	228	75.2 97.6	3-12-74 3- 4-75	W	S	
906	Marvin Lange	L&N Drilling Co.	--	367	4	367	E	202	75.5 93.7 66.8	3- 6-74 6- 6-74 2-28-75	S,E,1	D	
907	do.	do.	1970	430	4	430	E	215	88.6	3- 5-74	S,E,1	D	Screened 344-354 feet.
908	do.	do.	--	--	--	--	--	210	--	--	P,H	S	
909	Alvin Pavlicek	Katy Drilling Co.	1974	684	20 12	396 684	E	242	218	7- -74	T	Irr	Reported pumping level 359 feet after 6 hours at 1350 gal/min.
21-101	J. P. Leyendecker	Arkce Drilling Co.	1956	150	4	150	C	242	45	3- -73	J,E,1/2	D	Casing slotted about 140-150 feet.
201	Oscar Glass	L&N Drilling Co.	1956	304	8	304	C	300	82.0 76.7	3- 5-65 3- 7-75	T,G,30	R	Casing slotted 94-144 feet and 247-304 feet. <u>1/2/</u>
202	Georgia Schindler	do.	1968	199	4	199	C	259	85	9-18-68	S,E,1/3	D	Screened 186-192 feet.
301	Julian Salguero	Pomykal Drilling Co.	1970	800	12	800	E	240	66.6 67.3	1- 2-74 3- 3-75	T,G,80	R	Casing slotted 400-800 feet. <u>3/</u>
302	do.	L&N Drilling Co.	1973	163	4	163	C	253	61 57.8	4-12-73 3- 3-75	S,E,1/2	S	Screened 148-154 feet.
303	Clement Henneke	Wendt Well Service	1973	72	4	72	C	257	52	4- -73	S,E,1/2	D	
401	R. F. Potter	Texas Construction Materials.	1954	600	8	600	E	185	22.0 29.0	12-17-73 2-28-75	N	N	Originally drilled at Helms Plant, Texas Construction Materials.
402	Clarence Williams	--	1960	60	4	60	C	192	18.0 15.8	1- 6-74 2-28-75	J,E,1/3	D	<u>3/</u>
403	Parker Bros Zweigal Estate	L&N Drilling Co.	1972	76	4	76	C	175	28.0	6-28-72	S,E,1/2	D	Casing slotted 64-76 feet.

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-21-501	Blue Ribbon Feeders	L&N Drilling Co.	1966	158	4	158	C	252	84.4	1- 6-74	S,E,1/2	S	Casing slotted 138-158 feet.
601	Henry Sunderman	Katy Drilling Co.	1953	915	20 12	304 915	E-C	256	84.5	2-20-74	T,E,125	Irr	Casing slotted 200-915 feet; measured discharge 2000 gal/min 7-21-55. <u>2/3/</u>
602	G. E. Thomas, Jr.	American Water Co.	1946	504	18	504	E-C	250	84.8	3- 6-75	T,E,150	Irr	Measured discharge 1760 gal/min 7-15-60. <u>1/2/</u>
603	Jimmy Adkins	do.	1946	812	20	812	E-C	236	67.4 71.9	4- 1-58 3- 6-75	T,E,150	Irr	Originally drilled for B. D. Fussel; measured discharge 2060 gal/min 7-15-60. <u>1/2/3/</u>
604	James Thomas	Katy Drilling Co.	1967	481	20 12	351 481	E-C	235	92.9 71.3	4-13-71 3- 5-74	T,E,125	Irr	Casing slotted 174-481 feet; measured discharge 1823 gal/min 5-22-74. Pumping level 178 feet after 1 hour at 3443 gal/min 1-12-67. <u>2/3/</u>
701	Alfred Girndt	L&N Drilling Co.	1960	85	4	85	C	215	55.5	12-17-73	S,E,1/2	D	Casing slotted 79-85 feet.
702	W. Simmons	do.	1954	124	4	124	C	201	62	12-13-54	S,E	D	Casing slotted 104-124 feet; old well worked over 78-128 feet.
703	C. D. Rutta	do.	1961	140	4	140	C	199	66	11-24-61	S,E,1/2	S	Casing slotted 127-140 feet.
801	Thorstenberg Materials Co.; Jay Ray Plant	--	1965	55	4	55	C	172	36.1 19.3	5-22-74 2-28-75	J,E,3/4	D	<u>3/</u>
901	Superior Oil Co., Ramsey Plant	Layne-Texas Co.	1950	294	14	294	C	238	95	8-12-50	T,E,25	Ind	Screened 247-283 feet. <u>1/</u>
902	B. D. Fussel	American Water Co.	1946	800	20	800	E-C	218	62.3	3- 6-75	T,E,150	Irr	Measured discharge 2160 gal/min 5-22-74. <u>2/ 3/</u>
903	G. Goenkler	do.	1949	504	14	504	C-E	220	59.8	do.	N	N	<u>1/2/</u>
904	Dr. McCandless	Katy Drilling Co.	1967	400	--	400	C-E	222	--	--	T,E,75	Irr	Originally drilled for Ralph Thomas.
905	B. D. Fussel	do.	1968	896	20 12	393 896	E-C	215	95	3-22-68	T,E,150	Irr	Casing slotted 200-693 feet; reported pumping level at 2873 gal/min 3-22-68.
22-101	Scott Witter	do.	1968	870	20 12	387 870	E-C	247	98 68.4	2-11-68 3- 3-75	T,E,250	Irr	Casing slotted 243-870 feet; reported pumping level 235 feet after 2 hours at 3832 gal/min 2-2-68.
102	Elo Kotrla	--	1960	96	4	96	C	232	39.4	2-15-74	J,E	D	
103	T. J. Bryant	Katy Drilling Co.	1971	527	12 10	289 527	C-E	241	98	5-25-71	T,E,	Irr	Row crop well; virtually unused.
201	G. E. Thomas	do.	1953	995	20 12	300 995	E	227	39.3 43.8	3-21-56 3- 6-75	T,E,125	Irr	<u>3/</u>
202	Pecan Shop of Bellville	L&N Drilling Co.	1966	139	4	139	C	236	36	2- 8-66	S,E,3/4	D	Screened 127-133 feet.
401	Henry Sunderman	American Water Co.	1946	812	22 12	300 812	E-C	231	58.8	3- 6-75	T,E,60	Irr	Originally drilled for Dennison. <u>2/3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-22-402	J. H. Dixon	American Water Co.	1946	502	18 12	160 502	C-E	226	51.6 57.8	3-21-56 3- 6-75	T,G	Irr	
403	D. Winterman	Katy Drilling Co.	1968	1005	12 20	745 1005	E-B	212	46.9 45.7	2-20-74 3- 6-75	T,G,150	Irr	Casing slotted 565-1005 feet; reported pumping level 117 feet after 3 hours at 3736 gal/min 3-1-68.
404	Henry Sunderman	do.	1973	695	20 12	396 695	E-C	226	59.8 53.7	11-30-73 3- 6-75	T,E,150	Irr	Casing slotted 196-695 feet; reported pumping level 308 feet after 4 hours at 3280 gal/min 3-73.
405	do.	do.	1966	830	20 12	411 830	E-C	229	--	--	T,G,200	Irr	Casing slotted 167-830 feet; reported pumping level 270 feet after 2 hours at 3046 gal/min 11-21-66; reported 5-minute static level 94 feet 11-22-66. <u>3/</u>
22-406	Attwater Prairie Chicken Farm	--	--	48	4	48	C	204	16.2 15.6	4-29-74 3- 3-75	W	S	
501	Howard Weise	Katy Drilling Co.	1966	645	20 12	318 645	E-C	203	67 32.8	10-28-66 3- 3-75	T,E,125	Irr	Casing slotted 217-645 feet; reported pumping level 149 feet after 4 hours at 2030 gal/min 10-28-66.
502	Nolan Renz	--	1965	200	--	200	C	202	--	--	T,G,15	Irr	
503	Everett Estate	L&N Drilling Co.	1970	147	4	147	C	211	65	7-13-70	S,E,1/2	S	Casing slotted 138-147 feet.
504	Lakeside Irrigation	Katy Drilling Co.	1968	931	20	931	E-C	197	43.6	3- 3-75	T,E,150	Irr	Measured discharge 1297 gal/min 5-22-74. <u>3/</u>
603	Attwater Prairie Chicken Farm	--	--	35	4	35	C	185	14.6 15.0	2-20-74 3- 3-75	W	S	
701	David Wintermann	Katy Drilling Co.	1967	947	20 12	399 947	E-C	202	57.0 56.6	2-20-74 3- 6-75	T,E,150	Irr	Casing slotted 206-947 feet; reported pumping level 180 feet after 7 hours at 3443 gal/min 12-14-67. <u>3/</u>
702	do.	--	--	60	6	60	C	195	26.7	2-20-74	W	N	Windmill broken at time of inventory.
703	Harvey Birdwell	Ellis Water Well Drilling	1974	167	4	167	C	201	45.9	4-27-74	S,E,1	S-D	
801	David Wintermann	--	1948	47	4	47	C	184	15.4 15.0	2-20-74 3- 3-75	W	S	
802	do.	--	--	14	4	14	C	180	8.9	2-20-74	N	N	Well covered with dirt.
901	Sam Maraslia	Crowell Drilling Co.	1966	294	14	294	C	163	--	--	T,G,90	Irr	Casing slotted 150-294 feet.
23-701	Tellaro Bros.	Layne-Texas Co.	1950	420	16 12	152 420	C	159	20.1 20.6	3-21-56 3- 6-75	T,G,100	Irr	Casing slotted 100-120, 140-150, 152-275, 305-320, 350-380, and 390-418 feet. Measured pumping level 112 feet after 2 hours at 1845-1940 gal/min, 10-minute static level 30 feet 9-11-55. <u>2/4/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-26-201	C. A. Walker	--	--	60	48	60	E	288	31.3	1-29-74	J,E,1/3	D	Very old dug well.
202	Joseph Walker	Leroy Richter Water Well Drilling	1970	126	4	126	E	262	47.8 48.8	do. 2-26-75	S,E,1/2	D	Casing slotted 105-126 feet. <u>3/</u>
203	do.	--	1873	47	36	47	E	268	31.8	1-29-74	N	N	Dug well.
204	do.	--	1870 <sup>±</sup>	41	36	41	E	288	39.4	do.	W	S	do.
205	H. E. Strunk	Markus Ploeger	1968	220	4	220	E	311	109	9- -68	S,E,1/2	D	Open-hole completion.
301	Frank J. Krocky	do.	1972	213	6	213	E	382	175	4- 5-72	S,E,1/2	D	do.
302	Lester Bunge	L&N Drilling Co.	1969	106	4	106	E	336	65	10-11-69	W	S	Casing slotted 91-106 feet.
27-101	Walter Rutledge	Joe Frnka	1955	83	3	83	E	322	53	8- -72	S,E,1/2	D	Open-hole completion.
102	Clarence Grodhaus	--	1915	160	6	160	E	321	100	10- -71	S,E,1/2	D	
201	Adolph Thumann	L&N Drilling Co.	1961	355	4	355	E	311	255	1961	S,E,3/4	D	
301	Dr. A. H. Copeland	do.	1969	196	4	196	C	303	100	10- -69	S,E,1/3	D	Screened 181-187 feet.
302	Miller Estate	--	--	275	4	275	E	292	82.2	2-14-74	S,E,1	D	
401	F. Fokorny	--	--	148	4	148	E	302	71.4 73.8	1-30-74 2-26-75	W	D	Supplies deer hunting camp.
402	Zoller & Daneburg	Zoller & Daneburg	1973	350	8,4	350	E	283	118.8 114.0	1-30-74 2-26-75	A	Ind	Originally furnished water used while drilling oil test.
403	Fred Froehler	--	1918	137	4	137	E	327	77.8 77.0	1-30-74 2-26-75	N	N	
601	Albert Bitner	L&N Drilling Co.	1965	158	4	158	C	269	103	11- -65	--	S	Casing slotted 145-158 feet.
704	J. F. Leggett	Sheridan Drilling Co.	1971	146	4	146	C	281	88 92.8	5-12-71 2-21-74	S,E,1	D	Casing slotted 125-146 feet. <u>3/</u>
801	Vernon Haines	Leroy Richter Water Well Drilling	1973	388	4	388	C	258	83.4	do.	S,E, 7 1/2	S	Casing slotted 207-233 and 329-388 feet.
802	J. F. Leggett	Sheridan Drilling Co.	1972	115	4	115	C	258	70.7 71.2	do. 2-26-75	F,E,1/2	S	
803	Marvin Tesch	Tidewater Oil Co.	1945	500	4	500	E	242	106.7	do.	W	S	Originally furnished water used while drilling oil test.
804	E. H. Moore	L&N Drilling Co.	1972	233	4	233	C	282	139	11- 7-72	S,E,3/4	S	Casing slotted 213-333 feet.
901	J. A. Davis	B&W Drilling Co.	1971	340	4	340	E	262	84	2- -71	S,E,3/4	D	Supplies water to about seven "weekend" houses.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-27-902	Jack Macey	Sheridan Drilling Co.	1971	434	4	434	E	269	113	3-14-71	S,E,3/4	S	
903	T. R. Hancock	do.	1965	189	4	189	C	246	78.8	3-13-74	S,E,3/4	S	
28-101	Hastadt Fee	--	--	184	4	184	C	281	167.4	do.	N	N	Originally furnished water used while drilling oil test.
102	E. G. Miller Estate	Prairie Drilling Co.	1973	136	4	136	C	268	114.6 115.0	2-14-74 3- 4-75	A	N	do.
103	Glascock #4	Tennessee Prod. Co.	1953	5499	--	--	--	293	--	--	--	N	Oil test included in cross section. <u>4/</u>
203	W. H. Mcikow	American Water Co.	--	750	12	750	E	243	--	--	T,E,125	Irr	
301	Tolbert & Zweigel	Henry Cleveland	1949	913	20,12	913	E	236	--	--	T,E,125	Irr	
302	Ed Johnson	Layne-Texas Co.	1949 <sup>1</sup>	900	24	900	E-C	224	59.1 67.4	3-12-74 3- 4-75	N	N	
303	Thorstenberg Materials Co.	do.	1965	856	14 10	311 856	E	221	174.8	11-15-74	T,E,150	Ind	Screened 276-311, 356-411, 431-496, 526-551, 596-611, 616-626, 636-651, 686-726, 726-746, 781-796, and 836-854 feet.
304	do.	Katy Drilling Co.	1969	754	20 12	397 754	E	221	237	9-11-69	T,E,150	Ind	Screened 469-754 feet; pumping level 345 feet after 2 hours at 1250 gal/min. <u>3/</u>
305	E. M. Conner	L&N Drilling Co.	1967	172	4	172	C	221	85	3-25-67	S	S,D	Screened 156-162 feet.
401	Howard Weise	do.	1958	260	7	260	C	285	--	--	T,E,10	Irr	Row crop well.
402	Johnnie Schmidt	Layne-Texas Co.	1951	621	18	621	C-E	272	116.5 128.2	12-31-59 3- 4-74	T,G,110	Irr	Screened 150-200, 228-248, 266-296, 330-360, 368-400, 462-542, and 580-605 feet. <u>2/ 3/</u>
403	T. L. Sparks	L&N Drilling Co.	1969	244	4	244	C	279	174	8-13-69	S,E,1	O	Casing slotted 231-244 feet.
501	R. E. Smith well 5	Katy Drilling Co.	1952	640	20,12	640	E-C	261	105.8 120.7	2-25-63 3- 5-75	N	N	<u>2/4/</u>
502	R. E. Smith well 4	Layne-Texas Co.	1948	609	20 18 12	224 322 609	E-C	251	171 130.1	9- 2-48 3- 5-75	T,E,125	Irr	Casing slotted 224-254, 340-399, and 440-607 feet. <u>2/</u>
503	Frank Higgins well 3	Katy Drilling Co.	1952	631	12	631	E-C	231	160.0	11-16-73	T,E,125	Irr	Casing slotted 240-631 feet; measured discharge 875 gal/min 5-22-74. <u>3/</u>
504	R. L. Cook	--	--	--	20	--	--	234	88.1	3-14-60	N	N	Originally drilled for Thomas & Cook. <u>2/</u>
505	Frank Higgins	American Water Co.	--	750	--	750	E-C	234	153.6 127.4	11-16-73 3- 5-75	T,E,100	Irr	Originally drilled for Thomas & Cook.
506	R. E. Smith	--	--	600	12	600	E-C	257	140.1 121.6	11-14-73 3- 5-75	N	N	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-28-507	Powers Bros.	--	1950	80	4	80	C	236	56.0 55.4	3- 5-74 3- 5-75	W	S	
508	do.	Katy Drilling Co.	1968	769	14	769	E-C	242	124.8 123.7	3- 5-74 3- 5-75	T,E,125	Irr	Casing screened 229-769 feet; test hole drilled to 917 feet. Pumping level 221 feet after 2 hours at 1205 gal/min 5-28-68. <u>3/</u>
509	M&G Ranch	Sheridan Drilling Co.	1976	220	44	220	C	237	91.3 91.7	3-13-74 3- 4-75	S,E,1/2	S,D	
602	R. E. Smith well 7	Katy Drilling Co.	1954	975	20	975	E-C	215	134.7	11-14-73	T,E,250	Irr	Casing screened 170-975 feet; test hole drilled to 1148 feet. Measured discharge 1596 gal/min 5-24-74. <u>3/</u>
603	R. E. Smith	--	1950	300	8	300	C	217	124.9 94.8	do. 3- 5-75	W	S	Old irrigation well.
604	Rice Consolidated School District	Lowry Water Wells	1969	271	4	271	C	209	100	6- 6-69	S,E,5	P	Casing screened 256-271 feet. <u>3/</u>
605	Forest Oaks	Pomykal Drilling Co.	1973	250	12	250	C	190	74.1 75.2	3-12-74 3- 4-75	S,E, 7 1/2	P	Casing screened 150-250 feet; pump not installed at time of inventory.
606	R. E. Smith	Leonard Mickelson	1943	526	18	526	C-E	211	--	--	N	U	Casing slotted 50-526 feet.
701	G. R. Burke	Katy Drilling Co.	1953	848	20	848	E-C	254	128.5	11- 7-73	T,E,200	Irr	Screened 120-848 feet. <u>1/2/</u>
702	do.	American Water Co.	1940	565	18	565	C-E	249	102.5	3- 7-75	T,G,200	Irr	<u>2/</u>
703	do.	Katy Drilling Co.	1973	978	20	978	E-C	256	166.0 141.6 146.4	11-13-73 3-14-74 3- 4-75	T,G,200	Irr	Pump not connected at time of inventory.
801	Clipsen Bros.	--	1949	450	18	450	C-E	242	86.9 85.4	11-14-73 3- 5-75	N	N	
802	do.	American Water Co.	1946	569	18	569	C-E	241	85.7 99.4	3-20-56 3- 5-75	T,G,76	Irr	<u>1/2/</u>
803	A. J. Krusek, Sr.	Henry Lane	1949	800	18	800	E-C	231	97.3	1-16-74	T,G,125	Irr	Casing slotted 90-800 feet.
804	Rock Island Water Supply Corporation	J. O. Siegert	1966	650	8	650	E	246	189.6	11-16-74	S,E, 7 1/2	P	
805	John Clipsen	Leonard Mickelson	1969	760	16	760	E-C	244	--	--	T,G,100	Irr	Casing slotted 290-384, 408-422, 428-448, 456-496, 500-530, 566-578, 588-620, 632-696, and 730-735 feet. <u>3/</u>
806	Clipsen Bros.	Katy Drilling Co.	1960	850	--	850	E-C	242	154.6	11-14-73	T,E,125	Irr	Well reportedly starts pumping at about 1600 gal/min; then drops to about 1200 gal/min.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-28-901	Richard Clipson	American Water Co.	1945	601	18	601	C-E	215	82.4 101.2	3-19-57 2- 9-58	T,E,125	Irr	Casing slotted 105-601½ feet; measured pumping level 179.2 feet at 1200 gal/min 7-15-55. <u>2/3/</u>
902	Clipson Bros. well 5	--	--	850	20	850	E-C	208	68.7 88.4	3-20-56 3- 4-75	T,E,125	Irr	<u>2/3/</u>
903	R. E. Smith	A. H. Justman	1951	695	24 12	240 695	E-C	211	--	--	--	--	<u>1/</u>
904	R. E. Smith well 8	Katy Drilling Co.	1964	982	20 12	432 982	E-C	219	89.5 99.4	4-29-74 3- 5-75	T,E,125	Irr	Casing slotted 266-982 feet; measured discharge 1065 gal/min 5-24-74. <u>3/</u>
905	R. E. Smith well 6	do.	1953	654	24 12	317 654	E-C	216	132.1	11-14-73	T,E,150	Irr	Casing slotted 172-654 feet; measured discharge 855 gal/min 5-24-74. <u>1/3/</u>
906	R. E. Smith well 9	do.	1966	1008	20 12	463 1008	E-C	214	192	9-26-66	T,E,250	Irr	Casing slotted 267-463 and 463-1008 feet; reported pumping level 312 feet after pumping 4 hours at 2461 gal/min 9-22-66.
907	R. E. Smith well 10	do.	--	1000	--	--	E-C	212	166.2 113.2	11-14-73 3-15-75	T,E,150	Irr	Measured discharge 1005 gal/min 5-24-74. <u>3/</u>
908	R. E. Smith well 1	Henry Cleveland	1947	1844	18 12	1844	J	209	80.9 78.3 81.2	11-24-59 11-14-73 3- 6-75	N	N	Well abandoned, formerly #1 Lunquist. <u>4/</u>
909	R. Clipson	--	--	--	18	--	--	212	60.2 61.3	11-14-73 5-24-74	J	S	Formerly used for irrigation.
29-101	Clipson-Johnson	Katy Drilling Co.	1952	611	20 10	299 611	E	224	99.0 102.8	3- 5-65 3- 6-75	T,E,75	Irr	Casing slotted 203-611 feet. <u>2/3/</u>
102	Don McAlister	do.	1949	972	24 12	236 972	E	217	124.0	11-15-73	T,E,125	Irr	
103	Tait Ranch	L&N Drilling Co.	1940	50	6	50	C	217	31.4 29.9	3-12-74 2-28-75	S,E,1/2	S	
104	do.	Layne-Texas Co.	1964	934	16 12	363 934	E	222	104.6 107.3	3-12-74 2-28-75	N	N	Casing slotted 282-322, 352-362, 364-403 446-468, 509-544, 581-617, 750-835, 855-875, and 895-916 feet.
105	do.	L&N Drilling Co.	1940	118	4	118	C	204	76.2	3-12-74	W	S	
106	James Cranek	Katy Drilling Co.	1961	675	20 12	675	E-C	223	75	11- -61	T,G,100	Irr	Measured discharge 822 gal/min 5-24-74. <u>3/</u>
107	Tait Ranch	--	--	95	4	95	C	223	39.7 57.2	3-12-74 2-28-75	W	S	
201	Pecan Valley Farms	L&N Drilling Co.	1973	98	4	98	C	182	38.0 37.3	2-22-74 2-28-75	S,E,1/2	D	
202	do.	--	--	85	4	85	C	179	33.3 31.5	2-22-74 2-28-75	W	S	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-29-203	Herbert Hoffman	L&N Drilling Co.	1966	141	4	140	C	182	36	7-16-66	J,E,1/2	D	Screened 119-140 feet.
301	Mrs. Herbert Aull	--	--	72	4	72	C	200	41.7 41.0	11-16-73 2-28-75	J,E,1/2	S	
302	Silver Creek Fish Hatchery	Katy Drilling Co.	1968	399	14	399	C-E	177	49.2 43.7	11-30-73 3-6-75	T,E,50	S	Casing slotted 153-399 feet; pumping level 77 feet after 2 hours at 1865 gal/min 3-11-68; reported water level 37 feet 3-11-68. <u>3/</u>
303	Superior Sand & Gravel Co.	do.	1966	428	12	428	C-E	177	--	--	N	N	Casing slotted 157-428 feet.
401	Parker Bros.	L&N Drilling Co.	1954	382	--	382	C-E	215	79.2 109.1	3-5-65 3-6-75	T,E,50	Irr	Casing slotted 151-170, 175-197, 218-240, 249-264, and 282-382 feet; reported pumping level 190 feet at 610 gal/min, 1954. <u>2/</u>
402	Don McAlister	Katy Drilling Co.	1969	632	--	632	C-E	207	--	--	T,E,125	Irr	Well drilled for Don McAlister on Parker Bros. land. <u>3/</u>
403	do.	L&N Drilling Co.	1966	117	4	117	C	207	54	7-2-66	S,E,1/2	S	Casing slotted 105-117 feet.
501	Trula Wells Estate	--	--	--	--	--	--	181	48.9 54.6	3-10-65 3-6-75	T,E	Irr	Originally drilled for Fajkus; measured discharge 1271 gal/min 5-24-74. <u>2/3/</u>
502	Gerald Clipson	Katy Drilling Co.	1968	980	20,12	980	E-B-C	182	168 200	1968 1973	T,E,150	Irr	Casing slotted 286-980 feet; reportedly pumps 2200 gal/min, 1974.
503	Altair Dryer	L&N Drilling Co.	1960	120	4	120	C	207	46.8	1-6-74	S,E,1	D	Casing screened 112-120 feet.
504	Frank Tolivar	do.	1967	118	4	118	C	175	31	6-16-67	S,E,1/2	D	Casing slotted 108-118 feet.
505	Elmo Werla	do.	1966	142	4	142	C	176	--	--	S,E,1/2	D	Casing slotted 130-142 feet.
506	Arthur Binkley	Sheridan Drilling Co.	1970	135	4	135	C	182	31	12-13-70	S,E,1/2	D	Screened 118-135 feet.
601	Lakeside Irrigation Co.	L&N Drilling Co.	1968	63	4	63	C	173	25.0 25.2	11-30-73 2-28-75	S,E,1/2	D	Screened 57-63 feet.
602	Leroy Briggs	L. Brown	1954	100	4	100	C	166	22.6	2-20-74	T,G,25	N	Unused for several years.
603	Superior Sand & Gravel	Sheridan Drilling Co.	1972	122	14	122	C	158	17.2 16.2	2-22-74 2-28-75	S,E,1	D	Casing slotted 112-122 feet.
702	R. E. Smith well 2	Otto Mickelson	1943	445	18 10	445	C-E	211	76.9	11-24-59	T,E,100	Irr	Casing slotted 97-117, 160-227, 241-247, 266-286, 301-316, and 398-445 feet.
703	W. A. Struss well 1	Brazos Oil & Gas Co.	1952	10989	--	--	--	187	--	--	--	N	Oil test, electric log, used in cross section. <u>4/</u>
801	Church of God	L&N Drilling Co.	1969	70	4	70	C	172	39	4-16-69	J,E,1/2	D	Casing slotted 58-70 feet.
803	Arlan Miller	Katy Drilling Co.	1974	550	--	550	C	172	57.6	3-6-75	T,E,150	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-29-901	Labay Bros.	Layne-Texas Co.	1951	185	16	185	C	168	33	1951	T,E,50	Irr	Casing slotted 48-138 and 153-185 feet; pumping level 75 feet at 1350 gal/min, 1951.
902	--	--	--	45	4	45	C	154	15.60	2-20-74	W	S	
903	C. H. Matthews well 1	Hill & Hill	1957	9649	--	--	--	149	--	--	--	N	Oil test, electric log, used in cross section. 4/
30-101	City of Eagle Lake well 4	Big State Water Wells	1950	527	16 10	350 527	E-C	171	36.0 45.5	5- -50 3-16-72	T,E	P	Screened 360-385, 405-420, 440-460, 470-485, and 490-525 feet. 3/
102	City of Eagle Lake well 5	do.	1950	514	16 10	350 514	E-C	167	57.1	11-27-73	T,E,25	P	Screened 351-362, 365-407, 441-481, and 489-511. 1/2/3/
103	Ralph Thomas	Katy Drilling Co.	1955	490	14 12	201 490	C-E	188	48.0 52.5	3-10-65 3- 6-75	T,E,60	D	Casing slotted 190-490 feet; pumped 1910 gal/min 9-26-55. 1/2/3/
104	do.	--	--	400	--	400	C	186	32.1	do.	N	N	2/
201	Payne Bros.	L&N Drilling Co.	1957	158	7 6	93 158	C	187	43.0 35.2 35.4	7- -57 8-30-74 3- 3-75	T,E,125	Irr	Screened 140-158 feet. 1/2/
202	City of Eagle Lake well 2	Layne-Texas Co.	1927	462	8	462	C	172	27.0 54.8 43.9	2-21-44 11-27-73 3- 3-75	N	N	Screened 270-294 and 376-460 feet; originally drilled for Central Power & Light Co. 3/
203	Lakeside Irrigation Co.	Katy Drilling Co.	1968	806	20 12	364 806	E-C	183	61.1 51.3	11-30-73 3- 3-75	T,E,150	Irr	Casing slotted 340-806 feet; pumping level 150 feet at 2808 gal/min and 209 feet at 4544 gal/min 3-5-68. 3/
204	Harbert Estate	--	--	64	--	64	C	186	60.6	11-30-73	N	N	Casing badly rusted; well may have caved.
205	--	--	--	34	4	34	C	171	23.6 23.0	6-27-74 3- 3-75	W	S,N	
206	City of Eagle Lake well 3	--	--	462	10 8	462	C	172	23	2-21-44	N	N	3/
207	Thomas #A-1	Union Producing Co.	1962	11826	--	--	--	188	--	--	--	N	Oil test included in cross section. 3/
301	--	--	--	116	3	116	C	171	46.1 30.5	6-27-74 3- 3-75	W	S	
401	Wharton Turf Grass	L&N Drilling Co.	1957	166	12	166	C	172	22.8	3- 5-74	T,G,75	Irr	Casing slotted 41-66 and 106-166 feet. 1/2/
402	do.	do.	1955	79	6	79	C	176	21.9	11-28-73	T,G, 7 1/2	Irr	Casing slotted 48-79 feet.
403	Lakeside Irrigation	do.	1966	249	4	249	C	167	19	9-22-66	S,E,1/2	D	Screened 231-243 feet.

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-30-404	C. E. Everitt, Jr.	Katy Drilling Co.	1968	200	8	200	C	156	21	1968	T,G,200	Irr	Casing slotted 147-200 feet.
405	W. Kucherka	Walter Etheridge	--	100	8	100	C	177	--	--	T,G,80	Irr	Well unused.
406	Horton & Horton	L&N Drilling Co.	1969	73	4	73	C	159	17	4-14-69	S,E,1/2	D	Casing slotted 63-73 feet.
407	W. Hodde, Jr.	do.	1969	48	4	48	C	161	14	12-26-69	S,E,1/2	D	Casing slotted 40-48 feet.
501	W. J. Bronner	--	--	35	8	35	C	174	24.9 24.9	12-18-73 3- 3-75	W	S	
502	do.	L&N Drilling Co.	1973	110	4	110	C	172	30.4 31.0 21.5	12-18-73 5-24-74 3- 3-75	--	S	Pump not installed at time of inventory.
503	E. Anderson	Katy Drilling Co.	1968	282	14	282	C	175	52	4-25-68	N	N	Casing slotted 150-282 feet; pumping level 146 feet at 900 gal/min 4-25-68.
504	F&B Co.	Texas Water Wells	1968	834	20 12	444 569	C-E	175	59.4	3- 3-75	T,250	Irr	Casing slotted 128-170, 176-198, 204-242, 252-272, 350-374, 426-444, 488-502, and 548-569 feet.
505	J. Thomas	--	--	89	4	89	C	168	36.0 15.6	6-27-74 3- 3-75	W	S	
601	Rice Industries	L&N Drilling Co.	1966	131	4	131	C	164	33	4- 4-66	S,E,1	S	Casing slotted 120-131 feet.
701	Scott Witter	Katy Drilling Co.	1967	427	12	427	C	173	34.4 35.2	11-27-73 3- 3-75	T,E,57	Irr	Casing slotted 151-427 feet; reported pumping level 82 feet at 1001 gal/min, 97 feet at 1251 gal/min, and 114 feet at 1596 gal/min. <u>3/</u>
702	Joc McCreary	--	--	--	12	--	--	159	--	--	T	Irr	
703	Arthur Mahalitic	--	1948	147	14 10	89 147	C	147	23	1951	T,E,50	Irr	
31-101	Fenneco Gas Trans. Co.	L. Patterson, Inc.	1945	598	6	598	E	161	53	5- -73	T,G,140	Ind	Screened 555-598 feet; reported pumping level 82 feet 5-73.
102	do.	do.	1951	441	6	437	C	162	39 26	do. 1955	T,G, 7 1/2	Ind	Screened 394-437 feet.
103	Spalinger	--	1960	180	12	180	C	160	20.1 20.0	2-24-66 3- 3-75	T,G,15	R	Originally drilled to fill duck and geese ponds. Unused for past 4 or 5 years.
203	Edgar Adkins	Katy Drilling Co.	1966	447	12	447	C	158	33.5	do.	T,E,50	Irr	Casing slotted 212-447 feet. <u>3/</u>
35-201	Sheridan Water Supply Corp.	do.	1965	659	10 6	589 659	E	282	165	1965	S,E, 7 1/2	P	Screened 600-627 and 635-650 feet; reported pumping level 195 feet after 35 minutes at 80 gal/min, 201.5 feet after 4 hours, 15 minutes at 100 gal/min, and 231 feet after 13 hours at 160 gal/min. <u>3/4/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-35-204	Henry Rabel, Jr.	L&N Drilling Co.	1973	197	4	197	C	224	112	7-13-73	S,E,3/4	D	Casing slotted 191-197 feet.
205	do	Henry Rabel, Jr.	1970	50	4	50	C	224	24.3	2-21-74	W	S	
206	Charles Haines	Sheridan Drilling Co.	1956	150	4	150	C	257	92.4 93.0	do. 3- 4-75	S,E,1/3	S	
207	Lester Tesch, Jr.	do.	1970	176	4	176	C	278	93	9-20-70	S,E	D	Casing slotted 155-176 feet.
208	McDowell Criswell	L&N Drilling Co.	1968	234	4	234	C	257	107	9-13-68	S,E,3/4	D	Screened 214-220 feet.
301	Shell Oil Co.	Layne-Texas Co.	1944	800	12 6	587 800	E	234	85 175.2	1944 3- 4-75	T,G,40	Ind	Casing slotted 700-800 feet. <u>2/</u>
302	do.	do.	1944	800	12 6	577 800	E	234	149 144 135	8- 4-52 4- 1-58 4-21-72	T,G,50	Ind	Casing slotted 690-790 feet; reported static level 76 feet 10-44; reported pumping level 152 feet at 411 gal/min 10-44.
303	John J. Williams	do.	1955	804	20 12	318 804	C-E	238	90.9 124.6	5- 9-60 3- 7-75	T,G	Irr	Casing slotted 101-804 feet; well pumped 1050 gal/min 5-9-60. <u>1/2/3/</u>
304	Shell Oil Co.	do	1965	833	12 6	690 833	E	230	222.6	11- 8-73	T,E,60	Ind	Screened 695-722, 726-736, 756-792, and 800-820 feet. Pumping level 263.9 feet after 7 hours, 45 minutes at 412 gal/min 10-5-65; static level 188.9 feet after 2-hour recovery. <u>3/</u>
305	Isam Briscoe	Holmes Drilling Co.	1953	256	4	256	C	248	108.4 120.6	2-21-74 3- 4-75	A	Ind	
306	do.	Sheridan Drilling Co.	1950	120	4	120	C	260	62	6- -72	S,E, 2 1/2	D,S	Screened 110-120 feet.
601	V. Obengoner	B&P Drilling Contractors	1965	397	4 3	363 397	C	210	--	--	N	N	Drilled to 442 feet; casing slotted 271-287, 341-363, and 363-397 feet; pumped 200 gal/min 12-23-65.
602	Sheridan Gas Unit	do.	1965	333	4 3	287 333	C	226	--	--	N	N	Casing slotted 269-333 feet; pumped 220 gal/min 11-26-65.
35-101	Dale Hunt	A. H. Justman	1950	784	24 12	240 784	E-C	223	--	--	T,G,150	Irr	Casing slotted 190-784 feet. <u>1/3/</u>
102	Shell Oil Co.	Layne-Texas Co.	1965	804	12 6	-- 784	E	223	197.7 184	11- 8-73 11-12-65	T,E,60	Ind	Screened 690-747, 778-784, and 794-804 feet; reported pumping level 256 feet after 7 hours at 412 gal/min.
103	Shell Oil Co., well 5	do.	1965	830	12 6	690 830	E	226	162	10-25-65	T,E,60	Ind	Screened 695-735, 745-765, 769-784, and 800-816 feet; pumping level 256 feet after 7 hours, 45 minutes at 412 gal/min. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-36-104	Sheridan Gas Unit	Butler Drilling Co.	--	300	4	300	C	236	110.3 113.6	2-21-74 3- 4-75	A	N	
105	do.	do.	--	300	4	300	C	218	73.9 76.2	2-21-74 3- 4-75	A	N	
106	Powers Bros.	L&N Drilling Co.	1973	144	4	144	C	206	40	11- 9-73	--	S	Casing slotted 136-142 feet; pump not installed at time of inventory.
107	Dale Hunt	Katy Drilling Co.	1974	905	20 12	450 905	E-C	230	127.5 126.8	3-14-74 3- 4-75	T,E,200	Irr	Casing slotted 270-905 feet.
201	George R. Burke	American Water Co.	1946	620	18 12	620	E-C	232	126.2	11- 7-73	T,G	Irr	Produces odorless gas.
202	C. T. Weise	Katy Drilling Co.	1964	600	14	600	E-C	217	104.6 98.5	1-16-74 3- 5-75	T,E,125	Irr	Measured discharge 978 gal/min 5-24-74. <u>3/</u>
203	A. J. Kruzek, Sr.	Johnnie Maresh	1951	320	6	320	C	203	52	2- -51	S,E,2	D,S	
204	Albert Bittner	Crowell Drilling Co.	1968	666	16 12	373 666	C-E	212	--	--	T,G,110	Irr	Casing slotted 98-666 feet; drilled to 691 feet.
205	F. F. Hoegemeyer	Stanolind Oil & Gas Co.	1949	10197	--	--	--	223	--	--	--	N	Oil test used in cross section. <u>4/</u>
301	William Lehrer	--	--	77	4	77	C	195	50.0 48.1	3-14-74 3- 6-75	W	S	
401	Sheridan Gas Unit #28	--	--	220	4	220	C	224	110.2 113.8	3-14-74 3- 4-75	A	N	
402	do.	--	--	300+	4	300+	C	214	102.2 107.0	3-14-74 3- 4-75	A	N	
501	James Schilling	--	--	63	4	63	C	192	44.2 44.5 43.8	1-16-74 5-17-74 3- 5-75	P,E,1/2	S	
502	Hunt Bros.	Sheridan Drilling Co.	1972	120	4	120	C	181	80	8-16-72	W	S	Casing slotted 100-120 feet.
503	J. A. Schilling	do.	1970	150	4	150	C	192	51	2- 6-70	S,E,1/2	S	Casing slotted 129-150 feet.
504	L. D. Schilling	--	1969	143	3	143	C	180	48.8 49.2	3-14-74 3- 5-75	A	N	Originally drilled for Ross Oil Co.
601	Buren Kallina	--	--	90	6	--	C	181	24	1955	W	N	Well destroyed.
602	John W. Mecon	Panama Pipe Line	1959	521	14	521	C	179	59.7	3-15-74	T,G,100	R	Casing slotted 80-521 feet.
603	William Lehrer	Katy Drilling Co.	1968	690	20 12	404 690	E	184	--	--	T,G,250	Irr	Casing slotted 470-690 feet; drilled to 861 feet. Reported pumping level 185 feet after 10 hours at 2873 gal/min; static level 110 feet 11-14-68. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-36-604	James Schilling	Crowell Drilling Co.	1973	403	14	403	C	173	48.3 54.2	11-29-73 3- 5-75	T,G,100	Irr	Casing slotted 103-403 feet. <u>3/</u>
605	William Lehrer	--	--	82	4	82	C	165	43.2	3-15-74	W	S	
801	Jim Kallins	--	--	244	4	244	C	175	54.5	3-14-74	A	S	
902	Engstrom Bros.	C. Mickelson	1920	100	4	100	C	158	41.3	3- 7-75	T,E,100	Irr	Measured discharge 1050 gal/min 5-23 74. <u>2/</u> <u>3/</u>
903	J. R. McClane	--	--	109	4	109	C	164	45.6 45.2	3-15-74 3- 5-75	S,E,3/4	S	
37-101	Frank & Ben Waligura	Leonard W. Mickelson	1968	236	14	236	C	181	60	1968	T,E,60	Irr	Measured discharge 758 gal/min 5-23-74. <u>3/</u>
102	Fling & Herman	Layne-Texas Co.	1941	234	24	40 62 12 151 234	C	184	53.6 53.3	3-15-74 3- 6-75	T,E,75	Irr	Casing slotted 31-62, 88-128, and 151-234 feet.
201	Mlavinka Bros	Katy Drilling Co.	1957	570	18 12	237 570	C	167	44.6 42.9	11-28-73 3- 6-75	T,G	Irr	Casing slotted 100-570 feet. <u>1/</u>
203	Lester Bunge	do.	1956	419	20 12	191 419	C	174	44.6 42.2	3-10-65 3- 6-75	T,G,60	Irr	Casing slotted 31-419 feet. <u>1/2/</u>
204	Ideal Cement Arena Plant	Layne-Texas Co.	1970	1025	16 12	400 1025	E-C	174	144 143	11-28-73 11- 5-70	T,E,300	Ind	Casing slotted 350-380, 440-480, 535-545, 555-570, 670-735, 760-825, 840-930, 945-980, and 990-1010 feet. Reported pumping level 332 feet after 8 hours at 3002 gal/min.
205	Leo Drlik	Crowell Drilling Co.	1971	109	14	109	C	166	37.8	11-29-73	T,E,30	Irr	Casing slotted 21-109 feet.
301	N. J. Schneider	American Water Co.	1950	130	14 12	90 130	C	165	--	--	N	U	Well abandoned.
302	William Lehrer	Crowell Drilling Co.	1955	112	20	112	C	152	24.2 22.0	3-10-65 3- 6-75	T,G	Irr	Casing slotted 82-112 feet; test hole to 254 feet. <u>2/</u>
304	Labay Bros	Labay Bros. & Joe Frnka	1949	80	12	80	C	166	35.8	11-28-73	N	U	Casing slotted about 20-80 feet.
305	Frank Waligura	--	1968	--	--	--	--	164	--	--	T,E,30	Irr	
306	Mike Waligura	Crowell Drilling Co.	1950	82	12	82	C	167	--	--	T,E,30	Irr	
307	N. J. Schneider	do.	1967	121	18	121	C	165	--	--	T,E,40	Irr	Casing slotted 51-121 feet.
308	Ben Waligura	Katy Drilling Co.	1974	210	12	210	C	161	40.4 35.2	5-23-74 3- 6-75	T,E,40	Irr	Casing slotted 80-120 feet; measured discharge 972 gal/min 5-23-74. <u>3/</u>
309	Bob Raley	Bay City Drilling	1968	80	20 18	80	C	167	37.0 33.7	8-30-74 3- 6-75	T,E,30	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-56-37-401	Boyd Rees	Leonard Mickelson	1957	301	18 16 12	55 155 301	C	166	42.1	3-11-65	N	U	Casing slotted 85-301 feet; well destroyed.
402	do.	Katy Drilling Co.	1967	297	14	297	C	166	59	5-17-67	T,G,90	Irr	Casing slotted 75-297 feet; measured discharge 1126 gal/min 5-23-74. <u>3/</u>
403	N. S. Eaton	B&P Drilling Contractors	1969	217	4	217	C	167	--	--	N	U	Casing slotted 198-217 feet.
404	C. R. Schiurring	Shell	1955 <sup>+</sup>	--	--	--	--	161	--	--	--	--	Oil test; chemical analysis run on brine. <u>3/</u>
501	L. J. Schilling	L. J. Schilling	1955	117	10	117	C	157	35.4 38.0	1- 7-74 3- 6-75	T,E,30	Irr	Casing slotted 60-117 feet; original 16-inch casing now lined with 10-inch casing.
502	L. D. Wied	Sheridan Drilling Co.	1969	89	4	89	C	166	31	9-23-69	W	S	Casing slotted 68-89 feet; drilled to replace old well that had reportedly gone "salty."
601	R. A. Shoop	Layne-Texas Co.	1951	158	16	158	C	157	36.1	3- 6-75	T,E,60	Irr	Casing slotted 42-158 feet. <u>1/2/</u>
602	William Abell	Crowell Drilling Co.	1951	110	14	110	C	155	--	--	T,G,50	Irr	Casing slotted 40-110 feet.
603	Frank Wesselski	L&N Drilling Co.	1957	95	10	95	C	156	--	--	N	U	Old well deepened 72-95 feet.
604	Albert Bittner	Otto Mickelson	1947	127	12	127	C	158	--	--	T,G	Irr	
606	do.	L&N Drilling Co.	1954	94	6	94	C	158	--	--	--	Irr	
607	Charles Kallina	Katy Drilling Co.	1957	318	12 14	112 318	C	162	37.1 37.7	2-10-59 3- 6-75	T,G	Irr	Casing slotted 100-318 feet. <u>2/</u>
608	Garwood, W.C.I.D. #2	do.	1970	331	8 6	247 331	C	157	33 34.6	8-16-66 11-28-73	T,E,25	P	Casing slotted 197-247 and 297-315 feet; Reported pumping level 94 feet after 4 hours at 550 gal/min 8-16-66. <u>3/</u>
609	William Lehrer	Frank Frnka	1935	110	8	110	C	160	37.9	4-19-37	J	D	Supplies machine shop; screened 102-110 feet. <u>3/</u>
610	Arnold's Gin	--	1877	62	6	62	C	154	43.3 31.1 27.8	3-19-36 1- 4-74 3- 6-75	N	U	Screened 58-62 feet. <u>3/</u>
611	Garwood Feed Pens	Crowell Drilling Co.	1958	80	5	80	C	142	20.0	3- 3-75	J,E,2	C	Used to water cattle on feedlot.
612	Frank Wesselski	Leonard Mickelson	1965	125	8	125	C	159	--	--	T,E,65	Irr	
701	Richard Korenek	do.	1956	195	20 12	105 194	C	162	43.1	3- 6-75	--	N	Casing slotted 81-194 feet; well abandoned due to saltwater contamination. <u>3/</u>
702	Dave Lundquist	Crowell Drilling Co.	1956	360	16 12	160 360	C	153	39.6	11-29-73	T,G,40	Irr	Casing slotted 50-140 and 180-360 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-37-703	Engstrom Bros.	Crowell Drilling Co.	1956	361	16 12	161 361	C	156	46.6 42.0	3-11-65 3- 7-75	T	Irr	Casing slotted 60-110, 140-160, and 180-360 feet. <u>1/2/3/4/</u>
704	do.	Fat Smidt	1925	108	24 12	108	C	155	41.1 36.0	11-29-73 12- 2-59	T,E,60	Irr	Screened, exact intervals unavailable.
705	Dave Lundquist	Johnson Water Well Service	1958	76	2	76	C	156	42.0	11-27-73	N	U	
706	do.	do.	1960	80	2	80	C	156	--	--	J,U,1/3	D	<u>3/</u>
707	do.	American Water Co.	1947	92	30 15	53 92	C	161	46.5 40.8	1-17-74 3- 6-75	N	N	
708	Richard Korenek	--	--	63	4	63	C	159	40.9	3-15-74	W	S	
801	Adolph Korenek	A. A. Wuensch	1959	153	16	153	C	162	--	--	R	N	Well abandoned; reportedly pumped 2000 gal/min, 1959. <u>1/3/</u>
802	James Schoellman	Crowell Drilling Co.	1968	156	24 12	152	C	151	37.4 36.8	1- 4-74 3- 6-75	T,G,50	Irr	Casing slotted 24-156 feet.
803	--	--	--	65	36	65	C	156	46.4 46.2	5-23-74 3- 6-75	N	N	
804	--	--	--	144	72 24	45 144	C	158	46.5 46.0	5-23-74 3- 6-75	N	N	Abandoned irrigation well.
905	R. C. Leopold	Arkec Drilling Co.	1956	120	12	120	C	157	37.1	3- 6-75	T,30	Irr	<u>2/3/</u>
906	Louis Hoffman	Leonard Mickelson	1958	125	12	125	C	148	40.1 39.8	12-18-73 3- 6-75	T,G,50	Irr	Casing slotted 78-125 feet.
907	Albert Bittner	L&N Drilling Co.	1956	101	12	101	C	157	--	--	T,E,40	Irr	
908	Edward Schneider	--	1967	110	9	110	C	149	--	--	T,G,15	Irr	Row crop well.
909	A. J. Cervermann	L&N Drilling Co.	1968	138	12	136	C	157	42	2- 8-68	T,G,30	Irr	Casing slotted 86-136 feet.
910	Richard Korenek	Dunn Water Well Service	1965	372	4	372	C	147	61.9	1- 1-74	S,E,1	D	Screened 367-372 feet.
911	do.	Leonard Mickelson	1964	150	12	150	C	154	--	--	T,G,250	Irr	Casing slotted 105-150 feet.
912	Edward Schneider	H&P Drilling Contractors	1966	103	4	103	C	149	--	--	U	N	
913	Lawrence Labay	L&N Drilling Co.	1973	100	4	100	C	156	50.1 41.6	3-19-74 3- 5-75	J,E,1/3	D	
3R-101	Earl Frels	do.	1968	244	4	244	C	155	28	6- 1-68	S,E,3/4	D	Casing slotted 211-244 feet.
102	George Cason	Leonard Mickelson	1956	106	14	106	C	144	15.7	3- 3-75	T,G,50	Irr	Casing slotted 60-72 and 75-105 feet. <u>1/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-38-103	Earl Freis	Crowell Drilling Co.	1956	117	14	115	C	152	19.0	1- 4-74	N	N	Casing slotted 57-117 feet.
104	Sugarland Industries	Frank Frnka	1926	60	6	60	C	141	26.7	4-20-37	N	N	Water level fluctuated with level of the Colorado River, often flowed when river flooded. <u>3/</u>
203	Howard Fitzgerald	Leonard Mickelson	1957	106	12	106	C	149	27.3	3-10-65	T,G,60	Irr	Casing slotted 60-106 feet.
401	H. Brocmgoole	Sheridan Drilling Co.	--	110	4	110	C	146	18 24 22.9	1959 1972 3- 3-75	S,E,1/3	S	
402	Oscar Wegenhoft	Katy Drilling Co.	1958	152	20 10	124 152	C	136	13.4	do.	T,80	Irr	Screened 59-152 feet.
43-901	Texas West Indies	Henry Cleveland	1946	525	20	525	C	142	95.0 89.2 94.1	10-26-59 3-24-65 2-14-67	N	N	<u>3/</u>
905	J. B. Hancock	Katy Drilling Co.	1960	705	20 12	705	C-E	144	110	2- -60	T,G,60	Irr	Casing slotted 205-705 feet.
906	Provident City Independent School District	Crowell Drilling Co.	1973	230	4	230	C	142	180	8- -73	S,E,1	D	Screened 210-230 feet. <u>3/</u>
907	Texas West Indies #7	do.	1965	700	20	700	C-E	143	104.4	3- 6-75	T,G,200	Irr	Casing slotted from 230 feet. <u>2/</u>
44-201	Charles Kallina	Katy Drilling Co.	1952	585	20 12	278 584	C	157	66.1 64.7	2-14-67 12-12-59	T,G,150	Irr	Casing slotted 140-585 feet.
203	do.	do.	1963	894	20 12	317 894	C-E	156	--	--	N	N	Casing slotted 289-894 feet. Pumping level 183 feet at 3344 gal/min, 10-minute static level 85 feet 2-21-63.
204	do.	do.	1968	755	20 12	393 755	C-E	158	--	--	T,G,350	Irr	Casing slotted 200-755 feet; pumping level 172 feet after 3-1/2 hours at 3460 gal/min, 15-minute static level 87 feet 3-7-68.
301	Cole P. Hopkins	Crowell Drilling Co.	1956	288	16 12	151 288	C	156	48.6 48.1	1- 8-74 3- 5-75	T,G,50	Irr	Casing slotted 65-288 feet; test hole drilled to 459 feet. <u>1/</u>
302	Charles Kallina	Katy Drilling Co.	--	250	12	250	C	153	51.6	3-12-73	T,G,70	Irr	<u>2/</u>
303	G. H. Harfet	Leonard Mickelson	1965	300	--	300	C	147	--	--	T,G,150	Irr	
304	J. E. Kainer	Otto Mickelson	1974	170	16 10	170	C	146	6	1932	T,E,100	Irr	Measured discharge 649 gal/min 5-23-74. <u>3/</u>
305	W. R. Frnka	Crowell Drilling Co.	1967	182	12	182	C	154	--	--	T,G,50	Irr	
407	Texas West Indies #4	American Water Co.	1946	660	20 12	660	C-E	149	97.30 72.30 73.3	10-26-59 1-18-74 2-25-75	N	N	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
DW-66-44-408	Texas West Indies #4W	Crowell Drilling Co.	1964	957	20 16 12	303 340 957	E-C	149	135	11-20-73	T,B,200	Irr	Casing slotted 196-957 feet. Reportedly pumps 3600 gal/min.
409	Texas West Indies #4R	do.	1963	900	18	900	E-C	147	--	--	T,G	Irr	Casing slotted 230-260, 300-360, 430-630, and 695-900 feet. Measured discharge 859 gal/min 5-23-74. <u>3/</u>
501	Texas West Indies #2	American Water Co.	1946	335	20 14	150 335	C	144	77.2 64.5	10-26-59 1-18-74	N	N	<u>1/2/</u>
502	J. Bruce Hancock	Crowell Drilling Co.	1964	1000	20 12	1000	E-C	145	120 71	12- -73 10- 6-64	T,G,200	Irr	Casing slotted 240-270, 373-590, 625-650, 690-720, 770-800, 870-890, and 930-1000 feet.
601	W. R. Frnka	do.	1956	96	12	96	C	141	48.7	3- 4-74	N	N	Casing slotted 46-96 feet. <u>1/2/</u>
602	Bob Raley	do.	1970	99	--	99	C	144	57.0 56.0	1- 7-74 3- 5-75	T,G,150	Irr	Measured discharge 1504 gal/min 5-23-74. <u>3/</u>
603	W. R. Frnka	do.	1967	670	16 12	250 670	C-E	140	--	--	T,G	Irr	Casing slotted 165-210, 240-318, 388-478, and 560-670 feet.
702	Texas West Indies #3	American Water Co.	1946	676	20 12	676	C-E	138	88.3 107.4	10-26-59 3-8-74	T,G,150	Irr	Measured discharge 1500 gal/min 5-9-60. <u>2/3/</u>
704	Texas West Indies #4	Crowell Drilling Co.	1966	996	20	996	C-E	143	117.6	1-18-74	T,C,200	Irr	Casing slotted 216-246, 276-316, 426-561, 666-726, 806-886, and 956-996 feet.
705	Dan Gillean	do.	1965	896	20 18 14	308 327 896	E-C	139	--	--	T,G,200	Irr	Casing slotted 233-293, 333-368, 393-483, 498-566, 698-797, and 793-896 feet. Measured discharge 1166 gal/min 5-23-74. <u>3/</u>
45-101	Curtis Fling	--	1910	87	24	87	C	152	45.0	3-25-69	N	N	<u>3/</u>
102	do.	Crowell Drilling Co.	1967	278	16 12	150 278	C	152	45.7	1- 7-74	T,C,90	Irr	Casing slotted 40-150 and 150-278 feet.
206	--	--	--	62	4	62	C	152	48.9	4-30-74	W	S	
404	Fat Smidt	--	--	70	24	70	C	141	58.3 56.3	6-25-74 3- 5-75	W	S	Old irrigation well converted to stock use.
<u>LAVACA COUNTY</u>													
RY-66-17-805	P. B. Croom	Leroy Richter Water Well Drilling	1971	126	4	126	E	305	36	12-22-71	S,E	D,S	Casing slotted 84-126 feet; test hole to 142 feet.
806	Ray C. Lewis	--	--	170	4	--	E	270	5	1964	S,E	D,S	Formerly flowed.
908	--	--	--	57	24	57	E	291	51.7	12- 4-73	J,E	S	Dug well, curbed with rock.

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-25-101	Arnold Berger	Leroy Richter Water Well Drilling	1966	85	4	85	B	345	--	--	J,E	D,S	Casing slotted 64-85 feet; test hole to 137 feet.
102	Lebert Berger	- Shelton	1956	116	4	116	B	353	70 51.2	11- -73 2-25-75	S,E	D,S	Cased, lower part is slotted.
201	Al Scheffler	Sheridan Drilling Co.	1971	104	4	104	E	352	50	6- 1-71	S,E	D,S	Casing slotted 89-104 feet.
202	Steve Janota	--	1961	252	4	252	E	304	--	--	P,E	D,S	Casing slotted 232-252 feet. <u>3/</u>
203	Antonio Tartazlia	Leroy Richter Water Well Drilling	1966	258	4	258	B	321	55	10-24-66	S,E,3/4	D,S	Casing slotted 239-258 feet; test hole to 289 feet.
204	Ray C. Lewis	--	--	36	36	36	E	312	29.0	1-18-74	J,E	S	Dug well, curbed with brick.
205	do.	Leroy Richter Water Well Drilling	1968	248	4	248	B	329	65	12-19-68	S,E	D	Casing slotted 225-248 feet; test hole to 267 feet.
301	Moreland Bacon	do.	1971	84	4	84	E	280	--	--	J,E	D,S	Casing slotted 63-84 feet; test hole to 250 feet. <u>3/</u>
302	Ray C. Lewis	--	--	117	4	--	E	280	45	--	J,E,5	D,S	
401	Edna Sebastian #1	Seaboard	1945	8515	--	--	--	372	--	--	--	N	Oil test used in cross section. <u>4/</u>
501	Charles Haralish, Sr.	Autrey Drilling Co.	1968	88	4	88	E	342	60	10- 4-68	J,E,1/2	D,S	Open-hole completion.
601	King & Richardson	--	1847	26	72	26	E	285	16.9	12- 4-73	B,H	D	Dug well; curbed with wood, which has been replaced several times.
701	Dr. Harvey Renger	A.A.C. Vacuum Trucks	1956	452	8	452	E-B	382	125	1956	T,G	Irr	Casing slotted opposite sands. <u>1/</u>
702	Bobby L. Bonorden	--	--	19	42	19	E	271	8.5	1-16-74	P,W	D,S	Dug well, curbed with rock.
703	do.	Marcus Ploeger	1972	114	4	114	B	271	39	2-29-72	S,E	D,S	Open-hole completion. <u>3/</u>
704	Charlie Brown	Friedel Drilling Co.	1970	111	4	111	B	274	51	11-14-70	J,E	D	Open-hole completion.
901	Barnes Hethcott	Autrey Drilling Co.	1971	130	4	130	E	321	96	9- 1-71	S,R	D,S	do.
26-101	Joe Ulbig, Sr.	Leroy Richter Water Well Drilling	1965	137	4	137	E	265	--	--	S,E	D,S	Casing slotted 106-137 feet; test hole to 159 feet.
401	Robert Jetinina	Autrey Drilling Co.	1971	105	4	105	E	240	33	1-10-71	P,E	D,S	Test hole to 165 feet; open-hole completion.
501	Ivan R. Clarke	Leroy Richter Water Well Drilling	1967	83	4	83	E	295	60 56.6 55.4	3- 4-67 11-14-73 2-26-75	S,E	D,S	Casing slotted 60-83 feet; test hole to 115 feet.
502	do.	--	--	59	36	59	E	295	50.1 44.5	11-14-73 2-56-75	P,S,E,W	S	Dug well, curbed with rock.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-26-601	T. A. Kubash	Sheridan Drilling Co.	1971	250	4	250	E	311	136	5-14-71	S,E	D,S	Casing slotted 230-250 feet.
801	A. F. Michalcik	Autrey Drilling Co.	1970	90	4	90	E	208	33	2-24-70	J,E	D,S	Open-hole completion.
901	M. Mitchell	Sheridan Drilling Co.	1971	188	4	188	E	310	111	3- 9-71	S,E	D,S	Casing slotted 168-188 feet.
902	do.	--	--	17	34	17	E	310	4.9 5.2	11-13-73 2-26-75	N	N	Dug well, curbed with plaster.
903	L. R. Sonntag	Sheridan Drilling Co.	1971	119	4	119	E	261	70	8-18-71	P,W	S	Casing slotted 99-119 feet.
27-701	S. M. Fuller	do.	1972	285	4	285	E	305	136	10-12-72	S,E	D	Casing slotted 265-285 feet.
702	O. J. Goats	do.	1971	240+	4	240	E	309	--	--	S,E	D,S	Cased, lower part is slotted. <u>3/</u>
33-101	Don H. Pagel	Johnnie Maresh Drilling	1969	68	4	68	E	233	33	10- 8-69	S,E,3/4	D,S	Open-hole completion.
102	E. G. Cook	--	--	28	36	28	E	280	12	12- -73	J,E	D,S	Dug well, curbed with rock.
103	Claudie Clark	Friedel Drilling Co.	1970	42	4	42	E	285	36	9-16-70	J,E	D,S	Open-hole completion.
201	John Haas	Autrey Drilling Co.	1971	160	4	160	E	348	103	6-25-71	S,E	D	Open-hole completion. <u>3/</u>
301	L. M. Barnes	--	1972	200+	5	200	E	245	43.7 43.2 43.0	11-14-73 2- 7-74 2-25-75	N	N	Cased, lower part is slotted; furnished water used while drilling oil test.
302	Alfrado Hessler	Autrey Drilling Co.	1970	92	4	92	E	265	54	7-14-70	J,E,1/2	D	Open-hole completion.
303	M. W. Mertz	Sheridan Drilling Co.	1972	159	4	159	E	295	76	3-18-72	S,E	D,S	Casing slotted 149-159 feet.
401	R. F. Horton	H&S Water Well Service	1966	344	6	344	J	300	--	--	S,E	D,S	Casing slotted 323-344 feet; test hole to 381 feet.
402	M. R. Wilson	--	1955	140+	4	140	B	287	--	--	J,E	D,S	Cased, lower part slotted. <u>3/</u>
403	City of Hallettsville well 6	Texas Water Wells	1972	550	8	550	J	290	95	9- -72	T,E	P	Casing slotted opposite sands between 136-540 feet; test hole to 974 feet. Reported average yield during 12-hour test was 312 gal/min with pumping level 206 feet 9-20-72. <u>1/3/</u>
404	--	Chandler Water Well Service	1974	--	4	--	--	293	70.4	2-11-74	--	D,S	Pump not installed.
405	--	--	1973	--	4	--	--	262	61.9	3-11-74	--	N	Cased, lower part is slotted; furnished water used while drilling oil test.
501	City of Hallettsville	--	1890	380	6	380	J	234	+2	10- -36	N	N	Deepened from 329-380 feet in 1955; ceased to flow in 1942. <u>3/</u>
502	do.	--	--	480	4	480	J	234	+4	2- -36	N	N	Deepened from 412-480 feet in 1955; ceased to flow in 1942. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) Below land surface datum (ft.)	Date of measurement			
RY-66-33-503	City of Hallettsville	Layne-Texas Co.	1949	519	16 10 8	-- -- 519	J	234	140 165	1-30-54 3- 8-74	T,E,50	P	Drilled to 667 feet and plugged back; screened opposite sands between 290-519 feet. Reported drawdown 90 feet after 2 hours pumping 500 gal/min 4-17-68. <u>2/4/</u>
504	do.	do.	1957	983	8 6 4	983	Ca	234	+	9- 4-59	T,E,15	P	Drilled to 1335 feet and plugged back; screened opposite sands between 930-965 feet. Reported flowed 60 gal/min when drilled and pumped 300 gal/min 9-59. <u>1/3/</u>
505	do.	--	--	480	3	480	J	234	+4	2- -36	--	--	Original well recased with packer at 480 feet. <u>3/</u>
506	do.	--	--	800	6	800	Ca	234	+10	do.	--	--	Drilled to 1300 feet and plugged back. <u>3/</u>
507	do.	Layne-Texas Co.	1964	620	18 12	290 620	J	275	115	6- 5-64	T,E,75	P	Drilled to 703 feet and plugged back. Underreamed and gravel packed 290-620 feet; screened opposite sands between 290-620 feet. <u>3/4/</u>
508	do.	Sheridan Drilling Co.	1968	102	4	102	E	265	57	5-15-68	S,R,2	Irr	Cased, lower part is slotted; irrigates golf course.
509	do.	do.	1968	102	4	102	E	265	57	do.	S,E,2	Irr	do.
601	C. C. Rouse	Chandler Water Well Service	1972	96	4	96	E	252	42	12-20-72	S,E	D,S	Open-hole completion.
602	Missionary Baptist Church	Friedel Drilling Co.	1970	81	4	81	E	268	45	4-25-70	P,E	D	do.
701	James Evers	do.	1970	130	4	130	E	252	82	7-14-70	S,E	D,S	do.
801	--	H&S Water Well Service	1971	160+	4	160+	E	285	83.3 83.0	1-17-74 2-11-74	--	--	Cased, lower part is slotted; furnished water used while drilling oil test.
901	Steve Otahal	Sheridan Drilling Co.	1971	166	4	166	E	217	44	4-15-71	S,E	D,S	Casing slotted 145-166 feet.
902	Bill Henke	Autrey Drilling Co.	--	124	4	124	E	213	60	--	S,E	D,S	Open-hole completion.
903	Walter Grant	Friedel Drilling Co.	1967	80	4	80	E	242	62	8-12-67	J,E	S	do.
904	Paul Schulte	do.	1970	70	4	70	E	241	51	9-23-70	S,E	D,S	do.
34-101	Gussy Koehne	Sheridan Drilling Co.	1968	146	4	146	E	248	57	6-17-68	S,E	H	Cased, lower part is slotted.
102	Rueben G. Sauer	do.	1971	184	4	184	E	273	--	--	S,E	D,S	
103	Robert Trlica	do.	1973	100+	4	100+	E	235	--	--	S,E	D,S	Temperature 230C.
201	Texas Water Development Board	Bureau of Reclamation	1970	48	1	48	C	195	19.9 18.1	12- 9-70 3- 4-75	N	N	Casing slotted 38-48 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-34-202	Texas Water Development Board	Bureau of Reclamation	1970	61	1	61	E	203	33.6 30.1	12- 9-70 3- 4-75	N	N	Casing slotted 51-61 feet.
203	Guy McKey	Autrey Drilling Co.	1972	90	4	90	E	235	54	7-31-72	S,E	D,S	Open-hole completion. <u>3/</u>
204	do.	--	--	70	36	70	E	235	51.6 51.0	11-13-73 2-24-75	P,W	S	Dug well, curbed with rock.
205	Julius Technik	Johnnie Maresh Drilling	1972	90	4	90	E	205	20	10- 4-72	S,E	D,S	Open-hole completion.
206	Texas Water Development Board	Bureau of Reclamation	1970	38	1	38	C	198	22.5	10- 8-70	N	N	Casing slotted 28-38 feet.
301	--	J&S Well Service	1973	440	4	440	E	255	95.0 94.8	11-13-73 2- 7-74	--	N	Casing slotted 400-440 feet; furnished water used while drilling oil test.
302	Robert D. Watts	Sheridan Drilling Co.	1968	150+	4	150+	E	292	--	--	S,E	D,S	
401	Leon Kahanek	Johnnie Maresh Drilling	1964	336	4	336	E	285	90	7- 1-64	S,E,3/4	D,S	Open-hole completion.
402	--	--	--	121	3	--	E	283	90.8 90.3	11-12-73 2-25-75	P,H	D	
501	Charlie Brown	Autrey Drilling Co.	1971	74	4	74	E	190	27	5-19-71	S,E	D,S	Open-hole completion. <u>3/</u>
601	Otto Pohl	Sheridan Drilling Co.	1968	102	4	--	E	180	28	8- 8-68	S,E,1/3	D	
602	Grady Judd	do.	1973	100+	4	100+	E	220	50	8- -73	S,E	D,S	Open-end completion. <u>3/</u>
603	Eddie Davenport	--	--	39	36	39	C	185	26.6	11-12-73	J,E	D,S	Dug well, curbed with rock. <u>3/</u>
604	J. B. Parks	Autrey Drilling Co.	1970	137	4	137	E	195	45	2-10-70	S,E	D,S	Open-hole completion. <u>3/</u>
605	Vic Muehr	Sheridan Drilling Co.	1968	171	4	171	E	220	51	9-10-68	S,E,1/2	D,S	Cased, lower part is slotted.
701	E. Ruztejovski	--	1955	189	4	189	E	248	85	1955	P,W	D,S	do.
702	do.	--	1973	180?	4	180?	E	253	94.6 94.0	12- 3-73 3- 5-75	--	--	Cased, lower part is slotted; furnished water used while drilling oil test. <u>2/</u>
801	Marcus Spanihel	Friedel Drilling Co.	1971	224	4	224	E	230	106	2-20-71	S,E	D,S	Open-hole completion.
802	Miss Jonnie Teltschick	Roth Drilling Co.	1968	201	4	187	E	239	95	3-12-68	S,E,1/2	D,S	do.
901	Texas Water Development Board	Bureau of Reclamation	1970	28	1	28	C	165	33.6 12.5	12- 9-70 3- 5-75	N	N	Casing slotted 18-28 feet. <u>2/</u>
902	do.	do.	1970	30	1	30	C	170	8.6	do.	N	N	Casing slotted 20-30 feet. <u>2/</u>
903	do.	do.	1970	41	1	41	C	179	24.5	do.	N	N	Casing slotted 31-41 feet. <u>2/</u>
904	Charlie Reeves	Friedel Drilling Co.	1973	92	4	92	C	178	35	3-21-73	S,E	D,S	Open-hole completion.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-34-905	James Simms	Sheridan Drilling Co.	1972	99	4	99	C	175	53	1-19-72	J,E	D,S	Casing slotted 89-99 feet.
906	D. A. Myers	Roth Drilling Co.	1968	160	4	160	C	192	64	5- 1-68	J,E	D,S	Test hole drilled to 217 feet; open-end completion. <u>3/</u>
35-203	Cecil Kane	Sheridan Drilling Co.	1972	152	4	152	C	255	79	9-20-72	S,E,1	D	Casing slotted 132-152 feet.
501	Miller Bros.	Katy Drilling Co.	1953	576	20 12	298 576	C-E	246	98.2	10-29-73	N	N	Gravel packed; cased, 455 feet slotted opposite sands.
701	--	--	--	37+	4	--	C	173	25.0	11- 7-73	J,B	D,S	
702	H. B. Allen Ranch	Sheridan Drilling Co.	1965	550+	4	--	E	220.	--	--	S,R	D,S	Cased, lower part is slotted. <u>3/</u>
703	do.	--	--	60	8	60	C	220	52.6	3- 4-74	N	N	Cased with vitreous tile.
801	Mrs. Vivian Cloninger	Katy Drilling Co.	1953	789	20 12	-- 789	E-C	213	74.8 90.8	4- 3-58 3- 5-75	T,G	Irr	Gravel packed; casing slotted 100-789 feet. <u>4/</u>
901	do.	do.	1953	840	20 12	317 840	E-C	211	69.2 90.3	3-20-56 3- 5-75	T,G	Irr	Gravel packed; casing slotted 100-840 feet. <u>1/2/3/</u>
902	Miller Bros.	do.	1951	559	18 16 12	90 261 559	C-E	192	68.8 89.3	3-20-56 3- 5-75	T,G	Irr	Gravel packed; cased, 387 feet slotted between 105-559 feet. <u>2/3/</u>
904	Oscar Einkauf	--	1945	200+	4	200+	C	199	49.6 47.2	10-10-73 3-12-74	C,G	S	Cased, lower part is slotted.
905	Lester Bunge	Leonard W. Mickelson	1971	852	18 12	329 852	C-E	214	--	--	T,G	Irr	Gravel packed; casing slotted opposite sands between 226-810 feet.
41-101	Oscar Lockstedt	Leeper Water Well Service	1968	127	4	127	E	218	70	9-30-68	S,H,1/2	D	Casing slotted 121-127 feet.
201	- Williams	--	1953	204	4	204	E	183	--	--	J,E	D,S	Cased, lower part is slotted.
202	G. H. Gerdes	Foreman Well Service	1967	333	7	333	E	219	37.3 36.9	1-17-74 3- 6-75	S,E	Irr,S	Casing slotted opposite sands. <u>2/3/</u>
301	Louis Schott	--	--	35	30	35	C	183	24.5 24.8	11- 8-73 2-26-75	P,W	D,S	Dug well, curbed with concrete blocks.
401	Mathew Hermes	Chandler Water Well Service	1972	97	4	97	E	203	--	--	J,E	D,S	Open-hole completion.
402	Larry Evans	Leroy Richter Water Well Drilling	1972	100	4	100	E	253	73	10-18-72	S,E	D,S	Casing slotted 80-100 feet.
501	Fred Schindler	--	--	68	8	68	E	225	35.9	11- 6-73	P,W	S	Cased with vitreous tile.
502	- Kountz	B&P Drilling Contractors	1967	273	4 3	273	E	231	--	--	--	--	Casing slotted 227-273 feet; furnished water used while drilling oil test.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued.

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-41-503	Floyd Hodges	--	1960	300+	4	300+	E	223	100	--	S,E	D,S	Cased, lower part is slotted, <u>3/</u>
504	Montie Young	Roth Drilling Co.	1968	111	4	111	E	224	74	9-20-68	J,E	D,S	Open-hole completion.
701	Burnett Jones	Friedel Drilling Co.	1971	177	4	177	E	205	65	6-26-71	P,E	S	do.
702	R. Spangler	Sheridan Drilling Co.	1968	165	4	165	E	222	60	11-21-68	S,E	D	Casing slotted 145-165 feet, <u>3/</u>
801	Mrs. Emma Jones	Friedel Drilling Co.	1971	206	4	196	E	229	91	6-18-71	S,E	D	Open-hole completion.
901	Hermes Bros.	--	1950	350+	6	350+	E	223	--	--	T,E,15	Irr	Casing slotted opposite sands.
903	do.	Schumacher & Sons	1971	335	10	335	E	205	90.3 91.1 91.7	2- 7-74 2-26-75 3- 5-75	T,G,50	Irr	Casing slotted 151-170 and 257-335 feet. Reported drawdown was 120 feet after pumping 700 gal/min for 2 hours; as used, pumps 150 gal/min. <u>1/</u>
42-201	Mary K. Smith	B&P Drilling Contractors	1967	418	4 3	291 418	E	205	--	--	N	N	Casing slotted 377-418 feet; furnished water used while drilling oil test.
202	--	--	--	95	3 1/2	95	E	235	54.0	10-29-73	P,W	S	
203	Bennie Hradilek	Roth Drilling Co.	1968	80	4	80	C	211	59	9-24-68	J,E	D,S	Open-hole completion.
204	Fohl #1	Boyce, Smiser & Runion Oil Co.	1951	3009	--	--	--	245	--	--	--	N	Oil test included in cross section, <u>4/</u>
301	M. I. Bozka	do.	1968	123	4	123	C	206	58	11- 5-68	J,E,3/4	D,S	do.
401	F. Klimitchek	--	1954	180+	4	180+	C	152	--	--	T,E,3	Irr	
501	--	--	1969	--	4	--	C	232	--	--	S,E	D,S	
502	Dr. Harvey Renger	--	1960	863	6	863	E	200	--	--	T,E	Irr	Casing slotted 747-757 and 791-845 feet; underreamed and gravel packed 736-863 feet. Pumping level 316 feet while pumping 402 gal/min. Converted oil test.
503	do.	--	--	135	4	135	C	198	82.7 82.1	10-29-73 2-25-75	C,W	S	
504	Grey Wolf Drilling Co.	B&P Drilling Contractors	1962	222	4	222	E	216	--	--	N	N	Casing slotted 192-222 feet; furnished water used while drilling oil test.
505	do.	do.	1962	289	4	289	E	216	--	--	N	N	Casing slotted 259-289 feet; furnished water used while drilling oil test.
601	Zock #1	Crubb & Hawkins	1949	2149	--	--	--	185	--	--	--	N	Oil test included in cross section, <u>4/</u>
701	J. L. Smothers	Chandler Water Well Service	1973	102	4	102	C	157	45	3- 9-73	S,E	D,S	Open-hole completion, <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water Level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-42-702	J. L. Smothers	Roth Drilling Co.	1968	85	4	85	C	162	55	8-25-68	J,E	D,S	Open-hole completion.
801	E. A. & W. A. Cardwell	Henry Cleveland	1954	749	20 12	310 749	E-C	187	100.0 92.8	10-17-73 3- 6-74	N	N	Casing slotted opposite sands below 240 feet; gravel packed. <u>4/</u>
802	Andrew Glaze	Crowell Drilling Co.	1953	751	20 12	261 751	E-C	185	107.3 115.9	10-22-59 3- 5-75	T,G	Irr	Casing slotted 261-751 feet; gravel packed. <u>2/3/</u>
803	- McElroy	--	--	89	4	89	C	172	70.6	10-31-73	P,W	S	Open-end completion.
804	J. L. Smothers	Joe Ferguson Water Well Drilling	1971	420	4	420	E	165	200	8-19-71	J,E	D,S	Casing slotted 397-420 feet; furnished water used while drilling oil test. <u>3/</u>
901	Cook, Cook & New	Crowell Drilling Co.	1956	444	14 12	174 444	C-E	172	--	--	T	--	Casing slotted opposite sands below 110 feet; test hole to 641 feet; gravel packed.
902	do.	Henry Cleveland	1953	576+	20 12	-- 576+	E	165	91.2 111.3	2-15-65 3- 5-75	T,G	Irr	Casing slotted opposite sands; gravel packed. <u>2/3/4/</u>
903	- Freeman	Crowell Drilling Co.	1962	737	18 14 12	310 579 737	E-C	172	106.7	3-13-74	--	Irr	Casing slotted opposite sands below 290 feet; gravel packed.
43-101	R. A. Miller	Joe Ferguson Water Well Drilling	1970	157	4	157	C	181	58	8-14-70	S,E	D	Casing slotted 148-157 feet.
102	F. P. Bates	Sheridan Drilling Co.	1971	120	4	120	C	170	52	3-31-71	S,E	D,S	Casing slotted 100-120 feet. <u>3/</u>
103	--	--	--	30	30	30	C	176	25.0	11- 7-73	P,H	D	Dug well, curbed with concrete rings.
201	Lester Bunge	Katy Drilling Co.	1954	856	18 12	318 856	E-C	171	97.2 111.4	10-19-59 3- 5-75	T,G	Irr	Casing slotted 151-856 feet; gravel packed. <u>2/3/</u>
202	Mobil Oil Corp., Wilcox Plant	L&N Drilling Co.	1953	420	10	420	C	174	62	12- 4-63	T,G	Ind	Casing slotted opposite sands 255-420 feet; gravel packed. Reported yield 400 gal/min with 24 feet drawdown.
203	do.	Layne-Texas Co.	1954	444	16 10	244 444	C	174	90	4-23-54	T,E,25	Ind	Underreamed and gravel packed 250-418 feet; reported yield 200 gal/min. <u>3/</u>
301	Miller Bros.	A. H. Justman	1949	1036	24 12	300 1036	E-C	194	67.5 98.1	3-20-56 3- 5-75	T,G	Irr	Casing slotted 236-1036 feet; gravel packed. <u>1/2/3/</u>
302	Lester Bunge	--	1948	700+	18 12	-- 700+	E-C	182	73.7 96.8	3- 9-60 3-12-74	T,G	Irr	Most of casing slotted opposite sands; gravel packed.
304	do.	--	1948	700+	18 12	-- 700+	E-C	176	99.3	10-26-59	T,G	Irr	do.
305	A. C. Faykus	--	1951	825	18 12	-- 825	E-C	168	--	--	T,G	Irr	do.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-43-307	Lester Bunge	Crowell Drilling Co.	1964	808	20 14 12	300 558 808	E-C	181	94.9	3-12-74	T,G	Irr	Casing slotted opposite sands between 198-808 feet; test hole to 902 feet; gravel packed.
308	A. G. Faykus	Katy Drilling Co.	1969	891	20 12	433 891	E-C	167	--	--	T,G	Irr	Casing slotted opposite sands below 290 feet; gravel packed. Reported pumping level 342 feet pumping 1520 gal/min in 1969.
309	do.	--	--	--	18	--	--	168	70.1	3-12-74	N	N	Caved in around casing which had settled below land surface.
310	F. W. Neuhaus #1	Shell Oil Co.	1941	10204	--	--	--	168	--	--	--	N	Oil test included in cross section. <u>4/</u>
401	Jack Doree	Joe Ferguson Water Well Drilling	1970	170	4	120	C	163	55	7- 3-70	J,E	D	Casing slotted 101-120 feet.
501	Shell Oil Co. well 1	Layne-Texas Co.	1949	415	10 5	326 415	C	173	--	--	T	Ind	Screened 329-355 and 399-413 feet; stand-by well.
502	Shell Oil Co. well 2	do.	1949	410	10 5	328 410	C	173	63	6-17-49	S,E	Ind	Test hole drilled to 504 feet; screened 328-353 and 393-408 feet. Pumping level 115 feet after 12 hours at 200 gal/min. <u>2/</u>
504	A. G. Faykus	--	1948	700+	18 12	-- 700+	C-E	169	104.7 70.4	10-19-59 3- 9-60	T,G	Irr	Casing slotted opposite sands; gravel packed.
505	R. D. Hoyt	Katy Drilling Co.	1951	674	24 12	240 674	C-E	165	103.6	9-30-59	T,G	Irr	Cased, 450 feet slotted opposite sands; gravel packed.
506	do.	Crowell Drilling Co.	1967	1008	20 16 12 10	300 430 870 1008	E-C	165	115.7	3-12-74	T,C	Irr	Casing slotted 300-870 and 950-1008 feet; gravel packed. <u>4/</u>
507	Wm. Zboril & Sons	L&N Drilling Co.	1973	256	4	256	C	165	110	4- 4-73	S,E	D,S	Cased, screened 234-240 feet. <u>3/</u>
508	Cook & New	Crowell Drilling Co.	1974	890	20 16 12	450 490 890	C-E	158	111.1	3-12-74	T,G	Irr	Casing slotted 450-890 feet; test hole to 1027 feet; gravel packed. <u>4/</u>
601	Hoyt & Turner	--	1948	700+	18 12	-- 700+	C-E	164	101.6	10-19-59	T,G	Irr	Casing slotted opposite sands; gravel packed.
602	J. W. Hancock	Henry Cleveland	1959	407	20 16 12	-- -- 407	C	161	99.9	10-26-59	T,G	Irr	do.
603	do.	Crowell Drilling Co.	1966	1028	20 16 12	299 319 1028	E-C	155	--	--	T,C	Irr	Casing slotted opposite sands between 246-1028 feet; gravel packed. <u>4/</u>

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-43-701	Cook & New	Crowell Drilling Co.	1956	490	14 12	176 490	C-E	171	86.6	3-13-74	N	N	Casing slotted opposite sands 176-490 feet; gravel packed.
702	do.	do.	1956	544	14 12 10	-- -- 544	C-E	167	--	--	T,G	Irr	Casing slotted opposite sands; gravel packed.
703	Texas Water Development Board	Bureau of Reclamation	1970	31	1	31	C	135	18.7	3- 5-75	N	N	Casing slotted 21-31 feet. <u>2/</u>
704	do.	do.	1970	34	1	34	C	136	20.7	do.	N	N	Casing slotted 24-34 feet.
705	Cook & New	Crowell Drilling Co.	1963	544 <sup>+</sup>	20 16 12	-- -- 544 <sup>+</sup>	E-C	171	87.9	3-13-74	T,C	Irr	Casing slotted opposite sands below 278 feet; gravel packed.
706	Simpson Heirs #1	Magnolia Petroleum Co.	1951	10560	--	--	--	152	--	--	--	N	Oil test included in cross section. <u>4/</u>
801	Morton Bros.	American Water Co.	1950	724	20 12	-- 724	E-C	152	76.0 116.8	3-10-60 3- 5-75	N	N	Casing slotted opposite sands; gravel packed. <u>2/</u>
802	Texas Water Development Board	Bureau of Reclamation	1970	67	1	67	C	138	40.6	do.	N	N	Casing slotted 57-67 feet.
803	Morton Bros.	Katy Drilling Co.	1967	1020	20 12	402 1020	E-C	152	107.2 107.3	3-21-68 3- 7-74	T,G	Irr	Casing slotted 267-1020 feet; gravel packed. <u>1/2/3/</u>
804	do.	do.	--	--	--	--	--	152	110.7	3-13-74	T,G	Irr	Casing slotted opposite sands; gravel packed.
805	Hoyt & Cook	Henry Cleveland	1953	833	20 12	-- 833	C-E	156	78.6 100.3	10-26-59 3-12-74	T,C	Irr	do.
806	A. T. Fenner	Roth Drilling Co.	1969	109	4	109	C	157	80	2-11-69	S,E	D,S	Open-hole completion.
807	Richard Fenner	do.	1969	121	4	98	C	156	80 78.2	2-18-69 2-25-75	J,R	D,S	Open-hole completion. <u>3/</u>
808	H. A. Cook	do.	1968	106	4	106	C	145	84	11- 9-68	S,E	D,S	Open-hole completion.
809	do.	Joe Ferguson Water Well Drilling	1971	358	4	359	C	138	--	--	J,E	D,S	Casing slotted 339-360 feet.
810	Morton Bros.	Katy Drilling Co.	1972	764	20 12	446 764	C-E	144	160	11- -72	T,C	Irr	Casing slotted 246-764 feet; test hole to 864 feet; gravel packed. Reported pumping level 310 feet after pumping 3100 gal/min for 4 hours. <u>1/</u>
811	Richard Fenner	--	1974	181	4	--	C	153	80.0	2-25-75	A	Ind	
902	Texas-West Indies well 11	Katy Drilling Co.	1959	620	20 12	300 620	C-E	153	70	4- -59	T,G	Irr	Casing slotted 185-620 feet; gravel packed. Reported drawdown 172 feet while pumping 2919 gal/min. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-43-903	Texas-West Indies well 7-11	Crowell Drilling Co.	1972	955	20 16 12	400 450 955	E-C	148	--	--	T,G	Irr	Casing slotted 400-955 feet; gravel packed. <u>3/</u>
44-101	Lester Bunge	--	1948±	700±	18 12	-- 700±	C-E	171	89.9	10-19-59	T,G	Irr	Casing slotted opposite sands; gravel packed.
104	E. G. Goff	Schlurking & Beaird	1948	900	18 12	300 900	E-C	173	95.1 102.8 120.9	do. 3-12-74 2-25-75	T,G	Irr	Casing slotted opposite sands; gravel packed. <u>4/</u>
105	do.	--	1948	780	18 12	300 780	E-C	177	--	--	T,G	Irr	Casing slotted opposite sands; gravel packed.
401	A. G. Paykus	Katy Drilling Co.	1953	728	20 12	278 728	C-E	167	105.5 84.4 109.4	10-19-59 3- 9-60 3-12-74	T,G	Irr	Casing slotted opposite sands; gravel packed. <u>3/</u>
402	do.	do.	1957	880	20 12	401 880	E-C	163	110.0 108.3	12- -57 3- 5-75	T,G	Irr	Cased, 620 feet slotted opposite sands; gravel packed. Reported drawdown 158 feet while pumping 2565 gal/min. <u>1/2/</u>
403	Texas-West Indies well 5R	American Water Co.	1946	550	20 12	-- 550	C	161	102.3 109.2	10-19-59 3-12-74	N	N	Casing slotted opposite sands; gravel packed.
404	Duñer & Cook	Henry Cleveland	1951	808	18 12	-- --	C-E	157	100.5 106.5	10-19-59 3-12-74	T,G	Irr	Casing slotted opposite sands; gravel packed. <u>4/</u>
405	Texas-West Indies well 5S	Crowell Drilling Co.	1964	970	20 16 12	300 320 970	E-C	160	--	--	T,G	Irr	Casing slotted opposite sands from 200-970 feet; test hole to 1030 feet; gravel packed. <u>3/4/</u>
410	Texas West Indies well 5N	do.	1968	1004	20 16 12	373 410 1004	E-C	161	--	--	T,G	Irr	Casing slotted 350-1004 feet; gravel packed.
411	Texas West Indica	--	--	73	3 1/2	73	C	160	57.8 57.6	10-24-73 3-12-74	P,W	S	Open-end completion.
49-101	F. B. Key	Leeper Water Well Service	1967	230	4	230	E	181	40	9-25-67	P,W	S	Casing slotted 224-230 feet.
102	J. Foster	do.	1973	100	4	100	E	163	40	2-28-73	J,E	S	Casing slotted 92-100 feet.
201	Mrs. Roy McCord	Autrey Drilling Co.	1973	118	4	118	E	185	72	6- 4-73	S,E	D	Open-hole completion.
202	J. Foster	Leeper Water Well Service	1973	120	4	120	E	200	65	3- 1-73	S,E	D,S	Casing slotted 110-120 feet.
301	S. A. Lowrance	Joe Ferguson Water Well Drilling	1972	214	4	214	E	135	67	7-24-72	--	--	Casing slotted 192-214 feet; furnished water used while drilling oil test.

See footnotes at end of Table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-49-401	Shell Pipe Line Station, Hope Station	Autrey Drilling Co.	1952	233	10-6	233	E	203	63	2- -52	T,E	Ind	Test hole to 333 feet. Reworked in 1967; a liner was installed with screen 232-242 feet. <u>3/</u>
402	C. Y. Jacobs	B&P Drilling Contractors	1964	223	4	223	E	218	--	--	--	--	Furnished water used while drilling oil test; casing pulled.
403	Barney Janecka	--	1940	85	4	85	E	163	40.4 38.5	11- 5-73 2- 9-74	F,W	D	
501	Carl Brandes	Leeper Water Well Service	1973	127	4	127	E	152	40	2-27-73	S,E	D,S	Casing slotted 117-127 feet.
502	E. A. Sibley #1	Shell Oil Co.	1962	2994	--	--	--	165	--	--	--	N	Oil test included in cross section. <u>4/</u>
701	B. D. McKinney	--	1954	1082	10	1082	E	172	57.1 53.4	10-26-73 3- 5-75	S,E, 7 L/2	Irr	Converted oil test. Casing gun-perforated opposite selected sands between 438-1030 feet. Reported yield 750 gal/min on a 48-hour test; present yield 300 gal/min. <u>2/4/</u>
702	do.	H&S Water Well Service	1970	188	4	188	E	170	54	5- 2-70	S,E	D	Screened 178-188 feet.
703	do.	--	--	65	6	65	C	192	54.4	10-26-73	P,W	S	
801	R. A. Williams	--	1973	230	4	230	E	157	57.0 56.7 50.3	do. 11- 7-73 2- 7-74	N	N	Cased, lower part is slotted; furnished water used while drilling oil test.
802	Eagle Banner Ranches, Inc.	Autrey Drilling Co.	1964	275+	8	275+	E	153	62.0	3- 6-74	T,E	Irr	Casing slotted opposite sands; gravel packed. Not used for several years.
901	do.	do.	1964	272	6	272	E	171	71.1 73.3	2-15-65 3-11-74	N	N	Casing slotted opposite sands; gravel packed. Not used for several years. <u>2/</u>
50-201	Henderson Farms well 16	Crowell Drilling Co.	1952	740	20 12	245 740	E-C	159	100.8 94.2 95.3	10-10-59 2-27-63 2-15-65	T,G	Irr	Casing slotted opposite sands between 222-740 feet; gravel packed. <u>3/</u>
202	Henderson Farms well 15	do.	1952	691	20 12	252 691	E-C	154	93.2 94.6	10-10-59 2- 7-67	T,G	Irr	Casing slotted opposite sands below 200 feet; gravel packed. Reported yield 1800 gal/min when drilled. <u>3/4/</u>
203	Henderson Farms well 23	do.	1966	920	18 16 12	296 316 920	E-C	166	--	--	F,G	Irr	Casing slotted opposite sands between 226-920 feet; gravel packed. <u>4/</u>
204	Henderson Farms well 24	do.	1967	932	20 16 12	345 370 932	E-C	163	--	--	T,G	Irr	Casing slotted opposite sands between 275-928 feet; gravel packed.
206	McElroy	--	--	97	4	97	C	165	59.1 58.9	10-31-73 2-24-75	J,E	D	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-50-302	Continental Oil Corp.	--	--	--	--	--	--	162	--	--	T,E,10	N	Formerly furnished water used at small refinery.
303	Henderson Farms well 22	Crowell Drilling Co.	1964	854	20 14 12	305 348 854	R-C	156	110 120.5	2-15-64 2-24-75	T,G	Irr	Casing slotted opposite sands 267-854 feet; gravel packed. Reported pumping level 240 feet while pumping 2700 gal/min. <u>4/</u>
401	Henderson Farms well 10	Layne-Texas Co.	1950	890	20 14	245 890	E-C	146	34 103.8	1- 5-51 3- 5-75	T,G	Irr	Casing slotted opposite sands 187-880 feet; gravel packed. Reported drawdown 111 feet while pumping 2650 gal/min. <u>2/3/</u>
402	Henderson Farms well 9	do.	1950	885	20 14	250 885	E-C	141	77.1	3-13-74	T,G	Irr	Casing slotted opposite sands between 210-885 feet; gravel packed.
403	Henderson Farms	Katy Drilling Co.	1962	846	18 12 10	271 606 846	E-C	142	92	10-20-62	T,G	Irr	Casing slotted opposite sands between 246-846 feet; gravel packed. Reported pumping level 319 feet while pumping 3405 gal/min.
502	Henderson Farms well 11	Layne-Texas Co.	1950	651	20 14	219 651	E-C	146	58	11-21-50	T,G	Irr	Casing slotted opposite sands between 155-641 feet; test hole to 1072 feet; gravel packed. Reported drawdown 142 feet after pumping 2539 gal/min for 8 hours. <u>1/4/</u>
503	Henderson Farms well 19	Crowell Drilling Co.	1953	616	16 12	240 616	E-C	143	--	--	T,G	Irr	Casing slotted opposite sands 204-616 feet; test hole to 695 feet; gravel packed. Reported pumped 2200 gal/min on test. <u>3/</u>
505	--	--	--	284	4	284	C	143	85.1 98.1	3-13-74 2-24-75	N	N	Cased, lower part is slotted; furnished water used while drilling oil test.
506	--	--	--	255	4	255	C	145	84.3	3-13-74	N	N	do.
507	Henderson Farms well 20	--	--	--	--	--	--	138	--	--	T,G	Irr	Casing slotted opposite sands; gravel packed.
508	W. M. Bolchers #1	Shell Oil Co.	1959	11588	--	--	--	143	--	--	--	N	Oil test included in cross section. <u>4/</u>
802	Henderson Farms well 21	Crowell Drilling Co.	1962	616	18 12	271 616	E-C	138	24.5	3-13-74	T,G	Irr	Casing slotted opposite sands below 246 feet; gravel packed. High water level due to natural gas escaping from formation into well.
51-101	Ruby Clark	Chandler Water Well Service	1973	88	4	88	C	135	--	--	J,E	D	<u>3/</u>
204	--	--	--	70	4	70	C	139	49.9 49.8	10-17-73 2-12-74	J,E	S	
205	Roger J. Clark	Autrey Drilling Co.	1972	160	4	160	C	142	130	7-25-72	S,E	D,S	Screened 150-160 feet.
206	Hays Nolan	--	1969	180±	3	180±	C	141	42.7 43.3	12- 4-73 2-12-74	P,H	D	Open-end completion. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-66-57-104	--	--	--	31	5	31	C	148	21.5 21.1	11- 7-73 2-24-75	N	N	Cased with tin.
201	Henderson Farms well 18	Crowell Drilling Co.	1953	584	16 12	234 584	E-C	138	161	6-12-64	T,G	Irr	Casing slotted 234-584 feet; test hole to 694 feet; gravel packed. Drawdown 28.1 feet while pumping 1020 gal/min 6-12-64.
202	Henderson Farms well 17	do.	1953	623	16 12	235 623	E-C	138	79.0 73.4	3-24-64 3-14-74	T,G	Irr	Casing slotted 235-623 feet; gravel packed. Measured discharge 1085 gal/min 10-3-63; temperature 25.0°C. 2/
203	--	--	--	173	4	173	C	149	75.1 91.8 78.0	3-14-72 11- 7-73 2-24-75	P,W	S	
501	T. W. Nickel	Joe Fudge	1920	116	3 1/2	116	C	167	72.4	3-14-74	P,E,1	S	Open-end well. 3/
67-24-805	Boniface Okrulik	Johnnie Mareah Drilling	1971	189	4	189	J	448	111	7-22-71	S,E	D,S	Open-hole completion.
31-301	Paul Newton	do.	1966	294	4	294	Ca	503	90	7-25-66	S,E	D,S	do.
502	Ludwig Mikes	do.	1972	197	4	182	Ca	524	112	10-19-72	--	S	do.
601	City of Moulton	Layne-Texas Co.	1946	364	18 8	210 364	Ca	403	105	8-27-59	T,E,20	P	Screened 260-290 and 310-350 feet; test hole to 1003 feet. Reported drawdown 48 feet while pumping 190 gal/min. 1/4/
602	do.	do.	1953	349	14 8	182 336	Ca	401	109.3	do.	T,E,20	P	Screened opposite sands 188-325 feet; reported yield 201 gal/min when drilled. 1/
603	Rudy Jahn	Johnnie Mareah Drilling	1953	86	6	86	J	352	35	1953	T,E	Irr	Open-hole completion; reported yield 50 gal/min when drilled.
604	Eugene Krejci	H&S Water Well Service	1956	380	10	380	Ca	371	67.0 43.2	8-27-59 3- 4-75	T,E,20	Irr	Casing slotted opposite sands below 210 feet; reported yield 280 gal/min. 2/3/
605	James Bryan	--	--	250+	4	250+	Ca	370	--	--	S,E	Irr	Casing slotted opposite sands.
606	City of Moulton	Layne-Texas Co.	1971	350	16 10	170 350	Ca	384	97	10-14-71	T,E	P	Screened opposite sands between 180-325 feet; test hole to 454 feet; underreamed and gravel packed. Reported drawdown 69 feet after pumping 210 gal/min for 8 hours. 3/
607	do.	-- Matula	1912	594	4	594	Ca	395	90	1944	N	N	Open-hole completion; reported yield 65 gal/min. Furnished city water supply until 1946. 3/
801	Joe Kolar	Leroy Richter Water Well Drilling	1969	244	4	244	Ca	502	120	6-12-69	P,E	D,S	Casing slotted 206-238 feet.
802	--	--	--	--	8	--	--	440	--	--	T,G	Irr	Rarely used.
803	Frankie Darilek	Johnnie Mareah Drilling	1965	250	4	250	Ca	410	50	5-31-65	S,E,3/4	D,S	Open-hole completion. 3/

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-67-31-901	W. H. Bradfield	Johnnie Maresh Drilling	1965	210	4	210	J	370	78	5-25-65	S,E,3/4	D,S	Open-hole completion.
902	Willie Weiting	Leroy Richter Water Well Drilling	1970	294	4	294	J	380	103	11-13-70	--	D,S	Casing slotted 273-294 feet; test hole to 315 feet.
903	W. H. Bradfield	do.	1968	504	4	504	Ca	441	160	11- 6-68	S,E, 1 1/2	D,S	Casing slotted 483-504 feet; test hole to 531 feet.
32-101	J. F. Minter	Johnnie Maresh Drilling	1965	94	4	94	J	430	25	10-24-65	S,E	D,S	Open-hole completion.
102	Adolph Gaertner	do.	1971	336	4	336	J	445	65	3-25-71	P,E	D,S	do.
103	Roland Burrows	do.	1973	400+	4	--	J	465	--	--	S,E	D,S	3/
104	Pilat's Feedlot	do.	--	383	4	383	J	446	50	--	S,E,1	S	Open-hole completion.
301	Ernest Chaloupka	do.	1965	600	4	600	J	368	100	9-28-65	S,E,2	D,S	do.
302	Jack O. Berwick	Leroy Richter Water Well Drilling	1969	210	4	210	B	380	71	10- 2-69	S,E, 1 1/4	D,S	Casing slotted 180-210 feet. 3/
303	Roland Burrows	Johnnie Maresh Drilling	1971	336	4	336	J	372	57	8-31-71	S,E	D,S	Open-hole completion.
401	Roy Buchek	--	1925	66	3	--	J	355	16	3- -62	J,E	D	3/
501	Adolph Kloesel, Jr.	Leroy Richter Water Well Drilling	1964	260	4	260	J	383	65	10- -61	--	S	Open-hole completion.
502	do.	do.	1961	401	4	401	J	358	65	10-21-61	--	S	do.
601	W. L. Kleb	H&H Water Well Drilling	1970	110	4	110	B	371	70	3-23-70	S,E,1/3	D	do.
602	Bohumil Bohulav	Johnnie Maresh Drilling	1963	405	4	405	J	290	15	5-15-63	S,E,5	D,S	do.
701	Frank Petras	do.	1964	790	4	790	Ca	446	190	4-23-64	S,E, 1 1/2	S	Open-hole completion. 1/3/
702	do.	do.	1965	142	4	142	J	445	80	4-29-65	J,E,2	D	Open-end completion. 3/
801	Walter Hildebrandt	do.	1970	278	4	278	J	380	107	3-19-70	S,E,1	D,S	Open-end completion.
901	Lillie Spies	Leroy Richter Water Well Drilling	1972	315	4	315	J	278	178	6-18-72	S,E	D,S	Casing slotted 273-315 feet. 3/
902	A. W. Spies	--	1950	1000+	--	--	Ca	283	--	1-22-74	+ J,E	D,S	Measured flow 6 gal/min 1-22-74; formation test hole. 3/
39-201	Charles Chavanetz	R. E. Sloan	1966	84	4	84	J	502	--	--	J,E	S	Open-hole completion. 3/
301	H. R. Seidenberger	- Dubose	1931	1330	8	1330	--	350	60	1936	N	N	Abandoned and filled; estimated yield 420 gal/min in 1936. Furnished water for Sulphur Park swimming pool; had H <sub>2</sub> S odor. 3/

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-67-39-302	G. D. Nollkamper	R&S Water Well Service	1956	572	10	572	J	320	29.4 35.6	9- 1-59 3- 4-75	T,E	Irr	Casing slotted opposite sands below 315 feet. Reported 50 feet drawdown after 6 hours pumping 1100 gal/min when drilled. Has H <sub>2</sub> S odor. <u>1/2/3/</u>
303	M. L. Priest	Schumacher & Sons	1968	539	8	539	J-Ca	345	45 52.5	6-19-68 2- 4-74	T,E,30	Irr	Casing slotted 309-329 and 409-539 feet. Reported drawdown 210 feet after pumping 600 gal/min for 2 hours when drilled; yield 250 gal/min as used; lower part sanded up. Has H <sub>2</sub> S odor. <u>3/</u>
304	H. R. Scidenberger	Leroy Richter Water Well Drilling	1972	642	10	642	J-Ca	350	275	6- 6-72	T,E,25	R	Drilled to replace RY-67-39-301. Casing slotted opposite sands 362-642 feet. Reported yield 300 gal/min when drilled. <u>1/</u>
305	H. E. Behringer	Johnnie Maresh Drilling	1965	300	4	260	J	405	95	6-22-65	S,E,1	D,S	Open-hole completion.
401	Alvin Boehm	do.	1970	152	4	145	J	482	122	7-25-70	P,E,1	D,S	do.
402	Q. B. Schaefer	O. T. Davis & Sons	1956	333	8	333	J	395	--	--	T,E,15	Irr	Casing slotted opposite sands; gravel packed. Reported drawdown 105 feet while pumping 175 gal/min. <u>1/</u>
501	do.	do.	1956	317	6	317	J	385	15.8 10.5	9- 1-59 2-25-75	T,E,5	Irr	Casing slotted 40-317 feet; gravel packed. Reported yield 500 gal/min on test when drilled.
503	City of Shiner well 4	Layne-Texas Co.	1946	377	16 8	85 377	J	335	32	9- -49	T,E,20	P	Screened opposite sands 103-364 feet. Reported pumping level 129 feet while pumping 220 gal/min. <u>4/</u>
504	do.	do.	1925	321	24 16 6	77 145 315	J	335	+ +	1925 1944	N	N	Screened opposite sands 96-321 feet. Reported pumping level 122 feet while pumping 200 gal/min, 1935; well plugged. <u>3/</u>
505	do. well 3	do.	1952	962	12 6	626 962	Ca	350	83.2	8-28-59	T,E,30	P	Screened opposite sands 753-949 feet; test hole to 1051 feet. Reported yield 530 gal/min when drilled. <u>4/</u>
506	Spoetzel Brewery	Alfred Gieptner	1932	130	6	130	J	330	--	--	P,E	Ind	Casing slotted 105-130 feet.
507	Joe Ruebner	O. T. Davis & Sons	1956	245	8	245	J	392	70.0 63.9	8-31-59 3- 4-75	T,E,25	Irr	Casing slotted 110-245 feet; reported yield 330 gal/min. <u>2/3/</u>
508	Ed Hraz	Schumacher & Sons	1968	150	4	150	J	349	93	2-18-68	S,E,3/4	D	Open-hole completion.
509	City of Shiner well 6	Layne-Texas Co.	1972	950	12 6	602 950	Ca-J	363	151	9-27-72	T,E,75	P	Screened opposite sands between 610-935 feet; test hole to 1007 feet; underreamed and gravel packed. Reported drawdown 117 feet after pumping average 487 gal/min for 8 hours. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-67-39-510	City of Shiner	Layne-Texas Co.	1962	980	12 6	745 980	Ca,J	380	157	1-16-63	T,E	P	Casing slotted opposite sands between 754-980 feet; underreamed and gravel packed. Reported pumping level 233 feet after pumping average 351 gal/min for 8 hours. <u>1/3/4</u>
511	Green-Dickson Park	--	--	300±	4	300±	J	410	--	--	S,E	R	This well with wells RY-67-39-512 and 513 furnish water used in park.
512	do.	--	--	200±	4	200±	J	375	--	--	S,E	D	
513	do.	Johnnie Mareah Drilling	1965	160	4	160	J	377	30	3- 8-65	S,E	P,D	Open-hole completion.
514	City of Shiner	Layne-Texas Co.	1938	400	8	400	J	338	27	7- 1-38	T,E,15	D	Screened opposite sands between 94-398 feet; underreamed and gravel packed. Reported pumping level 77 feet while pumping 108 gal/min. <u>3/</u>
515	Joe Huebner	A. C. Baca	1919	116	3	--	J	390	72.4	8-31-59	P,E,1/2	D,S	
516	Q. B. Schaefer	--	--	33	36	--	J	380	24.9 9.1 10.0	9- 1-59 2- 4-74 2-25-75	P,W	S	Dug well, curbed with rock.
601	Adolph Simper	Urban Well Service	1956	128	6	128	J	350	5.7 .9	9- 2-59 3- 4-75	T,E,5	Irr	Casing slotted opposite sands; reported yield 175 gal/min. <u>2/</u>
602	Kasper Wire Works	Johnnie Mareah Drilling	1955	100	4	--	J	335	--	--	S,E	Ind	This and several similar wells furnished about 15000 gal/d in 1973, used for cooling purposes.
603	Bennie Hybner	O. T. Davis & Sons	1956	150	8	150	J	300	23.0 18.2	8-28-59 3- 4-75	T,E,20	Irr	Casing slotted 29-150 feet; reported yield 250 gal/min. <u>2/3/</u>
701	Jerry Mikea	--	1973	--	--	--	--	439	--	--	S,E	S	
801	Allen R. Hagan	Friedel Drilling Co.	1971	97	4	97	J	390	55	3-11-71	S,E	D,S	Open-hole completion.
40-101	Harman Harms	Johnnie Mareah Drilling	1963	440	4	440	J	370	56	4-15-63	J,E, 1 1/2	S	
201	August Kubecka	Friedel Drilling Co.	1972	106	4	89	B	392	35	11- 4-72	S,E	D,S	Open-hole completion.
301	W. L. Shimck	Johnnie Mareah Drilling	1969	42	4	42	B	281	--	--	J,E	D,S	do.
401	Charles Chovanetz	Shellman Drilling Co.	1956	582	8	582	J	370	6.4 7.2	9- 2-59 3-13-61	T,E,30	Irr	Casing slotted opposite sands between 63-255 feet; open hole below 582 feet; gravel packed. Reported flowed when drilled and pumped 772 gal/min. <u>1/</u>
501	Leonard Mlodenko	O. T. Davis & Sons	1956	291	8	291	B	312	40.7 58.8	9- 2-59 3- 4-75	N	N	Casing slotted 45-291 feet; reported yield 250 gal/min. <u>2/</u>

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-67-40-503	Charles Netardus	Johnie Marsh Drilling	1972	320	4	320	J	340	138	5- 5-72	S,E	D,S	Open-hole completion.
601	W. H. Grahmann	Friedel Drilling Co.	1969	154	4	154	B	318	80	9- 9-69	S,E	D,S	do.
701	Waldrep Dairy	O. T. Davis & Sons	1956	210	8	210	J	325	58.5	8-28-59	T,E,15	Irr	Casing slotted 175-210 feet.
801	Andy Anderson	Friedel Drilling Co.	1970	115	4	115	E	293	75	4-20-70	S,E	D,S	Open-hole completion. <u>3/</u>
901	Fred Najvar	Leroy Richter Water Well Drilling	1972	130	4	130	E	252	40	10-16-72	S,E	D,S	Casing slotted 100-130 feet.
902	- Orsak	--	--	200+	4	--	E	237	37.8 35.9	3-11-74 2-25-75	--	--	Furnished water used while drilling oil test.
47-201	T. R. Marshall	Autrey Drilling Co.	1971	380	4	380	J	445	189	5-12-71	S,E,5	Irr	Cased, lower part is slotted; test hole to 490 feet. Reported yield 80 gal/min.
301	Rudy Dlcak	do.	1968	86	4	86	B	339	46	6-25-68	S,E,3/4	D	Open-hole completion.
603	Restland Memorial Park	Markus Ploeger	1957	280	10	280	E	308	64.6 62.1	4-23-59 3- 6-75	T,E,15	Irr	Casing slotted 196-275 feet; test hole to 420 feet; cement plug at 280 feet. <u>2/3/</u>
604	City of Yoakum	Dawson Drilling Co.	1950	471	10 8	201 471	J	295	55 73.6	2- 7-52 2-11-74	T,E,40	P	Screened opposite sands 197-470 feet; test hole to 1205 feet. Reported drawdown 127 feet while pumping 500 gal/min when drilled. <u>1/2/3/4/</u>
605	do.	Katy Drilling Co.	1970	600	18 10	215 595	J	328	135	1- -71	T,E,60	P	Screened opposite sands 220-590 feet; reported drawdown 110 feet while pumping 596 gal/min for 1 hour when drilled.
48-101	- King	Friedel Drilling Co.	1972	124	4	124	C	278	55	1-18-72	S,E	D	Open-hole completion. <u>3/</u>
102	Clm Bassett	Autrey Drilling Co.	1971	120	4	92	B	303	54	4- 5-71	S,E,3/4	D,S	Open-hole completion.
201	Morris Jackson	Roth Drilling Co.	1968	53	4	53	E	266	42	7-26-68	P,R	D	do.
202	J. C. Hermes	Autrey Drilling Co.	1970	320	6 4	-- 320	E	265	76	5-25-70	S,E,15	Irr	Screened 282-320 feet.
301	--	--	--	51	42	51	E	285	50.4 48.4	1-15-74 2-24-75	P,E	S	Dug well, curbed with rock. <u>3/</u>
401	Gus Motal	Schumacher & Sons	1970	125	4	125	E	307	85	6- -70	S,E	D,S	
402	Elias Krejli	Autrey Drilling Co.	1970	120	4	120	E	315	71	4- 1-70	--	D	Open-hole completion.
403	Raymond Meyer	Markus Ploeger	1954	450+	5	450+	B	300	50.7 54.1	9-30-59 2- 5-74	S,E	S	Formerly used for irrigation; in 1973 used to fill fish ponds.
404	do.	do.	1956	422	10	422	B	288	57.2 50.2	9-30-59 2- 5-74	T,E,40	Irr	Screened opposite sands 201-422 feet; reported yield 755 gal/min when drilled. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
RY-67-48-501	Jerome Pustka	Friedel Drilling Co.	1972	114	4	114	E	223	76	3- 5-72	S,E	S	Open-hole completion. <u>3/</u>
502	A. T. Graham	do.	1971	53	4	53	E	261	38	9-18-71	S,E	D,S	Open-hole completion.
503	Jim Brenek	Roth Drilling Co.	1968	60	4	60	E	255	48	9- 9-68	S,E	D,S	do.
601	Marbry McCord	do.	1968	104	4	85	E	240	48	7-17-68	S,E	D,S	do.
702	Texas A&M University	L. C. Capps	1959	445	6	-- 445	J	305	111	4- -59	T,H, 7 1/2	Irr	Screened 335-350 and 410-445 feet; test hole to 555 feet and plugged at 475 feet. Reported drawdown 17 feet after pumping 114 gal/min for 4 hours. <u>1/3/</u>
703	do.	Katy Drilling Co.	1969	430	10	430	J	275	87	5- 7-69	T,E	Irr	Screened 320-430 feet; gravel packed. Reported pumping level 262 feet after pumping 500 gal/min for 1 1/2 hours when drilled.
801	T. E. Boswell	Markus Ploeger	1970	50	4	50	E	250	--	--	J,E	D,S	Test hole to about 150 feet.
901	Wm. Hairall	Friedel Drilling Co.	1972	61	4	61	E	212	37.3 35.3	1-17-74 2-24-75	N	--	Open-end completion
902	Garland Walker	Autrey Drilling Co.	1973	167	4	167	E	233	75	2- 8-73	F,W	D,S	Screened 157-167 feet.
56-301	J. Weingarten, Inc.	Johnnie Maresh Drilling	1963	422	4	422	E	195	73	11-15-63	S,E	S	Open-hole completion. <u>3/</u>
302	Charles Bellinger	Roth Drilling Co.	1968	81	4	81	E	246	74	3- 7-68	S,E,1/3	D	Open-hole completion.
601	Rex Kutzer	Autrey Drilling Co.	1972	87	4	87	E	202	48	8-30-72	S,E	D,S	Open-hole completion. <u>3/</u>
602	Alfred Kutzer	Leroy Richter Water Well Drilling	1968	154	4	154	E	198	48	3-15-68	J,E, 1 1/2	D,S	Casing slotted 92-154 feet; drilled to 220 feet. <u>3/</u>
603	J. G. Smith #1	Shell Oil Co.	1949	7828	--	--	--	190	--	--	--	N	Oil test included in cross section. <u>4/</u>
<u>WHARTON COUNTY</u>													
ZA-65-41-101	J. B. Harison	E. H. Guttenberger	1968	380	8	380	C	90	50	7- -74	S,E	R,Irr	
102	do.	Crowell Drilling Co.	1958	333	12 8	175 333	C	85	22	3- -58	T,G	R,Irr	Casing slotted 80-115, 153-175, 200-250, and 275-333 feet. <u>1/</u>
401	L. C. Berger	Jerry Baseda	1955	90	6	90	C	86	25.0	3- 3-75	T,G	Irr	<u>2/</u>
402	Herman Wittig	Crowell Drilling Co.	1974	338	14	338	C	82	37.7	7-18-74	T,G,50	Irr	Casing slotted 157-230 and 293-338 feet. <u>3/</u>
501	Wayne E. Barker	- Souder	1958	181	12	181	C	75	26	1958	T,G,30	Irr	Casing slotted 107-181 feet; pump set at 70 feet.
502	do.	Texas Gulf Sulfur	1950	125	4	125	C	73	28.2	6-27-74	N	N	
503	do.	Texas Union Oil Co.	1971	90	4	90	C	74	27.1	do.	N	N	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-65-41-504	A. B. Chilek	E. H. Guttenberger	1970	98	6	98	C	76	37 45.1	5- -70 3- 6-75	T,E	R	Casing slotted 84-98 feet.
603	Duval Texas Sulfur	Duval Texas Sulfur	1937	708	13 10 18	125 127 236	C	74	53.4	9-23-74	N	N	Cased to only 236 feet; casing screened 167-234 feet. <u>3/</u>
701	C. C. Homeyer	Leonard Mickelson	1971	466	18 12	302 466	C	86	--	--	T,G,150	Irr	Casing slotted 185-199, 214-234, 240-250, 259-302, 312-347, 360-366, 371-379, 385-405, 410-439, and 447-464 feet; pump set at 140 feet.
702	do.	Katy Drilling Co.	1954	576	20 12	206 576	C	86	28.3 22.9	6-25-74 3-26-75	P,W	R,S	Casing slotted 179-576 feet.
703	Iago School	E. H. Guttenberger	1964	500 $\frac{1}{2}$	4	500 $\frac{1}{2}$	C	82	62.6	6-27-74	S,E	P	
704	Leonard Wittig	Davis Water Well Service	1972	322	13	322	C	85	18	4-29-72	T,G,70	Irr	Casing slotted 234-319 feet; pump set at 140 feet. <u>3/</u>
705	W. J. Gavranovic	--	--	--	13	--	C	86	--	--	T,G,50	Irr	
801	Texophyl Corp.	Raymond Weinbrunner	1952	156	14 10	-- 156	C	78	--	--	T,E,15	N	Casing slotted 116-156 feet.
802	City of Boling #1	Al Patterson	1929	722	6	722	C	76	15 40	1929 1940	T,E, 7 1/2	P	Pump at 60 feet
803	City of Boling #2	A. P. White	1944	874	4	874	C-E	76	15	1945	T,E,3	P	Casing slotted 853-874 feet; pump at 60 feet. <u>3/</u>
804	City of Boling #3	E. T. Davis	1949	208	6	208	C	78	48.0	6-27-74	S,E,2	P	Wells #1 and #2, 50 feet away, pumping while water level was measured 6-27-74. <u>3/</u>
805	Devoy Shaw	--	1959 $\frac{1}{2}$	--	9	--	C	76	7.4 6.0	6-25-74 3- 6-75	T,G,15	Irr	
806	--	--	--	--	13	--	C	73	37.4	9-23-74	N	N	Originally industrial well or sulfur well.
902	Texas Gulf Sulfur, Weems #5	Texas Gulf Sulfur	1929	529	20 15	342 529	C	75	28.0	3- 1-44	N	N	Casing slotted 349-498 feet. <u>2/3/</u>
903	Texas Gulf Sulfur, Weems #14	do.	1953	495	13 10	-- 495	C	73	--	--	N	N	
904	Texas Gulf Sulfur, Weems #19	do.	1958	393	13 10	213 393	C	71	54.4	6-27-74	N	N	Casing slotted 239-279 and 361-391 feet.
905	Texas Gulf Sulfur, Weems #9	do.	1947	373	13 10	292 373	C	70	22.0 41.3	7-18-47 3-15-60	N	N	Screened 272-365 feet.
906	Texas Gulf Sulfur, Weems #10	do.	1950	505	13 10	351 505	C	70	30 47.1 59.4	6-18-50 3-15-60 6-26-74	N	N	Screened 411-471 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-65-41-907	Texas Gulf Sulfur, Weems #11	Texas Gulf Sulfur	1950	488	16 13	281 488	C	73	48 63.6	11- 9-50 6-26-74	N	N	Screened 421-486 feet.
908	Texas Gulf Sulfur, Weems #13	do.	1952	490	16	490	C	71	56.9	do.	N	N	Screened 353-444 feet.
909	Texas Gulf Sulfur, Taylor #3	do.	1928	342	20 15	-- 342	C	70	48.8	3- 3-75	N	N	Drilled to 487 feet. <u>2/</u>
910	Texas Gulf Sulfur, Taylor #7	do.	1955	617	20 13	302 617	C	64	30 44	7- -61 10- 3-66	T,E,150	Ind	Screened 320-420, 450-520, 535-555, and 570-617 feet.
911	Texas Gulf Sulfur, Taylor #8	do.	1956	614	20 13	300 614	C	68	40 62 90	9- 1-61 9- 3-68 7- 2-74	T,E,150	Ind	Screened 340-360, 410-430, 450-470, 485-525, and 540-610 feet.
912	Texas Gulf Sulfur, Taylor #6	do.	1955	725	20 13	360 725	C-E	70	40 58 68	9- 1-61 12- 2-68 2- 1-74	T,E,150	Ind	Casing slotted 370-500 and 520-600 feet.
913	Texas Gulf Sulfur, Weems #2	do.	1928	835	12 8 6	181 479 835	C-E	74	25	4- -28	N	N	Screened 251-293 feet. <u>3/</u>
914	Texas Gulf Sulfur, Weems #3	do.	1928	194	--	--	C	76	--	--	N	N	
915	Texas Gulf Sulfur, Weems #4	do.	1928	532	20 15	288 532	C	70	--	--	N	N	Screened 284-370 feet. <u>3/</u>
916	Texas Gulf Sulfur, Weems #6	do.	1929	414	13 10	344 414	C	70	25 41.6	11- -29 6-26-74	N	N	Screened 383-407 feet. <u>3/</u>
917	Texas Gulf Sulfur, Weems #7	do.	1941	776	--	776	C-E	73	--	--	N	N	<u>3/</u>
918	Texas Gulf Sulfur, Weems #8	do.	1941	617	13 10	150 617	C	74	24.5 58.3	2- 3-47 4- 8-54	N	N	Screened 416-445 feet.
919	Texas Gulf Sulfur, Weems #12	do.	1951	473	13 10	473	C	74	--	--	N	N	Screened 433-463 feet.
920	Texas Gulf Sulfur, Weems #22	do.	1960	475	16 11	245 475	C	75	-	--	N	N	Casing slotted 320-335, 375-395, 430-450, and 460-470 feet.
921	Texas Gulf Sulfur, Weems #23	do.	1961	540	16 11	347 540	C	73	61.5	6-27-74	N	N	Casing slotted 355-390, 450-480, and 520-535 feet.
922	Texas Gulf Sulfur, Weems #27	do.	1963	460	13 10	217 460	C	73	--	--	T,E,40	Ind	Casing slotted 240-260, 315-330, 370-385, 415-425, and 440-455 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-65-41-923	Texas Gulf Sulfur, Taylor, #1	Texas Gulf Sulfur	1928	1022	--	--	C-E	68	--	--	N	N	
924	Texas Gulf Sulfur, Taylor #5	do.	1929	659	--	--	C	69	--	--	N	N	
925	Texas Gulf Sulfur, Taylor #9	do.	1963	450	16 11	250 450	C	69	60	7- -74	T,E,75	Ind	Casing slotted 265-280, 315-330, 360-380, and 430-445 feet; pump at 185 feet. <u>2/</u>
926	Texas Gulf Sulfur, Taylor #10	do.	1965	579	16	579	C	71	64.8	6-26-74	N	N	Casing slotted 315-331, 375-400, 465-495, and 535-570 feet.
927	Texas Gulf Sulfur, Taylor #12	Layne-Texas Co.	1967	602	16 12	295 602	C	72	73 65.4	7- -67 6-26-74	T,E,100	Ind	Screened 305-325, 375-395, 450-475, and 535-560 feet. <u>2/</u>
928	Texas Gulf Sulfur, Taylor #13	do.	1967	607	16 11	365 607	C	72	69	9- -67	T,E,50	P	Screened 369-389, 459-479, 524-534, and 549-579 feet; reported pumping level 94 feet after 7 hours at 599 gal./min. <u>2/</u>
929	Texas Gulf Sulfur, Taylor #14	do.	1967	600	18 13	249 600	C	70	70	9- -67	T,E,150	Ind	Screened 308-349, 386-426, 456-496, 498-536, and 546-584 feet; reported pumping level 110 feet after 4 hours at 2080 gal./min. <u>1/2/</u>
930	Texas Gulf Sulfur, Taylor #4	Texas Gulf Sulfur	1928	456	20 15	-- 456	C	70	18.4	6-26-74	N	N	
931	Texas Gulf Sulfur, Weems #15	do.	1954	453	13 10	453	C	73	47.0	do.	N	N	Screened 392-453 feet.
932	do.	do.	1953	9261	--	--	--	63	--	--	--	N	Oil test included in cross section. <u>4/</u>
49-101	R. L. Fields #2	Leonard Mickelson	1952	638	20 12	200 638	C	71	--	--	T,G,110	Irr	Casing slotted 107-128, 140-144, 189-204, 216-229, 254-276, 289-317, 325-365, 374-483, and 495-636 feet.
102	R. B. Trull	Katy Drilling Co.	1968	270	14	270	C	77	--	--	T,E,150	Irr	Casing slotted 75-270 feet. <u>3/</u>
103	Tom Henderson	--	--	98	4	98	C	79	20.1 16.8	8-22-74 3- 6-75	J,E	S	<u>3/</u>
104	Bay Prairie Aggregate Co.	Otto Janssen	1974	335	6	335	C	87	--	--	S,E,10	Ind	Casing slotted 180-200 and 295-335 feet.
105	do.	Davis Water Well Service	1968	95	4	95	C	87	--	--	S,E,3	Ind	Casing slotted 75-95 feet.
106	do.	do.	1968	95	4	95	C	87	--	--	S,E,3	Ind	Casing slotted 75-95 feet.
201	G.C.&S.F. Railroad	--	1929	392	10	392	C	72	39.5	3- 6-75	N	N	<u>2/3/</u>
301	A. K. King, Jr.	K&S Drilling Co.	1956	214	16	214	C	68	28.8 21.2	10- 3-66 7-18-74	T,G,50	Irr	Casing slotted 160-166 and 200-214 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-65-49-303	Herman Wittig	O. T. Davis & Sons	1970	204	14	204	C	70	22.6	6-26-74	T,G,50	Irr	Casing slotted 130-204 feet.
401	George Willrich	A. A. Wuensch	1957	207	12	207	C	80	18.1	4- 8-71	T,E,50	Irr	Reported discharge 1500 gal/min 4-8-60. <u>2/3</u>
402	R. B. Trull	Leonard Mickelson	1948	579	18 13	145 579	C	75	39.0	3-22-66	T,G	Irr	Casing slotted 70-120, 143-183, 206-216, 228-248, 258-304, 335-417, 457-485, 492-527, and 560-579 feet.
403	Joe Prosfika	do.	1948	548	18 12	136 548	C	78	18.6 17.0	6-24-74 3- 6-75	T,G,110	Irr	Casing slotted 124-148, 159-196, 247-251, 275-306, 320-342, 378-397, 419-430, and 492-548 feet.
404	Trull & Herlin	Layne-Texas Co.	1966	1082	20 14	327 1082	C-E	77	56	11-23-66	T,G,250	Irr	Casing slotted 330-363, 397-424, 438-453, 460-503, 525-543, 554-587, 615-718, 755-773, 787-814, 868-881, 887-970, 983-1013, 1019-1043, and 1051-1070 feet. <u>1/3/4/</u>
405	H. R. Flournoy	Leonard Mickelson	1968	125	12	125	C	76	25	8- -66	T,G,90	Irr	Casing slotted 82-125 feet.
501	G. R. Hawes	Layne-Texas Co.	1956	801	18 14	311 801	C-E	67	41.0 36.4	11-19-56 3-23-65	T,G,110	Irr	Casing slotted 246-306, 341-401, 481-521, 536-546, 561-581, 696-756, and 766-791 feet. <u>3/</u>
503	J. E. Gary	Leonard Mickelson	1972	329	20 12	197 329	C	67	40	1- -72	T,G,120	Irr	Casing slotted 115-166, 185-196, 211-291, and 296-319 feet.
504	do.	--	--	104	5	104	C	67	30.5	6-25-74	P,W	S	
505	Gene Carroll	O. T. Davis & Sons	1968	300	16	300	C	70	24.8	do.	T,G,50	Irr	
701	Hayden Bock	do.	1958	201	8	201	C	75	13.7	do.	T,G	Irr	Casing slotted 75-201 feet.
702	do.	do.	1957	268	12	268	C	71	10.3	do.	T,G,50	Irr	Casing slotted 65-268 feet; reported discharge 1500 gal/min 1957.
66-30-901	Dan Gertson	Crowell Drilling Co.	1968	540	18 16 12	258 430 540	C	162	--	--	T,E,150	Irr	Casing slotted 100-540 feet.
902	--	--	--	96	5	96	C	156	47.4 37.2	6-12-74 3- 4-75	P,W	S	
903	Dan Gertson	--	--	44	4	44	C	162	21.5	6-12-74	N	N	
904	do.	--	--	108	4	108	C	154	63.7	6-27-74	P,W	S	
31-104	E. C. Cassidy	E. C. Cassidy	1926	50	2	50	C	156	25	4-19-40	N	N	Bored well, finished with sandpoint. <u>3/</u>
201	Roy Kaechlele	Katy Drilling Co.	1966	751	20 12	354 751	C-E	150	35.2	3- 3-75	N	N	Casing slotted 148-751 feet; reported pumping level 168 feet after 4 hours at 3334 gal/min 3-7-66. <u>2/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-31-202	Joe Anderson	Katy Drilling Co.	1966	852	20 12	296 852	C-E	153	88	10- -66	T,E,150	Irr	Casing slotted 204-852 feet; reported pumping level 201 feet after 4 hours at 3046 gal/min 10-66.
204	do.	--	1931 <sup>+</sup>	30	4	30	C	149	12.5	6-27-74	N	N	
205	do.	L&N Drilling Co.	1973	75	4	75	C	146	11.6	do.	S,R,	D	
206	--	--	--	39	4	39	C	143	12.0 8.3	8-21-74 3- 4-75	P,W	S	
301	J. C. Hlavinka	Crowell Drilling Co.	1968	702	20 16 12	251 291 702	C-E	137	--	--	T,E,100	Irr	Casing slotted 98-702 feet; measured discharge 963 gal/min 6-74. <u>3/</u>
302	Joe Anderson	--	old	114	4	114	C	143	41.3	6-21-74	P,W	S	
303	Roy Kaechele	--	--	125	4	125	C	138	53.3	do.	P,W	S	<u>3/</u>
304	Louis Skar	--	1932	30	2	30	C	146	--	--	N	N	<u>3/</u>
401	Victor Corman	--	1910	45	6	45	C	153	21.1	3-24-55	N	N	<u>2/3/</u>
402	Bobby Marsalia	--	old	70	2	70	C	155	39.8	6-12-74	J,E,1/2	S	
403	Harry Anderson	L&N Drilling Co.	1969	103	4	103	C	155	34	2- 4-69	S,E	D	Casing slotted 91-103 feet.
501	Jack Reed	Jack Reed	1941	50	18	50	C	143	19.0	2-18-47	N	N	
502	do.	do.	1942	50	14	50	C	142	--	--	T,E, 7 1/2	N	
503	Clem Boettcher Estate	--	old	50	72 8	30 50	C	142	--	--	N	N	
504	do.	Crowell Drilling Co.	1953	178	12	178	C	142	34.8	3- 3-75	T,E,40	Irr	Casing slotted 74-178 feet. <u>2/</u>
505	G. E. Thomas	L&N Drilling Co.	1960	135	10	135	C	142	--	--	T,E,15	Irr,R	
506	Harry Anderson	Katy Drilling Co.	1972	662	20 12	360 662	C-E	147	71	12- -72	T,E,150	Irr	Casing slotted 197-662 feet; reported pumping level 172 feet after 6 hours at 3100 gal/min 12-72.
507	Clem Boettcher Estate	Crowell Drilling Co.	1969	758	20 16 12	300 342 758	E-C	141	--	--	T,E,150	Irr	Casing slotted 320-758 feet. <u>3/</u>
508	Jack Reed	Jack Reed	--	100	12	100	C	143	90.6	6-12-74	T,E,30	Irr	
601	do.	do.	1940	52	24	52	C	142	17.7 15.9	2-18-47 6-12-74	T,E, 7 1/2	Irr	Well reworked, 1964.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-31-602	Harry Anderson	Katy Drilling Co.	1966	801	20 12	295 801	E-C	147	85	3- 7-66	T,E,150	Irr	Casing slotted 205-801 feet; reported pumping level 169 feet after 4 hours at 3368 gal/min 3-7-66.
603	Frank Smaistria	Johnson & Johnson	1968	210	14	210	C	138	--	--	T,E,50	Irr	Casing slotted 70-210 feet; reported discharge 1600 gal/min 5-21-68.
604	John Reed	Katy Drilling Co.	1966	342	14	342	C	143	50	4-18-66	T,E,125	Irr	Casing slotted 137-342 feet; reported pumping level 142 feet after 6 hours at 2000 gal/min 4-18-66.
605	Gus Semkel	--	1925	110	2	110	C	133	--	--	N	N	<u>3/</u>
701	Tom Arlt	Johnson & Johnson	--	300	16 14	150 300	C	154	--	--	T,G,110	Irr	Casing slotted 90-300 feet; measured discharge 1389 gal/min 8-14-74. <u>1/3/</u>
702	Robert Cook	--	--	18	4	18	C	149	12.9 11.6	6-11-74 3- 4-75	N	N	
703	Dan Gertson	Crowell Drilling Co.	1968	540	18 16 12	256 410 540	C	146	--	--	T,E,150	Irr	Casing slotted 256-540 feet.
704	Jerry Clipson	Leonard Mickelson	1974	535	18 14	200 535	C	149	--	--	T,E,200	Irr	Casing slotted 140-162, 177-209, 219-377, 403-440, 456-471, and 487-535 feet.
801	Dan Gertson	O. T. Davis & Sons	1969	590	18	590	C	146	--	--	T,E,150	Irr	
802	--	--	--	84	4	84	C	141	73.1 43.0	6-12-74 3- 4-75	F,W	S	
901	J. F. Hough	Crowell Drilling Co.	1960	135	12	135	C	132	--	--	T,E,30	Irr	Casing slotted 100-135 feet. <u>3/</u>
902	Fred Fojtik	--	1929	52	60	52	C	132	20.0	3-14-60	N	N	Destroyed; originally cased with wooden casing; measured discharge 460 gal/min, 1947. <u>2/3/</u>
903	Raymond Jochetz	American Water Co.	1946	337	18 10	102 337	C	135	33.8	3- 3-75	T,E,100	Irr	Reworked; measured discharge 1202 gal/min, 1947. <u>2/3/</u>
904	Tennessee Gas Pipeline Co., station 17	Coastal Water Well Co.	1944	401	10 6	355 401	C	132	26 42 35	1944 11-14-56 2-25-60	S,E,15	Ind	Casing slotted 360-397 feet. <u>3/</u>
905	Tennessee Gas Pipeline Co., station #2	do.	1944	397	10	397	C	131	40	5-23-60	S,E,15	Ind	Casing slotted 343-397; reported pumping level 45 feet at 200 gal/min, 1944. <u>2/3/</u>
906	Tennessee Gas Pipeline Co., station #3	McMasters & Pomeroy	1952	1000	8 6	650 1000	E	131	30.2	5-27-60	S,E,15	Ind	Screened 860-897, 935-970, and 975-990 feet; measured discharge 145 gal/min 12-29-59. <u>1/3/4/</u>

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-31-907	Raymond Jochetz	American Water Co.	1946	194	18	194	C	131	51.6	6-12-74	T,E,100	Irr	Measured discharge 495 gal/min, 1947. <u>1/</u>
908	O. F. Chauvin	A. A. Wuensch	1957	169	12	169	C	126	--	--	T,E,10	Irr	
909	Mark Leveridge	do.	1957	242	12	242	C	120	14.1	3- 3-75	N	N	<u>2/</u>
910	J. A. Janis	do.	1957	192	12	192	C	121	56.3	6-26-74	T,G,30	Irr	
911	Mrs. M. J. Kucera	Crowell Drilling Co.	1954	201	12	201	C	119	59.5	do.	T,G,30	Irr	Casing slotted 101-201 feet.
912	Anderson Bros.	do.	1968	849	20 16 12	294 339 849	E-C	123	--	--	T,E,150	Irr	Casing slotted 294-849 feet. <u>4/</u>
32-101	Ronnie Lee	Leonard Mickelson	1956	204	14 12	106 204	C	138	43.7	6-21-74	T,G	R,S	Casing slotted 75-141, 153-171, and 177-202 feet; reportedly pumps 1500 gal/min, 1959. <u>2/</u>
103	Frank Prokop	- Sorbra	1905	60	18	60	C	133	39.3 38.9	do. 3- 4-75	P,E,3/4	S	<u>3/</u>
202	J. F. Somer	J. F. Somer	1924	107	2	107	C	124	35 40	1925 3- -74	P,W	D	Casing slotted 103-107 feet.
401	John F. Browder	American Water Co.	1958	299	12	299	C	131	--	--	T,E,50	Irr	Measured temperature 23°C 6-27-74.
402	August E. Michulka	do.	1957	222	12	222	C	127	33.6	3- 3-75	T,G,30	Irr	<u>2/</u>
403	Ignac Marik	Katy Drilling Co.	1968	527	14	527	C-E	127	40	2- 8-68	N	N	Casing slotted 110-530 feet; well destroyed. Reported pumping level 109 feet after 7 hours at 2000 gal/min 2-68.
404	do.	do.	1969	532	14	530	C-E	127	55 57.4	4-11-69 6-24-74	T,E,30	Irr	Casing slotted 150-532 feet; reported pumping level 139 feet after 3 hours at 1809 gal/min.
405	Raymond David	Edward Janik	1970	110	3	110	C	131	32	9-19-70	J,E	D	Screened 104-110 feet. <u>3/</u>
406	P. Roberts	Crowell Drilling Co.	1964	208	12	208	C	127	--	--	T,G,50	R,S	Casing slotted 120-208 feet.
407	Vencil Prazak	J. F. Somer	1973	101	4	101	C	128	42	12- -73	S,E,3	D	
501	Doris Leveridge	--	--	42	2	42	C	121	34.6	6-24-74	N	N	
502	Jay Anderson	Crowell Drilling Co.	1967	247	6 4	200 247	C	119	--	--	S,E	F	Casing slotted 200-247 feet. <u>3/</u>
701	Mrs. Nobel C. Means	American Water Co.	1957	190	12	190	C	124	--	--	N	N	
702	Ray Vacek	- Dunn	1959	182	12	182	C	119	24 49.8	2- -60 6-24-74	T,G,30	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
EA-66-32-703	Mrs. Henry Seydler	American Water Co.	1956	288	12	288	C	122	--	--	T,G	Irr	Casing slotted 151-288 feet.
704	Mrs. Wm. E. Duncan	do.	1957	193	12	193	C	121	27.2 49.1	3-30-60 6-26-74	T,G,50	Irr	Casing slotted 112-193 feet; reported discharge 1300 gal/min 3-60.
705	Joe E. Vacek	--	old	65	24	65	C	124	11.0	6-24-74	T	N	2/
706	do.	--	1912	65	24	65	C	123	7.7	do.	T	N	2/
707	do.	--	old	63	7	63	C	121	9.7	do.	C,G	Irr	
708	do.	Joe Sluber	1903	68	8	68	C	122	17.4	2-16-34	N	N	Well destroyed. 3/
801	Billy Hlavinka	American Water Co.	1956	204	12	204	C	123	--	--	N	N	4/
802	City of East Bernard #1	Layne-Texas Co.	1951	381	10 4	208 381	C	119	39 47.1	2-14-51 6-20-74	T,E, 7 1/2	P	Screened 319-339 and 349-369 feet; reported pumping level 74 feet after 24 hours at 150 gal/min 2-51.
803	City of East Bernard #2	do.	1959	283	10 8	125 283	C	119	44 44.4	3-10-59 6-20-74	T,E,10	F	Screened 210-230 and 240-280 feet; reported pumping level 62 feet after 8 hours at 302 gal/min 3-59. 3/
804	Dr. J. Dan Schuhmann	American Water Co.	1956	292	12	292	C	121	39.7	3- 5-74	T,G,30	Irr	Casing slotted 157-292 feet; may become supplementary water supply for East Bernard. 2/
806	G. H. Melik	Edward Janik	1950	117	2	117	C	118	20	10- -50	J,E,1/2	D	
912	Lawrence Henry	Leon Mahler	1972+	200	2	200	C	116	40+	1972	J,E,3/4	D	Casing slotted 195-200 feet.
37-901	Lester Krenek	Crowell Drilling Co.	1953	131	13	131	C	153	38.2	4- 5-71	T,E,50	Irr	Casing slotted 52-131 feet. 2/3/
902	Ed Hoffman	Walter Garrett	1956	91	12	91	C	150	--	--	T,G,50	Irr	Casing slotted 34-91 feet.
903	Leonard Staff	Arkee Drilling Co.	1955	120	10	120	C	149	--	--	T,G,30	R	Casing slotted 50-110 feet.
38-201	J. J. Pendergrass	--	1948	408	4	408	C	150	34.2	3- 4-75	N	N	2/3/
202	do.	--	old	65	24 6	-- 65	C	150	28.4	do.	J,E,1/2	D	2/3/
204	G. P. Chew	Katy Drilling Co.	1968	561	20 12	364 561	C	155	37.6 43.0	12-18-73 6-18-74	T,G,200	Irr	Casing slotted 185-561 feet; reported pumping level 195 feet after 1-1/2 hours at 3065 gal/min 12-68.
205	Leon Locke	--	1950	175	12 6	-- 175	C	144	21.0	6-14-74	T	N	
206	M. Northington	General Crude Oil Co.	1966	3925	--	--	--	155	--	--	--	N	Oil test included in cross section. 4/

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-38-301	Lakeside Irr. #1	Katy Drilling Co.	1959	288	12	288	C	154	39.1	3- 4-75	T,G	Irr	Casing slotted 100-278 feet; reported pumping level 125 feet at 1548 gal/min 8-59. <u>2/</u>
302	Lakeside Irr. #8	do.	1973	694	20 12	396 694	C	157	53.8	12-18-73	T,E,250	Irr	Casing slotted 236-694 feet; reported pumping level 240 feet after 6 hours at 3900 gal/min 3-73. <u>3/4/</u>
303	Lakeside Irr. #3	do.	1967	655	20 12	360 655	C	159	72	11- 9-67	T,E,150	Irr	Casing slotted 223-655 feet; reported pumping level 131 feet after 3 hours at 2650 gal/min.
304	Al Mortensen	Leonard Mickelson	1956	113	12	113	C	150	33.7	3- 4-75	T,E,15	D,Irr	Casing slotted 87-112 feet. <u>2/</u>
305	--	--	--	81	4	81	C	151	41.2	6-18-74	P,W	S	
306	--	--	--	--	5	--	C	153	45.5	8-21-74	P,W	S	
501	Joe Mahalitic	--	1943	208	4	208	C	142	20.0	2-10-68	N	N	<u>2/</u>
502	Carl Reynolds	L&N Drilling Co.	1966	255	4	255	C	134	27 25.6	6- -66 6-13-74	S,E,1	D,S	Casing slotted 234-255 feet.
503	King Estate	--	--	50	--	50	C	131	--	--	--	N	
504	Donald Mahalitic	L&N Drilling Co.	1972	208	4	208	C	142	24	2- 7-72	--	D,S	Casing slotted 194-208 feet.
602	Hayne Dromgoole	Beseda Water Wells	1947	100	2	100	C	149	30.8	6-26-74	N	N	
603	Arthur Anderson	Katy Drilling Co.	1969	861	20 12	401 861	C-E	137	65	5- 8-69	T,E,250	Irr	Casing slotted 231-861 feet; reported pumping level 225 feet after 23 hours at 3389 gal/min 5-69. <u>1/3/</u>
604	Hayne Dromgoole	L&N Drilling Co.	1968	108	4	108	C	156	49	4- -68	S,E,1/2	D,S	Casing slotted 96-108 feet.
605	Willis Blackwell	--	old	40	2	40	C	145	--	--	N	N	<u>3/</u>
701	Mrs. Walter Braden	--	1948	190	--	190	C	149	40.3 39.1	12-22-59 6-25-74	T,G,70	Irr	Casing slotted 90-190 feet.
702	Joe A. Wilson	Otto Mickelson	1940	116	18 16	60 116	C	147	--	--	T,E	Irr	Casing slotted 60-80 and 82-116 feet; measured discharge 2253 gal/min 8-8-74. <u>3/</u>
703	Pryor Estate	Katy Drilling Co.	1973	258	14	258	C	145	50	7- -73	T,E,60	Irr	Casing slotted 97-258 feet; pumping level 99 feet with 1994 gal/min discharge after 12 hours.
704	South Texas Girl Scout Camp	Crowell Drilling Co.	1970	116	4	114	C	140	25	6-24-70	S,R	D	Casing slotted 104-114 feet.
801	J. W. Oberhaus	Leonard Mickelson	1956	116	12	116	C	125	23.8	3- 5-74	N	N	Casing slotted 61-77 and 85-115 feet; measured discharge 860 gal/min 6-22-68. <u>2/3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-38-802	Carl Reynolds	Beeeda Water Wells	1964	40	3	40	C	127	10	1964	J,E	S	
803	Ben Woodruff	Johnson Water Well Service	1956	69	4	69	C	142	39.8	6-25-74	J,E, 1 1/2	D	
804	do.	--	1920	54	6	54	C	142	40.6	do.	P,W	S	
902	Heyne Bros.	J. G. Mathis	1956	100	--	100	C	131	25.4	6-13-74	T,G,20	Irr	
903	- Obenhaus	--	1965	66	4	66	C	131	24.1	do.	J,E,1/2	S	
904	Clarence Gordon	Johnson Water Well Service	1972	70	2	70	C	124	--	--	J,E,1/2	D,S	
39-101	Lakeside Irr. #2	Katy Drilling Co.	1966	479	20 12	318 479	C	146	76 46.1 42.5	9-10-66 12-18-73 3- 4-75	T,E,150	Irr	Casing slotted 217-479 feet; reported pumping level 197 feet after 2 hours at 2343 gal/min 9-66. <u>3/4</u>
102	Dan Gertson	O. T. Davis & Sons	1967	175	20	175	C	146	--	--	T,E,75	Irr	Casing slotted 80-175 feet.
103	do.	--	--	35	6	35	C	146	27.3	6-12-74	P,W	N	
104	David Wintermann	Bland Water System	1963	131	4	131	C	141	41	10-18-63	P,W	S	Casing slotted 125-131 feet.
105	Dan Gertson(?)	--	--	110	12	110	C	147	35.4	8-21-74	T	N	
202	Morrison & Ansley	Crowell Drilling Co.	1967	481	16 12	200 481	C	129	--	--	T,G,90	Irr	Casing slotted 106-481 feet. <u>3/4</u>
203	C. Locke	--	1966	40	4	40	C	131	24.2	6-20-74	P,W	S	
204	J. L. Adkins	Katy Drilling Co.	1968	559	20 12	359 559	C	135	57	4-19-68	T,E,150	Irr	Casing slotted 193-559 feet; reported pumping level 108 feet after 3 hours at 2513 gal/min 8-68. <u>3/</u>
205	T. L. Davidson	do.	1968	566	20 12	206 566	C	136	68	12- 2-68	T,E,150	Irr	Casing slotted 274-566 feet; reported pumping level 195 feet after 3 hours at 3160 gal/min 12-68.
301	Getty Oil Co.	Layne-Texas Co.	1952	400	6 4	334 400	C	136	35 40	11-18-52 4-30-74	T,E, 7 1/2	Ind	Casing slotted 346-354 and 356-376 feet; reported pumping level 93 feet after 6-1/2 hours at 75 gal/min 10-52.
302	W. A. Ansley	--	--	200	2	200	C	121	20	1970	P,W	S	
401	R. W. Milner	--	--	32	3	32	C	132	29.8 26.3	6-13-74 3- 4-75	P,W	S	<u>3/</u>
402	--	--	old	63	4	63	C	136	43.5	6-18-74	P,W	S	
501	F. B. Duncan	--	--	40	4	40	C	126	35.2 30.7	6-13-74 3- 4-75	P,W	S	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Casing			Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
				Depth of well (ft.)	Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-56-39-601	Mrs. W. A. Worthington	Leonard Mickelson	1956	337	18 12	153 337	C	112	22.8	3-31-60	N	N	Casing slotted 145-173, 183-211, 214-221, 241-303, and 309-336 feet. <u>1/</u>
701	Carl Reynolds	do.	1956	214	12	214	C	117	23.1	3- 5-75	T,G,50	Irr	Casing slotted 100-120 and 152-212 feet; measured discharge 1110 gal/min 7-58. <u>2/3/</u>
702	John Northington	do.	1967	176	12	176	C	125	27.8	6-18-74	T,E,30	Irr	Casing slotted 89-122, 125-139, and 146-175 feet.
703	do.	Guttenberger Well Service	1967	172	4	172	C	125	37	2- -67	S,E	D	
704	do.	do.	1940	160	4	160	C	124	36.8	6-18-74	S,E,1	D	
801	Texas Oil & Gas Co.	--	1948	300	4	300	C	115	31.7	3- 4-75	N	N	<u>2/</u>
802	W. A. Harrison	--	old	20	24	20	C	117	14.8	3-24-50	N	N	Destroyed; originally dug well curbed with brick. <u>2/3/</u>
803	Mrs. Della Mae Kurtz	A. A. Wuensch	1957	194	12	194	C	120	34.4	6-18-74	T,G,50	Irr	
804	Duncan Bros.	O. T. Davis & Sons	1974	--	12	--	C	122	50.9	6-20-74	T,G,100	Irr	
805	do.	--	--	60	4	60	C	124	49.4	6-19-74	P,W	S	
806	W. Carl Hinze #1	Houston Oil Co.	1939	3060	--	--	--	107	--	--	--	N	Oil test included in cross section. <u>4/</u>
902	Natural Gas Pipeline Co. #1	Layne-Texas Co.	1952	306	10 6	164 306	C	113	27 26	3- 1-52 6- 4-74	T,E,10	Ind	Casing slotted 234-249 and 270-294 feet; reported pumping level 41 feet after 8 hours at 167 gal/min 3-52.
903	Natural Gas Pipeline Co. #2	do.	1952	304	10 6	165 304	C	113	28 35	3- -52 6- 4-74	T,E,10	Ind	Casing slotted 224-249 and 270-294 feet; reported pumping level 42 feet after 8 hours at 154 gal/min 3-52.
905	R. L. Clipson	Katy Drilling Co.	1968	716	20 12	363 716	C	117	73	12- 2-68	T,E,150	Irr	Casing slotted 260-716 feet; reported pumping level 136 feet after 2 hours at 3575 gal/min 12-68.
906	--	--	--	156	4	156	C	116	49.5 36.9	6-19-74 3- 4-75	A	N	
907	Meyers Unit	B&P Drilling Contractors	1962	246	4	246	C	117	--	--	A	N	Casing slotted 226-246 feet; reported discharge 300 gal/min by airlift 8-62.
908	Joe Macha	Beseda Water Well Service	1964+	170	2	170	C	106	50	8- -74	J,E	D	<u>3/</u>
40-101	W. J. Kramr	American Water Co.	1958	325	12	325	C	118	--	--	T,G,70	Irr	
102	E. P. Kramr	do.	1956	275	12	275	C	121	--	--	T,G,50	Irr	Casing slotted 138-230 and 250-275 feet; reported discharge 990 gal/min 7-58.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-40-103	Frank C. Hlavinka	Leonard Mickelson	1957	235	12	235	C	119	64.6 34.2	7-11-74 3- 4-75	T,G,50	Irr	Casing slotted 63-85, 137-212, and 215-235 feet.
104	Jay Anderson	--	--	21	12	21	C	119	18.5	6-26-74	J,E,1/2	N	Dug well, curbed with concrete.
105	do.	Crowell Drilling Co.	1968	560	20 16 12	299 339 560	C	119	--	--	T,E,150	Irr	Casing slotted 182-560 feet. <u>3/4/</u>
202	John F. Browder	American Water Co.	1958	265	12	265	C	118	41.8	3- 5-74	T,G,50	Irr	<u>2/3/</u>
203	Leonard Priesler	do.	1957	292	12	292	C	112	51.7	7-22-74	T,G,70	Irr	
204	do.	do.	1956	292	12	292	C	112	--	--	T,G,70	Irr	
205	Joe Talas	do.	1957	286	12	286	C	113	--	--	T,G,50	Irr	
401	Dink Bishop Estate	Crowell Drilling Co.	1958	488	10	488	C	110	28.2 32.6	4-24-60 3- 3-75	T,G,110	Irr	Measured discharge 2040 gal/min 5-25-60; test hole drilled to 547 feet. <u>2/3/</u>
402	--	--	--	24	2	24	C	113	21.5	7-22-74	N	N	
501	J. D. Hudgins	Marion Mahler	--	126	4	126	C	112	--	--	N	N	Destroyed.
502	Fred Klasel	American Water Co.	1960	325	12	325	C	104	49.5	7-11-74	T,G,30	Irr	Measured discharge 510 gal/min 6-22-60. <u>3/</u>
503	Krenek Bros.	Crowell Drilling Co.	1957	150	12	150	C	106	31.8 31.0	do. 3- 4-75	T,G,30	Irr	Casing slotted 75-150 feet.
504	Ted Mangum	--	1896	33	18	33	C	105	22.2	4-27-51	N	N	Dug well presently covered over. <u>2/3/</u>
604	Frank Maly	Aubrey Johse	1965	--	8	--	C	99	42.1	8-15-74	S,E	Irr	
605	--	--	--	14	2	14	C	97	+1	do.	N	N	Sandpoint or screen is probably clogged.
701	Joe Macha	--	--	60	2	60	C	108	--	--	J,E	D	<u>3/</u>
801	David Mahalitic	Katy Drilling Co.	1953	532	20 12	200 532	C	103	--	--	T,E,75	Irr	Casing slotted 140-532 feet; measured discharge 1960 gal/min 5-25-60. <u>3/</u>
802	St. John Catholic Church	Beseda Water Well Service	1968	213	4	213	C	105	48	7- 9-68	S,E	D	Casing slotted 205-213 feet.
901	R. H. Vineyard, Jr.	Crowell Drilling Co.	1959	199	18 12	116 199	C	99	32.0	7-22-74	T,G,70	Irr	Casing slotted 116-199 feet.
902	do.	O. T. Davis' & Sons	1956	94	8	94	C	98	26.2	3- 3-75	T	N	Casing slotted 54-94 feet. <u>2/</u>
903	--	--	--	28	4	28	C	91	18.3	7-23-74	P,W	S	
904	L. V. Hlavinka	Guttenberger Well Service	1968	212	5	212	C	94	24.8	do.	S,E	Irr	Casing slotted 197-212 feet. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-40-905	Hugh Hawes	Crowell Drilling Co.	1963	127	13	127	C	95	24.1	8-15-74	S,E	R	Casing slotted 80-127 feet.
44-604	J. C. Henderson	Henry Cleveland	--	690	24	164 690	C-E	142	57.6	6-25-74	T,G,110	Irr	
605	J. P. Henderson	--	1974	220	4	220	C	134	54.8	do.	A	Ind	Furnished water used while drilling oil test.
606	J. Bruce Hancock	--	--	66	4	66	C	134	51.9	do.	N	N	
703	Dan Gillean	Henry Cleveland	1946	600	20 12	160 600	C	136	95.4	10-25-59	T,G,150	Irr	Called Texas West Indies #6 on old records
801	J. Bruce Hancock	American Water Co.	1946	370	20 12	370	C	133	48.5 57.1	10-26-59 1-17-74	N	N	Called Texas West Indies #1 on old records
802	do.	Otto Mickelson	1945	104	24	104	C	132	63.9	1-18-74	N	N	Called Texas West Indies #8 on old records; slotted 44-104 feet. Measured discharge 320 gal/min, 1947.
803	E. G. Goff	Crowell Drilling Co.	1958	363	16 12 10	201 334 363	C	128	--	--	N	N	Casing slotted 114-190 and 225-362 feet.
804	Texas West Indies #9	Otto Mickelson	1928	175	24 12	90 175	C	127	39.1 55.0 71.8	5- 7-40 10-26-59 1-17-74	N	N	Casing slotted 68-175 feet.
805	Texas West Indies #10	do.	1928	155	18 12	90 155	C	126	37.0 49.4	5-27-40 3-26-58	T,G,110	Irr	Casing slotted 90-155 feet. <u>2/3/</u>
806	Texas West Indies #1B	Crowell Drilling Co.	1966	1000	20 16 12	300 317 1000	E-C	133	--	--	T,G	Irr	Casing slotted 305-358, 480-500, 523-600, 620-660, 720-750, 770-820, and 848-990 feet. <u>4/</u>
807	E. G. Goff	Katy Drilling Co.	1962	940	20 12	326 940	E	128	111.4	1-17-74	T,G,200	Irr	Casing slotted 717-940 feet; pumping water level 155 feet with 3334 gal/min discharge.
808	do.	do.	1968	1224	20 12	419 1224	E-C-B	128	132 99.8	2- 8-68 3- 7-75	T,G,425	Irr	Casing slotted 301-1224 feet; reported pumping level 246 feet after 5 hours at 3046 gal/min 2-68. <u>3/</u>
901	V. Doyle	Crowell Drilling Co.	1948	300	--	300	C	129	60.1 58.5	6-25-74 3- 5-75	T,G,72	Irr	
902	do.	Fraytor Drilling	1974	190	4	190	C	119	54.1	6-25-74	P,W	S	
903	do.	--	--	66	2	66	C	119	52.6	do.	N	N	
45-201	Joseph Korenek	Henry Cleveland	1953	257	18 12	193 257	C	152	55.9 55.8	7-22-55 3- 4-75	T,G,150	Irr	Casing slotted 0-257 feet; measured discharge 1650 gal/min 7-21-55. <u>2/3/4/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-45-202	Lee Glass	Leonard Mickelson	1958	157	18 12	98 157	C	146	--	--	T,G,70	Irr	Casing slotted 75-155 feet.
204	Knude Fredrickson	Otto Mickelson	1940	97	18 16	75 97	C	146	51.3	5-22-74	T,G,80	Irr	Casing slotted 55-97 feet.
205	Charles Kallina	Leonard Mickelson	1950	201	18 12	109 201	C	141	--	--	T,G	Irr	Casing slotted from about 70 feet to total depth.
207	do.	Pat Smith	1926	146	20 12	60 146	C	142	52.8	5-22-74	N	N	Casing slotted 60-146 feet. <u>3/</u>
208	do.	Leonard Mickelson	1958	157	18 12	98 157	C	142	--	--	T,G	Irr	Casing slotted 75-155 feet.
301	Ross Covey	do.	1954	432	20 16 14 12	151 211 337 432	C	149	--	--	T,G,110	Irr	Casing slotted 100-430 feet.
302	Jim Safar	J. R. Safar	1947	78	12	78	C	148	50	1974	T,E	Irr	Casing slotted 63-78 feet.
303	C. P. Hajovsky	Crowell Drilling Co.	1950	147	12	147	C	147	51.9	5-23-74	T,G,50	Irr	Casing slotted 79-147 feet; measured discharge 833 gal/min 8-19-74. <u>3/</u>
304	Emil Popp	Charles Payne	1958 <sup>4</sup>	--	12	--	C	148	--	--	T,G,55	Irr	Pump set at 90 feet.
306	Edwin Zboril	Charley Mickelson	1915	200	24 9	-- 200	C	144	39.4	5-31-40	T,G,50	Irr	
307	Irving Wittig	Crowell Drilling Co.	1953	527	20 12 10	122 433 527	C	148	--	--	T,G,50	Irr	Casing slotted 90-527 feet.
308	Richard Koronck	do.	1970	268	20	268	C	146	47.7	5-23-74	T,G	Irr	Casing slotted 73-268 feet.
309	Russell Raun #2	Otto Mickelson	1940	166	24	166	C	144	--	--	T,G,150	Irr	Screened 101-165 feet; measured discharge 2295 gal/min, 1947.
310	Joe F. Staff	Leonard Mickelson	1962	131	14	131	C	151	--	--	T,G,50	Irr	Measured discharge 785 gal/min 7-29-74.
311	Victor Jurasek	Crowell Drilling Co.	1953	116	16 12	74 116	C	151	--	--	T,E,30	Irr	Casing slotted 50-116 feet.
312	C. P. Hajovsky	do.	1951	147	12	147	C	143	52.2 49.2	5-23-74 3- 5-75	N	Irr	Casing slotted 79-147 feet; well used every other year.
313	Jim Safar	Leonard Mickelson	1963	113	12	113	C	148	50	7- -74	T,E,	Irr	Casing slotted 77-112 feet.
314	Ross Covey	do.	1947	210	18 12	153 210	C	150	46.7	9-26-74	N	N	

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-45-401	J. P. Henderson	Henry Cleveland	1954	--	18	--	C	132	45.3 48.4	3-22-65 5-24-74	T,G,110	Irr	
402	Lee Glass	O. T. Davis	1964+	100	--	100	C	128	15.5	do.	T,G,52	Irr	Pump set at 85 feet. <u>2/3/</u>
403	Dr. Waugh	Pat Smith	1926	108	18 12	50 108	C	128	31.4 49.3	6- 1-40 3- 5-75	N	N	Screened 50-108 feet; measured discharge 1180 gal/min 6-1-40. <u>2/</u>
502	Russell Raun #5	Leonard Mickelson	1956	574	20 16 12	257 407 574	C	142	--	--	T,G,150	Irr	Casing slotted 100-574 feet; measured discharge 2242 gal/min 8-19-74. <u>3/</u>
503	Henry Zboril	do.	1956	349	20 18 12	59 209 349	C	131	--	--	T,G,110	Irr	Casing slotted 86-348 feet.
504	B. T. Clark	- Stancliff	1909	125	24 9	50 125	C	131	--	--	N	N	Destroyed. <u>3/</u>
505	Ernest Wenglar	--	--	--	14	--	C	136	--	--	T,G	Irr	
506	Jess Henderson	Leonard Mickelson	1966	470	18 12	250 470	C	131	--	--	T,G,225	Irr	Casing slotted 140-260, 272-296, 302-323, 328-390, and 405-468 feet. Measured discharge 632 gal/min 8-13-74. <u>3/</u>
601	Russell Raun #4	do.	1949	429	20 18 12	123 262 429	C	143	53.2 56.3 57.0	3-22-65 2- 9-67 2-10-68	T,G,110	Irr	Pump set at 160 feet. <u>3/</u>
602	Ted Hajovsky	do.	1965	209	12	209	C	141	--	--	T,E	Irr	Casing slotted 71-91, 94-136, and 139-207 feet.
603	Russell Raun #1	Charley Mickelson	1935	275	18 12 10	74 260 275	C	138	42	5-28-40	T,G,150	Irr	Pump set at 130 feet; measured discharge 2100 gal/min 7-23-40. <u>3/</u>
604	Will Hicks	Leonard Mickelson	1950	240	16	240	C	135	--	--	T,G	Irr	Casing slotted 77-126 and 130-239 feet.
605	George Raun	Otto Mickelson	1919	285	24 12	68 285	C	134	37 33.6 26.8	2- -34 5-23-74 3- 5-75	T,G	Irr	Screened 68-285 feet. <u>3/</u>
606	Jack Gleze	Crowell Drilling Co.	1952	185	12	185	C	132	--	--	T,G,70	Irr	Casing slotted 96-185 feet.
608	Henry Zboril	Katy Drilling Co.	1969	629	20 12	361 629	C	143	86	10-27-69	T,G,150	Irr	Casing slotted 117-629 feet; reported pumping level 197 feet after 4 hours at 4120 gal/min 10-69. <u>1/</u>
609	Russell Raun #6	Crowell Drilling Co.	1973	835	20 16 12	299 465 835	C-E	138	--	--	T,G,250	Irr	Casing slotted 120-510 and 580-812 feet; measured discharge 3936 gal/min 8-19-74. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-45-610	--	--	--	44	6	44	C	133	42.5	5-23-74	P,W	N	
611	Russell Kauu	Crowell Drilling Co.	1952	--	--	--	C	132	--	--	S,E	D	Originally used for irrigation.
702	Jay E. Bridges	do.	1951	190	20 16	114 190	C	120	--	--	T,C,70	Irr	Casing slotted 63-190 feet.
703	Pat Smidt	do.	1958	363	16 12 10	201 334 363	C	127	--	--	T,C,70	Irr	Pump set at 80 feet; casing slotted 218-363 feet.
704	Jay E. Bridges	do.	1973	315	16	315	C	115	--	--	T,E,70	Irr	Casing slotted 111-315 feet; measured discharge 1718 gal/min 8-20-74. <u>3/</u>
705	do.	--	--	30	2	30	C	115	--	--	P,H	D	<u>3/</u>
801	Russell Raun	Otto Mickelson	1942	140	12	140	C	129	--	--	T,C,70	Irr	
802	L. A. Carriere	Crowell Drilling Co.	1958	188	16	188	C	126	48.3 66.7	1-22-60 3- 6-75	T,G,70	Irr	Casing slotted 60-188 feet. <u>2/3/</u>
803	Robert Meek	Otto Mickelson	1928	255	24 12	68 255	C	123	61.7	4-17-74	T,G,70	Irr	Screened 73-133, 143-203, 215-235, and 245-255 feet.
804	do.	Leonard Mickelson	1951	368	18 12	153 368	C	123	57.7 46.0	7-11-55 3- 9-60	T,G,110	Irr	Casing slotted 110-368 feet; measured pumping level 93.8 feet at 1675 gal/min. 7-11-55. <u>2/3/</u>
805	Robert Rasmussen	M. Layne	1919	311	26 12	68 311	C	117	36.1	5-27-40	T,G,70	Irr	Pump set at 160 feet; measured discharge 1095 gal/min 8-8-40.
806	do	Leonard Mickelson	1962	498	18 16 13 10	135 340 472 498	C	117	--	--	T,G	Irr	Casing slotted 125-498 feet.
807	do.	do.	1973	682	18	682	C-E	117	--	--	T,G,150	Irr	Casing slotted 132-177, 187-212, 217-276, 282-329, 344-434, 466-527, 533-548, 558-564, 579-586, and 627-679 feet.
808	Robert Meek	K. H. Payne	1926	280	24 12	60 280	C	122	46.5	4-17-74	T,G,50	Irr	<u>3/</u>
901	L. A. Carriere	Otto Mickelson	1949	185	24 16	75 185	C	127	--	--	T,G,90	Irr	Casing slotted 75-85 and 95-185 feet.
902	Milton Kainer	Walter Garrett, Jr.	1956	160	12	160	C	132	77.1	5-23-74	N	N	
903	L. A. Carriere	Charley Mickelson	1913	190	24 9	55 190	C	127	--	--	T	N	Unused for several years. <u>3/</u>
904	Jim Holt	Otto Mickelson	1948	203	16	203	C	122	--	--	T,G,125	Irr	Casing slotted 83-113 and 133-203 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-45-905	Dr. Tidgeon	Thomas & Payne	1918	200	24 10	50 200	C	118	--	--	T,G,50	Irr	Screened 100-200 feet.
906	C. Swanson	- Stancliff	1909	150	24 9	50 150	C	121	38.0 33.1 76.2	6- 3-40 3-14-47 6-13-74	N	N	
907	Glen Johnson	Crowell Drilling Co.	1958	223	12	223	C	119	75.6	do.	T,G,70	Irr	Casing slotted 85-222 feet.
908	C. R. Hicks	Layne-Bowler	1910	254	24 11	50 254	C	117	25.6 30.3 76.3	6- 1-40 3-14-47 6-13-74	N	N	Screened 78-223 and 238-254 feet.
909	Melvin Rasmussen	Crowell Drilling Co.	1973	250	14	250	C	114	--	--	T,G,52	Irr	Casing slotted 130-240 feet.
910	do.	John Mickelson	1909	200	24 10	-- 200	C	114	33.5 49.2	5-31-40 5-22-74	N	N	Casing may be partly collapsed.
911	Jim Holt	Leonard Mickelson	1968	407	16 14	247 407	C	119	--	--	T,G,125	Irr	Casing slotted 163-238 and 245-403 feet.
912	Jack Glaze	Otto Mickelson	1948	200	16	200	C	128	--	--	T,G,70	Irr	Casing slotted 100-200 feet.
913	Harold Bishkin	Crowell Drilling Co.	1966	252	14	252	C	117	76.9	6-13-74	T,G,50	Irr	Casing slotted 128-252 feet.
914	Edwin Gangle	Pat Smith	1918	170	24 10	60 170	C	129	34.4 41.2	2-21-47 6-13-74	N	N	Casing slotted 60-160 feet.
915	L. A. Nitsch	Crowell Drilling Co.	1961	302	16 12	128 302	C	130	--	--	T,G,50	Irr	Casing slotted 136-300 feet.
46-102	Leo Schoenfield	do.	1951	110	12	110	C	147	47	1974	T,G,110	Irr	Casing slotted 60-110 feet.
103	Victor Jurasek	do.	1949	98	12	98	C	143	46.3	5-28-74	N	N	Casing slotted 50-98 feet.
104	Naiser Bros.	Otto Mickelson	1949	173	18 12	85 173	C	141	--	--	T,G	Irr	Casing slotted 85-173 feet.
105	Clarence Frels	Crowell Drilling Co.	1965	126	12	126	C	143	42.3	5-30-74	T,E	R	Casing slotted 60-126 feet.
106	Lawrence Treybig	Leonard Mickelson	1971	181	14	181	C	143	40	4- -71	T,E	Irr	Casing slotted 101-117 and 122-181 feet.
201	Tif Woodruff	D&M Drilling Co.	1956	200	12	200	C	144	45.6	3- 4-75	T,G	Irr	Casing slotted 75-200 feet. <u>2/</u>
202	George Wilson	Otto Mickelson	1940	243	20 16 12	73 120 243	C	143	--	--	T,G,150	Irr	Casing slotted 58-243 feet; reported pumping level 90 feet after 10 hours at 1700 gal/min. <u>3/</u>
203	Fryor Ranch	Leonard Mickelson	1953	251	20 12	150 251	C	138	--	--	T,G,100	Irr	Casing slotted 100-251 feet. <u>1/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-46-206	Fryor Ranch	Katy Drilling Co.	1972	187	14	187	C	138	50	4-3-70	T,G,70	Irr	Casing slotted 67-187 feet; reported pumping level 90 feet after 10 hours at 1700 gal/min 4-3-70.
301	Ilse Ranch	Otto Mickelson	1926	221	24 12	69 221	C	139	36.8	2-18-47	T,C	Irr	Screened 106-135 and 161-221 feet. <u>3/</u>
302	do.	do.	1926	243	24 12	64 243	C	135	51.8	5-28-74	N	N	Screened 107-137 and 183-243 feet. <u>3/</u>
303	Mrs. W. A. Worthington	--	--	80	4	80	C	121	27.0	6-26-74	P,E	S	
401	R. J. Naiser	Bay City Drilling Co.	1951	150	12	150	C	134	66.1	5-28-74	T,E,60	Irr	
402	J. K. Allen	Leonard Mickelson	1954	366	20 16 14 12	125 147 324 366	C	134	65.1 56.2	7- 2-55 3- 4-75	T,G,110	Irr	Casing slotted 100-366 feet; measured discharge 3100 gal/min 7-12-55. <u>2/3/</u>
403	Henry Zboril	do.	1954	293	20 14	135 293	C	134	79.5	5-30-74	N	N	Casing slotted 85-276 feet.
404	C. E. Larson	Crowell Drilling Co.	1951	164	13 10	104 164	C	134	--	--	T,E	Irr	Casing slotted 58-164 feet.
405	Walter Braden	--	--	--	--	--	C	140	56.3 54.9	5-29-74 3- 5-75	N	N	Pump at 90 feet, well used every other year(?).
406	Frank Zboril	Leonard Mickelson	1971	209	12	209	C	130	--	--	T,E,45	Irr	Casing slotted 100-207 feet.
501	Susie & Will Jones	Crowell Drilling Co.	1957	225	12	225	C	129	47.7	5-29-74	T	Irr	Casing slotted 100-160,164-176, 185-213, and 215-240 feet; reported discharge 1200 gal/min 2-3-57.
502	Pete Fucik	Arkee Drilling Co.	1956	140	10	140	C	133	48	1956	T,G	Irr	Reported discharge 600 gal/min, 1969.
503	P. J. Merta	Otto Mickelson	1946	168	12 10	128 168	C	137	39.7	2-17-47	T,B,60	Irr	Casing slotted 60-80 and 103-168 feet; measured discharge 1062 gal/min, 1947.
504	Fritz Schoeman	do.	1945	162	24 12	60 162	C	133	38	do.	T,G,72	Irr	Casing slotted 60-87 and 116-161 feet; measured discharge 1633 gal/min, 1947.
505	Naiser Bros.	do.	1946	167	24 12	60 167	C	134	38.0	do.	T,G,72	Irr	Casing slotted 60-82 and 122-168 feet; measured discharge 1593 gal/min, 1947.
506	E. L. Frels	Crowell Drilling Co.	1956	222	12	222	C	128	--	--	T,G,50	Irr	Casing slotted 80-222 feet; reported discharge 1600 gal/min, 1959.
507	Fred Krpec	- Pederic	1954 <sup>+</sup>	167	14	167	C	131	50	5- -74	T,G,56	Irr	Casing slotted 85 feet to bottom?
508	Isle Ranch	O. T. Davis & Sons	1970	200	20 --	-- 200	C	136	--	--	T,G	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-46-509	George Fucik	Leonard Mickelson	1963	166	13	166	C	129	--	--	T,E,40	Irr	Casing slotted 106-163 feet.
510	I. C. Wendel	do.	1971	168	12	168	C	130	50 51.0	8- -71 2-29-74	T,G,50	Irr	Casing slotted 92-166 feet.
511	Frank Bamruk	Layne Bowler Co.	1908	138	24 9	50 138	C	127	--	--	S,E,1/2	D	Screened 55-99 and 105-135 feet; originally used for irrigation. <u>3/</u>
601	Dr. Outlar	Leonard Mickelson	1953	186	18 12	127 186	C	131	41.9 46.7	2- 5-60 3- 4-75	T,G	Irr	Casing slotted 77-186 feet; measured discharge 3590 gal/min 5-25-60. <u>2/3/</u>
602	do.	Beseda Water Well Service	1956	91	6	91	C	127	41.5	5-28-74	T,E	Irr	Casing slotted 71-91 feet.
604	Kon Franke	Crowell Drilling Co.	1958	212	16	212	C	125	--	--	T,G	Irr	Casing slotted 80-212 feet.
605	Cerny Estate	--	1912	160	26 9	30 160	C	120	29.9 54.6 49.3	6-21-40 5-29-74 3- 4-75	T,G	Irr	
606	--	--	--	27	2	27	C	122	--	--	N	N	
607	Boyd Rees	Katy Drilling Co.	1974	286	20 12	200 286	C	124	54.0	7- 9-74	T,E,60	Irr	Casing slotted 90-286 feet; measured discharge 2180 gal/min with 80 feet water level pumping.
608	Ida Noska	Leonard Mickelson	1969	253	13	253	C	128	50 58.5	9- -69 7- 9-74	T,G,90	Irr	Casing slotted 121-198 and 208-251 feet.
701	Gene Reitz	Crowell Drilling Co.	1955	308	12	308	C	132	--	--	T,G,50	Irr	Casing slotted 151-308 feet; reported discharge 1400 gal/min, 1955. <u>1/</u>
702	W. A. Braden	do.	1956	240	12	240	C	131	--	--	T,G,50	Irr	Screened 98-240 feet.
703	Ross Covey	Otto Mickelson	1917	278	24 10	63 278	C	129	42.6 48.5	6- 2-34 3-17-60	T,G,60	Irr	Casing slotted 109-149 and 178-278 feet. <u>2/3/</u>
704	Edwin Korenck	Leonard Mickelson	1958	244	12	244	C	127	--	--	N	Irr	Casing slotted 108-138, 149-162, 169-203, and 207-243 feet.
705	Jack Glaze	Crowell Drilling Co.	1959	230	12	230	C	126	--	--	T,G,48	Irr	Casing slotted 104-230 feet.
706	Gene Reitz	do.	1953	213	12	213	C	124	--	--	T,G,50	Irr	Casing slotted 105-213 feet.
707	Dr. E. A. Weinheimer #3	do.	1957	230	12	230	C	125	--	--	T,G	Irr	Casing slotted 110-142 and 146-230 feet.
708	do.	do.	1908	320	9	320	C	122	36.7 69 77.2	6- 3-40 6- -56 5-24-74	T,G,50	Irr	Pump set at 110 feet; well worked over, 1956.
709	do.	--	before 1918	--	24	--	C	120	--	--	T,G,30	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-46-710	Dr. E. A. Weinheimer #4	Crowell Drilling Co.	1957	260	12	260	C	119	81.6	6-11-74	T,G,50	Irr	Casing slotted 115-260 feet.
711	Jerome Dorotik	Leonard Mickelson	1969	210	14	210	C	129	--	--	T,E,60	Irr	Casing slotted 122-209 feet.
712	Mrs. G. A. Odom	do.	1958	265	12	265	C	120	79.0	6-18-74	T,G,50	Irr	Casing slotted 123-160, 166-219, and 225-264 feet.
801	Carl Roecker	Wm. Thomas	1909	200	24 8	49 200	C	121	34.0 28.7	6-21-40 2-17-47	T,G,30	Irr	
802	Anton Havel	Crowell Drilling Co.	1956	203	12	203	C	124	52.6	3- 4-75	T,G,30	Irr	Casing slotted 70-88 and 110-203 feet. <u>2/3</u>
803	Dipple Bros.	Layne Bowler Co.	1910	313	24 12 13	60 76 313	C	121	33 35.0 77.9	3-15-10 2-17-47 5-29-74	N	N	Screened 44-60, 76-99, 118-177, 196-215, 231-246, 254-273, and 277-313 feet; measured discharge 985 gal/min 7-24-40. <u>3/</u>
804	Drastata Bros.	Crowell Drilling Co.	1953	175	16 12	99 175	C	123	--	--	N	N	Casing slotted 99-175 feet.
806	Emil Yockey	Willy Clark	1946	200+	10	200+	C	116	--	--	T,G,30	Irr	Originally drilled as oil test.
807	Frank Drastata	Leonard Mickelson	1965	275	14	275	C	122	42	1- -74	T,G,70	Irr	Casing slotted 120-164, 171-189, 204-208, and 220-273 feet.
808	E. F. Earl	Layne Bowler Co.	1909	197	24 9	51 181	C	122	30.9 64.2	6-21-40 5-29-74	N	N	Screened 51-100 and 142-181 feet.
809	Dipple Bros.	Crowell Drilling Co.	1974	363	12	363	C	121	--	--	T,G,50	Irr	Casing slotted 152-363 feet.
810	Frank Drastata	Leonard Mickelson	1970	200	14	200	C	123	60	4- -70	T,G,50	Irr	Casing slotted 102-200 feet.
811	H. L. Thornton	do.	1963	310	18 13	139 310	C	126	--	--	T,G,50	Irr	Casing slotted 106-308 feet.
812	Frank Drastata	Crowell Drilling Co.	1964	195	14 12 10	105 128 195	C	125	--	--	T,G,50	Irr	Pump set at 110 feet; casing slotted 105-195 feet.
813	do.	--	--	--	4	--	C	125	66.0	6-18-74	N	N	
814	Joe Proszczka	Crowell Drilling Co.	1964	335	14	335	C	121	53 77.7	1964 6-20-74	T,G,72	Irr	Casing slotted 115-220 and 240-335 feet; measured discharge 1308 gal/min 8-20-74. <u>3/</u>
901	Albert Kresta	A. A. Wuensch	1958	182	12	182	C	122	46.7	5-29-74	T,G,50	Irr	Pump set at 100 feet.
902	Leonard Cherny	Leonard Mickelson	1969	176	13	176	C	121	60	6-15-69	T,G,30	Irr	Casing slotted 90-176 feet.
903	Frank Drastata	do.	1971	244	12	244	C	121	--	--	T,G	Irr	Casing slotted 154-175, 181-202, and 212-243 feet; measured discharge 547 gal/min 8-21-74. <u>3/</u>
904	Dr. L. B. Outlar	do.	1968	309	18 12	208 309	C	118	--	--	T,G,50	Irr	Casing slotted 124-309 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-47-101	J. E. Heyne Estate	Leonard Mickelson	1958	319	14 12	118 319	C	123	37.8 42.9	4- 3-60 3- 4-75	T,G,70	Irr	Casing slotted 80-107, 124-198, 220-226, and 230-318 feet. <u>2/3/</u>
102	Bruce King	do.	1956	245	12	245	C	125	63.5	7- 8-74	T,G,50	Irr	Casing slotted 99-103, 116-137, 152-165, 169-174, 182-204, and 211-245 feet.
301	R. W. Sawyer	do.	1956	269	12	269	C	109	35.8 45.2	3-22-65 4- 9-65	T,G	Irr	Casing slotted 137-142, 146-206, and 215-269 feet. <u>2/</u>
302	Rust Estate	Crowell Drilling Co.	1952	101	6	97	C	105	16	11- -52	T,E	R	Casing slotted 54-97 feet.
303	Albert Chumchal	do.	1956	331	12 10	241 330	C	110	35 39.9	7-15-58 3- 4-75	T,E,50	Irr	Casing slotted 140-330 feet; reported pumping level 88 feet at 1450 gal/min 7-58. <u>2/</u>
401	Arthur Schramm	Leonard Mickelson	1956	235	12	235	C	127	--	--	T,G,50	Irr	Casing slotted 118-151, 162-166, 173-189, and 200-235 feet.
403	L. E. Nelson	do.	1956	277	14 12	203 277	C	125	--	--	T,G,70	Irr	Casing slotted 97-102, 106-114, 122-166, 176-211, 217-221, and 232-273 feet.
404	Mrs. Birdie Glaze	do.	1956	328	14 12	210 328	C	120	37.3 62.9	3-31-60 7- 9-74	T,G,70	Irr	Casing slotted 96-108, 120-143, 148-186, 190-204, 224-285, and 289-327 feet.
405	Charlie Smith	Beseda Water Well Service	1956	76	8	76	C	115	--	--	N	N	Destroyed
406	Mrs. W. D. Graham	Crowell Drilling Co.	1956	160	12	160	C	118	--	--	T,G,30	Irr	
407	Mrs. Tom Rogers	Leonard Mickelson	1956	99	12	99	C	112	36.1	7- 9-74	T,G,50	Irr	Casing slotted 60-80 and 85-99 feet.
408	W. M. Wilbeck	Crowell Drilling Co.	1956	216	12	216	C	111	32.9 32.6	6-19-74 3- 4-75	T,G,55	Irr	Casing slotted 60-105 and 146-216 feet.
409	Fred Wittig	Leonard Mickelson	1965	328	20 14	-- 328	C	114	58.8	7- 9-74	T,G,90	Irr	Casing slotted 105-120, 138-144, 149-206, 218-229, and 239-329 feet. Pump set at 100 feet.
410	E. O. Wittig	do.	1968	382	16 12	197 382	C	114	50 62.3	8- -68 7- 9-74	T,G,150	Irr	Casing slotted 160-381 feet.
411	Charlie Smith	do.	1960	117	12	117	C	115	36.0	do.	T,G,50	Irr	Casing slotted 78-116 feet.
412	J. E. Heyne Estate	do.	1968	332	16 12	204 332	C	128	50	9- -68	T,G,70	Irr	Casing slotted 128-332 feet. <u>1/</u>
413	Milan Krutilek	--	old	178	24 9	-- 178	C	112	35	8- -74	T,G,70	Irr	Pump set at 110 feet. <u>3/</u>
501	- Vineyard	--	--	--	10	--	C	113	--	--	T,E,10	N	Engine not connected.
502	A. F. Wuttrich	Leonard Mickelson	1956	206	12	206	C	109	27.8	6-19-74	T,G,70	Irr	Casing slotted 66-72, 84-98, 125-130, 138-144, 148-153, and 158-205 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-47-503	A. J. Pavlovsky	A. A. Wuenach	1957	214	12	214	C	107	--	--	T,G,50	Irr	Casing slotted 35 feet to total depth.
504	Wendell Properties	Crowell Drilling Co.	1955	357	12	357	C	109	39.0 39.8 40.7	3-22-65 2-12-67 3-19-69	T,G,70	Irr	Casing slotted 160-176 and 195-357 feet. <sup>3/</sup>
505	Kainer Bros.	do.	1956	196	12	196	C	107	--	--	T,G,50	Irr	Casing slotted 55-115 and 146-196 feet.
506	Wendell Properties	Leonard Mickelson	1968	420	18 12	200 420	C	108	50 51.2 45.1	9- -68 6-19-74 3- 4-75	T,G,150	Irr	Casing slotted 151-172, 177-199, 214-229, 246-256, 265-294, 304-357, 370-379, and 394-418 feet.
507	do.	do.	1965	425	20 13	302 425	C	110	--	--	T,G,150	Irr	Casing slotted 73-89, 120-126, 131-142, 170-236, 242-253, 257-296, 302-323, 327-340, 346-362, 366-377, and 383-424 feet.
701	Barr Bros.	Crowell Drilling Co.	1954	96	12	96	C	112	--	--	T,G,30	Irr	Casing slotted 36-96 feet; measured discharge 1400 gal/min, 1960.
702	Logic Tobola	do.	1955	97	7 6	37 97	C	113	34.0	7- -58	T,G,15	Irr	Casing slotted 49-97 feet.
703	Norman Lutringer	do.	1956	242	12	242	C	111	31.8 34.0	3-23-65 3- 4-75	T,G,50	Irr	Casing slotted 70-106 and 152-242 feet. <sup>2/</sup>
704	Mrs. W. G. Barr	do.	1956	218	12	218	C	108	35.1	7- 9-74	T,E,50	Irr	Casing slotted 80-110 and 132-218 feet.
705	Willie Wilbeck #2	do.	1956	216	12	216	C	109	30 36.0	7- -58 7- 9-74	T,E,50	Irr	Casing slotted 60-105 and 146-216 feet; reported pumping level 59 feet at 1110 gal/min 7-58.
706	Marck Bros.	do.	1956	240	12	240	C	107	--	--	T,G,50	Irr	Casing slotted 74-114 and 134-240 feet; measured discharge 732 gal/min 7-9-74.
707	--	--	--	53	2	53	C	112	37.5	7- 9-74	N	N	
802	Willie & Chris Wilbeck	Crowell Drilling Co.	1958	350	12 8 7	200 240 350	C	105	44.8	6-19-74	T,G,50	Irr	Casing slotted 150-200 and 260-350 feet.
803	Waymond McMillan	Leonard Mickelson	1954	206	16 14	130 206	C	102	23.3	do.	T,G,70	Irr	Casing slotted 80-105 and 140-204 feet.
804	Chris Wilbeck	Crowell Drilling Co.	1956	206	12	206	C	107	30.0	do.	N	N	Casing slotted 60-112 and 140-206 feet; reported discharge 935 gal/min 7-58.
805	Eugene Koehler	do.	1956	314	12	314	C	107	39 31.9	12- -56 6-19-74	T,G,50	Irr	Casing slotted 103-120 and 152-312 feet; reported pumping level 59 feet at 1500 gal/min, 1956.
806	Chris Wilbeck	do.	1970	344	12	344	C	107	47.0	do.	T,E,50	Irr	Casing slotted 98-344 feet.

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-47-901	Jon K. Ferguson	J. E. Ferguson	1955	500	16	500	C	99	69.3 53.0	7-30-74 3- 4-75	N	N	
902	do.	Guttenberger Well Service	1973	217	4	217	C	99	46	5-22-73	S,E	D	Screened 207-217 feet; pump set at 100 feet.
48-301	L. E. Barnhill	--	1968	340	14	340	C	86	39.2 30.0	7-23-74 3- 6-75	T,G,90	Irr	
302	do.	--	--	43	4	43	C	84	9.2	7-23-74	T,E,1/2	S	3/
401	Wharton Water Co.	Leonard Mickelson	1954	245	6	245	C	100	--	--	N	N	Casing slotted 220-245 feet; destroyed.
402	City of Wharton #1	Layne-Texas Co.	1949	537	18 10	198 537	C	100	29.4 42.0	3-24-50 2-22-60	T,E	P	Casing slotted 287-302, 309-319, 330-345, 360-385, 405-460, 468-478, and 495-535 feet. 2/3/4/
403	do.	Pomeroy McMasters	before 1934	140	--	940+	C	100	20.8 38.4	2-13-34 3-30-62	N	N	Screened 310-395, 470-480, 520-585, 605-620, and 705-750 feet; destroyed. 2/3/
404	City of Wharton #2	Layne-Texas Co.	1953	760	18 10	211 760	C	100	39.3 58.9	3-21-55 3- 4-75	T,E	P	Casing slotted 310-375, 470-480, 520-585, 605-620, and 705-750 feet. Reported pumping level 74 feet after 24 hours at 1022 gal/min 3-18-53. 1/2/3/4/
405	do.	do.	1931	393	16 12	160 393	C	100	26.7 35.9	6- 4-34 3-20-53	N	N	Screened 212-222, 278-299, 311-333, and 350-390 feet. 2/3/
406	City of Wharton #3	Katy Drilling Co.	1965	892	20 16 8	52 495 892	C-E	100	60	9-30-65	T,E	P	Screened 595-615, 678-694, 708-724, 740-760, 814-836, and 854-880 feet. Reported pumping level 175 feet after 24 hours at 1045 gal/min 9-30-65. 3/
501	Evergreen Mem. Park	Besada Water Well Service	1955	76	6	76	C	95	15.2 12.8	7-31-74 3- 6-75	T,E	Irr	Screened 60-76 feet.
601	J. H. Shanks	American Water Co.	1956	255	12	255	C	90	14.3	3- 3-75	T,G	Irr	2/
602	Robert R. Shanks	Wilbert Hundl	--	--	4	--	C	88	.1	7-23-74	N	N	Pump not installed at time of inventory.
603	Raymond Harrison	Jerry Besada	1955	84	8	84	C	90	--	--	T,E,	Irr	
701	Wharton Turf-Grass	American Water Co.	1956	90	12	90	C	98	29.7	3- 4-75	T,E,25	Irr	Casing slotted 60-90 feet. 2/
705	do.	Guttenberger Well Service	1973	240	6	240	C	88	--	--	S,E, 7 1/2	Irr	Screened 70-80, 230-240 feet. 3/
706	do.	Crowell Drilling Co.	1971	340	12	340	C	97	56.6	8-15-74	T,G,60	Irr	Casing slotted 190-340 feet. 3/
707	do.	--	--	77	6	77	C	101	29.1 23.9	8-21-74 3- 4-75	T,E,5	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-48-801	Henry Stolle	Beseda Water Well Service	1956	76	8	76	C	96	--	--	N	N	Destroyed.
802	Stanley Kouvicke	Raymond Weinbrenner	1957	564	12	564	C	94	30.7	3- 4-75	T,G,50	Irr	Measured discharge 674 gal/min 8-74. <u>2/3/</u>
901	Irving Wittig	Leonard Mickelson	1956	245	12	245	C	92	15.9	7-23-74	N	N	Casing slotted 90-106, 120-126, 136-158, 165-170, 174-187, 194-223, and 231-243 feet.
902	R. H. Vineyard, Jr.	Crowell Drilling Co.	1957	105	10	105	C	92	--	--	N	N	
904	T. E. Dickson	Layne-Texas Co.	1954	370	16	370	C	90	45.9 24.3	6-26-55 6-25-74	T,E,50	Irr	Casing slotted 95 feet to total depth; pump set at 140 feet. Measured discharge 1710 gal/min, 1955. <u>2/3/4/</u>
905	Willie Hubenak	O. T. Davis & Sons	1968	585	16 12	294 585	C	93	--	--	T,E,150	Irr	Casing slotted 260-585 feet; measured discharge 1710 gal/min after 2 months, 1955.
906	--	--	--	24	2	24	C	91	10.0 11.7	7-23-74 3- 6-75	N	N	
51-306	Maurice Hicks	Leonard Mickelson	1953	588	20 12	240 588	C	130	97.1 95.0	10-22-59 3-26-70	N	N	Casing slotted 162-327, 340-351, 363-371, 380-411, 433-436, 474-482, and 496-586 feet. Pumping level 166 feet, measured while well ZA-66-51-307, about 50 feet away, was pumping, 5-74. <u>2/</u>
307	do.	Crowell Drilling Co.	1971	996	20 16 12	399 474 996	E-C	130	--	--	T,G,225	Irr	Pump set at 300 feet; measured discharge 1084 gal/min 8-12-74. <u>3/</u>
52-201	Morton Bros.	Katy Drilling Co.	1959	631	20 12	320 631	C	124	83.0	10-12-59	T,G,200	Irr	Casing slotted 149-631 feet.
202	E. G. Goff	Otto Mickelson	1928	323	24 12	66 323	C	122	36.5 67.5	5-27-40 3- 7-75	N	N	Casing slotted 66-105, 125-178, 189-214, 247-289, and 305-323 feet. <u>2/3/</u>
203	Walter Morton	Katy Drilling Co.	1955	522	20 12	261 522	C	122	73	1-25-55	T,G,200	Irr	Casing slotted 154-522 feet; reported pumping level 162 feet at 2204 gal/min 4-55.
204	L. R. Sublett	do.	1956	597	18 16 12	231 362 597	C	117	67.3 62.6	10-22-59 3-20-64	T,G,110	Irr	Casing slotted 198-210, 215-230, 260-295, 310-320, 338-380, 392-421, 431-435, 505-545, and 557-597 feet.
205	do.	Otto Mickelson	1927	175	16	175	C	118	71.4	5-21-74	N	N	Screened 40-100, 131-175 feet; measured discharge 1095 gal/min 8-40 and 1465 gal/min, 1947. <u>3/</u>
206	Emil Townsen	Leonard Mickelson	1953	153	20 12	113 153	C	111	--	--	T,G,50	Irr	Casing slotted 80-153 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-52-207	Kelly Estate	Leonard Mickelson	1951	242	20 18 12	62 126 242	C	114	54.8 63.2	3-24-65 3- 6-75	T,G	Irr	Casing slotted 72-120, 128-157, and 185-231 feet. <u>2/3/</u>
208	B. G. Goff	Katy Drilling Co.	1973	1196	20 12	476 1196	E-C	122	202	7- 4-73	T,G	Irr	Casing slotted 316-1196 feet; reported pumping level 309 feet after 6 hours at 3426 gal/min 7-73. <u>1/3/</u>
209	do.	do.	1969	1182	20 12	458 1182	E	124	205	8-18-69	T,G	Irr	Casing slotted 824-1185 feet; reported pumping level 319 feet after 5 1/2 hours at 4472 gal/min 8-69.
210	Guy F. Stovall	Leonard Mickelson	1954	112	14	112	C	112	--	--	N	N	Casing had been slotted 50-109 feet; destroyed.
301	John Englund	do.	1949	257	18 12	131 257	C	122	65.3	5-21-74	N	N	Casing slotted 80-252 feet.
302	B. G. Goff	Crowell Drilling Co.	1951	167	20	167	C	120	--	--	T,G,	Irr	Casing slotted 60-167 feet.
303	John Englund	Otto Mickelson	1926	194	24 12	65 194	C	118	38.9 69.1	8-30-35 5-21-74	N	N	Casing slotted 65-115, 121-177, and 186-194 feet; measured discharge 1275 gal/min, 1947. <u>2/3/</u>
304	Kelly Estates	Katy Drilling Co.	1958	650	20 12	299 650	C	113	61.9 75.6	10-22-59 3- 6-75	T,G	Irr	Set 449 feet of screen. <u>2/3/</u>
306	John Englund	Otto Mickelson	1942	113	18	113	C	122	36.2 34.6 63.7	12-14-42 4-12-43 9-26-74	N	N	Measured discharge 932 gal/min 9-47.
307	G. H. Harfst #1	Acco Oil & Gas Co.	1960	5008	--	--	--	115	--	--	--	N	Oil test included in cross section. <u>4/</u>
501	L. R. Sublett	Wm. Thomas	1927	165	24 10	-- 165	C	107	63.2	5-21-74	T,E	D	<u>3/</u>
502	Allen D. Lay	Otto Mickelson	1948	181	16	181	C	102	--	--	T,G,90	Irr	Casing slotted 71-102, 107-121, and 133-181 feet. <u>3/</u>
503	- Stovall	--	old	55	24	55	C	108	53.7	5-21-74	N	N	
601	Lowell Raun	Otto Mickelson	1944	146	24	146	C	108	38.0 72.8	4- 4-47 5-20-74	N	N	Casing slotted 71-146 feet.
602	Lowell Raun #1	Wm. Thomas	1922	275	24 12	72 275	C	109	38	11- -38	T,C	Irr	Screened 40-275 feet; measured discharge 1975 gal/min 7-40. <u>3/</u>
603	Norris Raun #6	Layne-Texas Co.	1951	515	24 12	150 515	C	106	50.0 71.1	5-12-51 3- 6-75	T,G,225	Irr	Casing slotted 85-147 and 150-515 feet; reported pumping level 109 feet after 4 hours at 4100 gal/min 5-51. <u>2/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-52-604	Norris Raun #2	Wm. Thomas	1913	275	24 12	-- 275	C	103	--	--	T,G,225	Irr	Measured discharge 1100 gal/min 7-40. <u>3/</u>
605	Norris Raun #9	Leonard Mickelson	1962	634	18 16 12	211 344 634	C	96	--	--	T,G,225	Irr	Casing slotted 160-634 feet.
606	Lowell Raun	Crowell Drilling Co.	1970	890	20 16 12	327 568 890	C-E	108	137	2-13-60	T,G,200	Irr	Casing slotted 186-890 feet.
607	Donald Sims	do.	1965	215	14	215	C	104	--	--	T,G	Irr	Casing slotted 100-215 feet.
901	Paul Sulak	do.	1954	360	16 12	171 360	C	88	44.2	3-24-60	T,G,110	Irr	Casing slotted 107-171 and 171-360 feet.
902	John Mayfield	do.	1954	230	12	230	C	88	43.8 42.6 50.3	3-24-60 3-16-61 2-18-64	T,G,70	Irr	Casing slotted 95-230 feet; measured discharge 633 gal/min 8-19-74. <u>3/</u>
53-102	D. M. Wright	Otto Mickelson	1927	202	24 12	58 202	C	114	--	--	T,E,100	Irr	Screened 58-79, 91-101, 106-146, and 163-202 feet. <u>3/</u>
103	Jack Morton	Leonard Mickelson	1957	177	12	177	C	117	--	--	T,G,50	Irr	Casing slotted 85-139, 142-148, and 154-177 feet.
104	Kelly Estate	Wm. Thomas	1918	210	24 12	60 210	C	113	36.9	5-31-40	T,G	Irr	
105	Leslie Glaze	Crowell Drilling Co.	1954	418	16 12	196 418	C	111	--	--	T,G,70	Irr	Casing slotted 112-418 feet.
106	do.	Otto Mickelson	1912	200	24 9	-- 200	C	111	37.1 52.2	8-30-35 2-18-64	N	N	<u>2/3/</u>
107	do.	Crowell Drilling Co.	1955	250	20 14	158 250	C	108	74.9 71.7	4-15-74 3- 5-75	T,G,70	Irr	Screened 82-92 and 103-250 feet.
108	E. Hawes Estate	Wm. Thomas	1917	286	24 12	65 286	C C	107	36.5 35.9 37.1	5-31-34 5-25-40 3-16-47	N N	N	Casing had been slotted 65-286 feet. Destroyed. <u>3/</u>
109	Leslie Glaze	Crowell Drilling Co.	1965	260	20 14	150 260	C	107	--	--	T,G,70	Irr	Casing slotted 110-260 feet.
110	Mike Wright	--	--	22	2	22	C	114	1.9	4-16-74	N	N	Capped with old pitcher pump.
111	Kelly Estate	Katy Drilling Co.	1970	911	20 12	380 911	C-E	113	122	6- -70	T,G,350	Irr	Casing slotted 261-911 feet; pumping level 225 feet with 3150 gal/min discharge after 4 hours.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-53-112	Marvin Turner	Crowell Drilling Co.	1952+	435	20 12	180 435	C	115	--	--	T,E,150	Irr	Casing is collapsing; well is scheduled to be replaced.
201	Robert Rasmussen	Art Layne	1918	169	24 12	49 169	C	115	--	--	S,E	D	Pump set at 100 feet; formerly used for irrigation. <u>3/</u>
202	do.	Wm. Thomas	1918	216	24 10	58 216	C	112	33	4- -40	S,E	D	Formerly used for irrigation. <u>3/</u>
203	Donald Meeks	Charley Mickelson	1913	195	26 8 6	58 134 195	C	105	28.0 25.8	5-31-40 4-16-47	T,G,50	Irr	Screened 114-134 and 155-195 feet; reworked in 1957.
204	Grady Wigginton	Leonard Mickelson	1957	309	12	309	C	105	--	--	T,G,70	Irr	Casing slotted 102-175, 179-186, 194-286, and 293-308 feet.
205	Bergstrom Bros.	do.	1968	395	18 14	194 395	C	103	89.7	4-16-74	T,G,90	Irr	Casing slotted 114-126, 151-178, 186-225, 231-326, and 336-391 feet.
206	Fred Garrett	Crowell Drilling Co.	1966	354	16	354	C	103	--	--	T,G,110	Irr	Casing slotted 150-354 feet.
207	do.	Wm. Thomas	1920	356	16	356	C	103	31.5 27.9	5-31-40 3-16-47	T,G	Irr	Old well worked over, originally set with 24-inch casing. <u>3/</u>
208	R. E. Meek	Leonard Mickelson	1962	247	12	247	C	105	--	--	T,G,70	Irr	Casing slotted 103-123, 131-215, and 231-247 feet.
209	Grady Wigginton	Katy Drilling Co.	1974	240	20 12	200 240	C	105	75	4- -74	T,G,70	Irr	Casing slotted 71-240 feet; pump set at 180 feet. Reported pumping level 153 feet after 10 hours at 2360 gal/min. <u>3/</u>
210	Robert Rasmussen	O. T. Davis & Sons	1968	415	14	415	C	112	--	--	T,G,110	Irr	Casing slotted 155-415 feet.
211	Marvin Turner	Leonard Mickelson	1973	406	18 12	238 406	C	114	--	--	T,G,110	Irr	Casing slotted 158-232, 238-270, and 290-404 feet.
301	S. G. Shrader	Charley Mickelson	1912	190	24 9	60 190	C	114	33.8	6- 1-40	N	N	Destroyed.
302	Al Wittig #2	Crowell Drilling Co.	1954	617	20 12 10	212 523 617	C	115	48.4 66.1	3-22-65 4- 6-71	T,G,110	Irr	Casing slotted 90-617 feet. <u>2/3/</u>
303	Norman Hicks	Otto Mickelson	1949	222	16	222	C	114	76.2	6-13-74	T	N	Casing slotted 103-222 feet.
305	J. J. Hill	Crowell Drilling Co.	1955	435	20 12	182 435	C	107	65.6	4-16-74	T,G,70	Irr	Casing slotted 80-435 feet.
306	Frank Merta	Otto Mickelson	1948	286	24 16 12	60 108 286	C	105	47	1974	T,E	Irr	Casing slotted 60-67, 101-148, 169-189, and 239-286 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-53-307	Harfst Bros.	Otto Mickelson	1915	282	24 10	66 282	C	109	34.0 55.9	6- 2-34 3- 6-75	N	N	Screened 124-188 and 207-282 feet; measured discharge 1570 gal/min, 1947. <u>2/3/</u>
308	Mary Merta	--	--	166	10	166	C	103	48.4	4-16-74	N	N	May be old oil test.
309	J. D. Clark	Leonard Mickelson	1972	360	12	360	C	105	40 65.0	3- -72 4-16-74	N	N	Casing slotted 155-167, 197-203, 213-244, 250-270, 280-305, and 310-358 feet.
310	Elmer Kainer	Crowell Drilling Co.	1964	401	18 16 12	150 171 401	C	108	44	11-17-64	T,G,90	Irr	Casing slotted 120-401 feet; pump set at 120 feet in 1972.
311	R. E. Meek	Charley Mickelson	1912	200	24 12	-- 200	C	108	30.0 27.2 64.4	5-28-40 3-16-47 4-16-74	T,E,40	Irr	
312	Ben Labay	Leonard Mickelson	1968	304	13	304	C	115	78.9	6-13-74	T,G,50	Irr	Casing slotted 150-305 feet.
313	P. J. Herrmann Estate	do.	1972	598	18 13	301 598	C	116	40	2- -72	T,E,125	Irr	Casing slotted 160-216, 227-251, 260-301, 311-342, 354-395, 405-430, 435-462, 467-484, and 525-593 feet. Reported pumping level 140 feet after 8 hours at 2200 gal/min.
314	Dick Harfst	do.	1968	484	20 18 16 14	230 256 404 484	C	109	--	--	T,G,150	Irr	Casing slotted 158-482 feet.
401	Philip Hensley	Henry Cleveland	1953	200	16	200	C	101	47.1 76.3	2- 9-60 6-12-74	T,G,70	Irr	
402	L. S. Stockton	Wm. Thomas	1922	260	24 12	-- 260	C	98	31.4 29.8	5-25-40 3-16-47	T,E	S	Originally used for irrigation
403	Wittig & Stockton	Leonard Mickelson	1954	611	20 16 12	203 313 611	C	100	68.0	3- 7-75	T,G	Irr	Casing slotted 101-609 feet.
404	E. Hawes Estate	Wm. Thomas	1922	260	24 12	65 260	C	106	42	2- -35	T,G,50	Irr	Measured discharge 1815 gal/min 7-18-40. 3
405	do.	Crowell Drilling Co.	1957	310	16	310	C	103	--	--	T,G,110	Irr	Screened 100-310 feet.
406	Norris Raun #4	Otto Mickelson	1946	348	20 14 12 10	128 -- -- 348	C	101	36.9 84.5	4- 4-47 5-20-74	T,G	Irr	Pump set at 120 feet; measured discharge 2138 gal/min 4-4-47.
407	Norris Raun #8	Leonard Mickelson	1954	429	20 16 12	202 303 429	C	96	47.7 52.4	3-24-60 3-20-64	T,G,150	Irr	Casing slotted 100-424 feet; test hole drilled to 601 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-53-408	Wilbur Webb	Leonard Mickelson	1954	431	20 16 14 12	148 250 312 431	C	100	--	--	T,G,110	Irr	Casing slotted 100-115, 129-337, 352-368, and 381-429 feet; pump at 110 feet. <u>4/</u>
409	E. Hawes Estate	do.	1965	261	16	261	C	106	--	--	T,G,110	Irr	Casing slotted 100-200, 205-215, 218-231, and 236-260 feet; pump set at 130 feet.
410	Norris Raun	Crowell Drilling Co.	1973	777	20 16 12	310 350 777	C-E	94	--	--	T,G,250	Irr	Casing slotted 150-777 feet. <u>4/</u>
411	Leslie Glaze	do.	1970	366	12	366	C	108	--	--	T,G,80	Irr	Casing slotted 130-212 and 246-366 feet.
412	do.	--	--	47	4	47	C	108	47	5-20-74	N	N	Old pitcher pump.
502	Charles Vitera	--	1957	--	10	--	C	85	65.7	4-15-74	N	N	Furnished water used while drilling oil test.
503	J. W. Gresham	Crowell Drilling Co.	1954	338	16 12	139 338	C	94	45.5 60.0	3-23-65 3- 6-75	T,E	Irr	Casing slotted 94-338 feet. <u>2/3/</u>
504	H. F. Sharp	Wm. Thomas	1910	310	24 10	-- 310	C	96	29.0 41.2	6- 1-34 3-17-60	T,G,72	Irr	<u>2/</u>
505	Jay Anderson	Crowell Drilling Co.	1953	376	16 12	130 376	C	100	70.2	4-16-74	T,E,200	Irr	Casing slotted 112-376 feet. <u>3/</u>
506	Albert Wenglar	Leonard Mickelson	1965	294	12 3/4	294	C	92	54	6-28-65	T,G,70	Irr	Casing slotted 131-147, 175-229, and 251-293 feet. <u>3/</u>
507	Charles Vitera #4	Crowell Drilling Co.	1969	412	16	412	C	92	--	--	T,G,75	Irr	Casing slotted 122-144, 172-190, 218-257, and 258-412 feet.
508	M. L. Bain	do.	1972	735	20 16 12	300 340 735	C	97	78.3	5-17-74	T,G,150	Irr	Casing slotted 300-735 feet. <u>1/</u>
509	do.	do.	1971	320	16	320	C	91	76.2	do.	T,G	Irr	Casing slotted 176-320 feet.
510	do.	do.	1968	285	16	285	C	91	74.0	do.	N	N	Casing slotted 171-285 feet.
511	Charles Vitera	--	--	57	4	57	C	91	23.2	do.	N	N	
512	do.	--	--	96	4	96	C	91	58.1	do.	S,E	S	
513	Charles Vitera #1	Crowell Drilling Co.	1960	220	12	220	C	91	--	--	T,G,70	Irr	Casing slotted 110-220 feet.
514	Narry Vitera #2	do.	1962	340	18 12 10	150 220 340	C	93	--	--	T,G,52	Irr	Casing slotted 110-146, 170-220, and 244-340 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-53-515	Harry Vitera #3	Crowell Drilling Co.	1966	389	16 12	-- 389	C	93	--	--	T,G,110	Irr	Casing slotted 194-240, 254-280, and 292-389 feet.
516	do.	--	--	115	4	115	C	91	68.6	5-20-74	N	N	
517	H. F. Frantom	Crowell Drilling Co.	1974	486	16	486	C	97	--	--	T,E,100	Irr	Casing slotted 135-486 feet.
602	F. J. Merta	do.	1955	311	16 12	148 311	C	101	52.3	3- 5-75	N	N	Casing slotted 88-311 feet.
603	J. J. Koudela	Walter Garrett, Jr.	1956	143	8	143	C	98	44.0 95	3-22-65 3-15-74	T,G,15	Irr	Casing slotted 65-90 and 110-143 feet. <u>3/</u>
604	Carl Treude	Crowell Drilling Co.	1954	340	14 12	130 340	C	95	--	--	T,G,50	Irr	Casing slotted 130-340 feet.
606	J. Bridges	do.	1967	350	16 12	153 350	C	99	30	1974	T,E,125	Irr	Casing slotted 100-350 feet.
607	do.	Leonard Mickelson	1968	292	14	292	C	101	--	--	T,E,75	Irr	Casing slotted 120-159 and 169-290 feet.
608	Frank Merta	--	1974	350	16	350	C	101	--	--	T,G,90	Irr	Casing slotted about 180-350 feet.
609	--	--	--	33	4	33	C	97	22.3	5-17-74	P,W	S	
610	C. D. Bergstrom #1	Anderson & Cook	1958	3025	--	--	--	100	--	--	--	N	Oil test included in cross section. <u>4/</u>
701	Anderson Bros.	Crowell Drilling Co.	1969	790	20 16 12	311 349 790	C-E	86	64.1	3- 5-75	T,E	Irr	Casing slotted 250-790 feet; measured discharge 1749 gal/min 8-19-74. <u>3/</u>
801	Mrs. Ruby Babcock	Wm. Thomas	1908	272	24 9	60 272	C	89	32.2 25.8 71.9	6-12-40 4- 5-47 5-16-74	N	N	
802	H. P. Frantom	Crowell Drilling Co.	1952	250	12 10	108 250	C	86	--	--	T,G,110	Irr	Casing slotted 108-250 feet.
803	Alex Ekvall	Wm. Thomas	1912	280	24 9	65 280	C	85	31.6 25.1	6-12-40 4- 5-47	S,E,1	D	Pump set at 80 feet.
804	Jack Thomas	Crowell Drilling Co.	1950	495	18 12	199 495	C	82	46.9 60.0	3-23-65 3- 5-75	T,G	Irr	Casing slotted 199-495 feet. <u>2/3/</u>
805	H. P. Frantom	do.	1964	380	18	380	C	82	82.0	5-16-74	T,G,110	Irr	Casing slotted 116-280 and 310-380 feet.
806	Harry Vitera	do.	1967	380	16 12	153 380	C	89	--	--	T,G,90	Irr	Casing slotted 153-380 feet.
807	P. M. Tucker	Leonard Mickelson	1951	305	18 12	150 305	C	91	74.2 68.2	6-27-66 5-16-74	T,G,70	N	Casing slotted 115-305 feet; reportedly contaminated by natural gas. <u>3/</u>

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-53-808	F. M. Tucker	Leonard Mickelson	1966	325	20 12	138 325	C	91	61.7 80.0	6-27-66 5-16-74	N	N	Casing slotted 110-134, 138-174, 178-204, and 220-324 feet; reportedly contaminated by natural gas. <u>3/</u>
809	E. F. Earl Estate	Layne Texas Co.	1909	234	24 9	48 234	C	91	22 27.0 73.2	2-12-09 4-15-47 5-16-74	N	N	Screened 102-130, 137-174, and 213-232 feet. <u>3/</u>
810	P. M. Tucker	Crowell Drilling Co.	1974	480	--	480	C	92	63.7	3- 5-75	T,G,70	Irr	Pump set at 170 feet.
901	Joe Fopp	Thomas & Payne	1913	220	12	220	C	93	30.2	5-17-74	T	N	Old well worked over in 1954; set 12-inch casing inside 24-inch casing.
902	Gilbert Wendell	Crowell Drilling Co.	1957	250	12	250	C	91	100	4-15-74	T,G	Irr	Casing slotted 105-133 and 150-250 feet.
903	Urban Wendell	do.	1951	304	18 12	111 304	C	88	44.1 57.2	3-22-65 3- 5-75	T,G,72	Irr	Casing slotted 100-304 feet. <u>2/3/</u>
904	L. S. Stockton	Wm. Thomas	1908	280	24 9	60 280	C	88	30.6	6-12-40	N	N	
905	Mrs. C. A. Ward	do.	1926	310	24 10	65 310	C	86	30.6	6-12-40	N	N	Destroyed.
906	Clemens Appling	Crowell Drilling Co.	1951	260	12 10 8	105 125 260	C	88	--	--	N	N	do.
907	Harry Sharp	do.	1957	342	16 12	200 342	C	90	--	--	T,E,75	Irr	Casing slotted 126-342 feet.
908	Herbert Roades	Roades Drilling Co.	1974	440	10 9	230 440	C	89	--	--	T,G,90	Irr	Casing slotted 211-221, 228-253, 263-300, 332-352, 367-397, 407-417, and 430-440 feet.
909	John Schmidt	Crowell Drilling Co.	1963	283	12 10	170 283	C	94	35 68.4	8-31-63 4-15-74	T,G,50	Irr	Casing slotted 110-170 and 205-283 feet.
910	Jay Anderson	do.	1965	795	20 16 12	301 319 795	C	88	--	--	T,E,200	Irr	Casing slotted 281-301, 327-441, 461-483, 517-557, 567-587, 605-625, and 661-795 feet. <u>4/</u>
54-101	Dr. E. A. Weinheimer #6	do.	1958	251	12	251	C	118	84.2 56.9	6-11-74 3- 5-75	T,G,50	Irr	Casing slotted 105-251 feet.
102	Dr. E. A. Weinheimer #5	do.	1958	236	12 10	118 236	C	118	--	--	T,G,30	Irr	Casing slotted 100-169 and 191-236 feet.
103	Irving Wendell	Otto Mickelson	1913	320	24 9	50 320	C	115	83.6	6-11-74	N	N	
104	R. L. Hicks	Crowell Drilling Co.	1951	180	14	180	C	112	--	--	T,G	Irr	Casing slotted 100-180 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-54-105	Dr. E. A. Weinheimer #7	Crowell Drilling Co.	1959	243	12	243	C	113	--	--	T,G	Irr	Casing slotted 104-243 feet.
106	G. H. Harfat	Leonard Mickelson	1951	473	20 12	206 473	C	110	--	--	T,G	Irr	Casing slotted 97-109, 121-137, 142-158, 170-218, 228-263, 267-337, and 349-472 feet.
107	D. W. Beck	do.	1956	209	14 12	108 209	C	111	88.5	6-13-74	T,G,50	Irr	Casing slotted 87-96, 110-117, 124-159, and 171-206 feet.
108	Albert Gadke	Crowell Drilling Co.	1952	360	20 12	118 360	C	105	45.6 54.2	3-22-65 3- 6-75	T,G,110	Irr	Casing slotted 118-360 feet. <u>2/3/</u>
110	E. J. Hancock	do.	1966	384	16 12	165 384	C	112	--	--	T,G,90	Irr	Casing slotted 120-384 feet.
111	P. J. Herrmann Estate	Leonard Mickelson	1966	433	20 12	200 433	C	115	--	--	T,G,150	Irr	Casing 131-215, 244-393, and 414-432 feet.
201	E. J. Bartosh	Crowell Drilling Co.	1956	192	10	192	C	116	--	--	T,G,30	Irr	Casing slotted 98-192 feet.
202	Oakland Mem. Park	H. D. Sowder	--	--	5	--	C	112	47.1	6-11-74	S,E	Irr	
203	Ben Labay	Crowell Drilling Co.	1956	246	14 12	30 246	C	116	70.9	6-18-74	T,G,50	Irr	Casing slotted 75-94 and 115-215 feet.
204	E. H. Swanson	--	old	--	24, 9	--	C	118	--	--	N	N	Destroyed.
205	J. W. Gresham	Crowell Drilling Co.	1955	320	16 12	155 320	C	113	87.1	6-20-74	T,G,90	Irr	Casing slotted 115-320 feet; measured discharge 1470 gal/min 8-14-74. <u>3/</u>
206	P. J. Herrmann Estate	--	1904	--	24	--	C	113	--	--	N	N	Destroyed; measured discharge 730 gal/min 8-14-40. <u>3/</u>
207	C. Wendell & Craig	Crowell Drilling Co.	1951	358	16 12	112 358	C	110	--	--	T,G,50	Irr	Casing slotted 112-358 feet.
208	Derral Garrett	Thomas & Payne	1919	--	24, 9	--	C	112	36.2	6- 3-40	N	N	
209	Red Miller	Leonard Mickelson	1957	243	12	243	C	112	--	--	T,G,50	Irr	Casing slotted 86-102, 108-117, 121-127, 132-139, 148-175, and 189-226 feet.
210	El Campo Country Club	Fraylor Drilling	1967	95	4	95	C	114	40	3-10-67	S,E	D	Screened 87-95 feet.
211	do.	B&P Drilling Contractors	1967	226	8 6 5	160 203 226	C	114	66	5- 3-67	S,E,15	Irr	Screened 160-226 feet; reported pumping level 75 feet after 2 hours at 100 gal/min 5-67. <u>3/</u>
212	P. J. Herrmann Estate	Leonard Mickelson	1963	501	18 12	250 501	C	114	89.4 57.3	6-11-74 3- 5-75	T,G,110	Irr	Casing slotted 166-193, 196-251, 269-279, 288-338, 364-419, and 446-498 feet.
213	Dr. E. A. Weinheimer	do.	1967	280	12	280	C	115	--	--	T,G	Irr	Casing slotted 140-230 and 233-278 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-54-214	Louie Mollnar	- Stancliff	1907	100	24	100	C	114	--	--	T,G,30	Irr	
215	D. C. Swanson	Crowell Drilling Co.	1952	216	16 12	120 216	C	117	--	--	T,G,70	Irr	Casing slotted 112-216 feet.
216	South Texas Fertilizer Co.	do.	1962	166	4	166	C	114	42	12- -62	S,E,3	Ind	Screened 156-166 feet.
217	D. W. Beck	Leonard Mickelson	1967	565	18	565	C	111	--	--	T,G,110	Irr	Casing slotted 175-563 feet; measured discharge 1318 gal/min 7-16-74.
218	K&S Ranch	Crowell Drilling Co.	1966	142	4	142	C	113	66	7-29-66	S,E,1	D	Casing slotted 136-142 feet.
301	P. J. Wendel	Leonard Mickelson	1955	136	12	136	C	115	--	--	T,G,50	Irr	Casing slotted 65-108 and 124-135 feet. <u>4/</u>
302	F. Kotlar, Jr.	Walter Garrett, Jr.	1956	102	10 9	63 102	C	115	--	--	T,G,40	Irr	Casing slotted 63-102 feet.
303	Louie Mollnar	Leonard Mickelson	1956	323	14 12	255 320	C	117	--	--	T,G,70	Irr	Casing slotted 86-108, 136-258, 266-282, and 287-318 feet.
304	J. E. Turner	Otto Mickelson	1917	160	24 10	39 160	C	109	--	--	N	N	Screened 45-66, 98-113, and 145-160 feet.
305	Elmer Kainer	A. A. Wuensch	1956	214	12	214	C	110	--	--	T,G,50	Irr	
306	Mickelson Pump Shop	Praytor Drilling	1967	90	4	90	C	113	43	8- 4-67	S,E	Ind	Screened 85-90 feet.
307	Louie Mollnar	Pat Smith	1905	--	24	--	C	116	44.5	6-18-74	T,G,50	Irr	Pump set at about 45 feet.
308	Elmer Kainer	Leonard Mickelson	1963	235	16	235	C	116	53.7 51.7	6-19-74 3- 5-75	T,G,50	Irr	Casing slotted 100-155, 173-199, and 205-233 feet. <u>3/</u>
309	Manor Oaks Nursing Home	Connor Water Well Service	1969	95	4	95	C	107	41	12-17-69	S,E	D	Screened 85-95 feet.
310	J. D. Lowrie Well Service	do.	1968	100	4	100	C	114	47	6- 5-68	S,E,1	Ind	Screened 90-100 feet.
311	D. Duson	Leonard Mickelson	1967	224	--	224	C	110	40	9- -67	N	N	<u>3/</u>
401	Emil Cihal	Otto Mickelson	1945	281	18 12	60 281	C	104	--	--	N	N	Casing slotted 60-70, 100-214, and 238-281 feet.
402	Walter Ladwig	Crowell Drilling Co.	1958	271	12 10	160 271	C	104	--	--	T,G,70	Irr	Casing slotted 117-271 feet.
403	Dr. John Halamicek	Otto Mickelson	1949	220	14 10	87 220	C	100	--	--	T,G,50	Irr	Casing slotted 110-158 and 175-220 feet.
404	Bill Boehning	Leonard Mickelson	1954	206	12	206	C	100	--	--	T,G,70	Irr	Casing slotted 106-204 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-54-405	Jay Bridges	Crowell Drilling Co.	1956	329	16 12	156 329	C	98	--	--	T,G,70	Irr	Casing slotted 111-329 feet; measured discharge 732 gal/min 8-13-74. <u>3/</u>
406	Priemeyer Bros.	Leonard Mickelson	1967	330	16 14	189 330	C	104	98.2	6-11-74	T,G,70	Irr	Casing slotted 120-328 feet.
407	Carl Gadeke	Crowell Drilling Co.	1950	300	18 12	105 300	C	103	--	--	T,G,50	Irr	Casing slotted 105-300 feet.
408	Dr. John Halamiczek	Leonard Mickelson	1968	320	14 12	243 320	C	103	50 91.7 54.9	8- -68 6-20-74 3- 7-75	T,G,50	Irr	Casing slotted 136-320 feet.
409	Gadeke Estate	Layne-Bowler	1908	--	24, 9	--	C	104	26.5	3-14-47	N	N	<u>3/</u>
501	Charles Payne	Otto Mickelson	1945	222	24 18 12	63 81 222	C	109	--	--	N	N	Casing slotted 63-84 and 132-220 feet.
502	D. W. Beck	do.	1946	333	18 12	100 333	C	107	28.8 43.2	3-14-47 3-21-56	S,E	D	Casing slotted 95-98, 99-118, 134-143, 148-157, and 185-330 feet. Former irrigation well; bottom portion of casing collapsed. Measured discharge 1570 gal/min, 1947.
503	Mrs. C. Swanson	Leonard Mickelson	1951	370	20 18 12	91 169 370	C	105	--	--	T,G,100	Irr	Casing slotted 96-104, 125-201, 211-237, 244-254, 277-292, 298-316, 324-339, and 346-368 feet. Measured discharge 1267 gal/min 8-20-74. <u>3/</u>
504	Charles Payne, Jr.	do.	1953	401	20 14 12	196 309 401	C	106	--	--	T,G,90	Irr	Casing slotted 128-228, 308-355, and 363-399 feet.
505	Mrs. C. E. Glaze	Crowell Drilling Co.	1971	545	20 16 12	300 333 545	C	102	107.2 62.6	5-31-74 3- 3-75	T,G,150	Irr	Casing slotted 165-216, 228-264, and 290-545 feet.
506	D. W. Beck	--	1943	69	4	69	C	106	51.0	7-16-74	P,W	S	
507	do.	Leonard Mickelson	1968	482	20 12	243 482	C	107	--	--	T,G,150	Irr	Casing slotted 134-170, 185-229, 241-370, and 385-480 feet; measured discharge 1882 gal/min 8-13-74. <u>3/</u>
508	Leroy Strmedel	Crowell Drilling Co.	1965	233	14	233	C	104	--	--	T,G,70	Irr	Casing slotted 78-99 and 144-233 feet. <u>3/</u>
509	Rice Enterprises	do.	1963	92	4	92	C	103	32	1-16-63	S,E,1	Ind	Casing slotted 82-92 feet.
601	City of El Campo #4	Texas Water Wells, Inc.	1951	1088	14 8	685 1088	E-C	110	60 84.8	1951 1-13-70	T,E,75	P	Screened 690-725, 755-775, 842-855, 880-925, 970-1002, and 1065-1085 feet. Reported pumping level 147 feet after 8 hours at 750 gal/min, 1951. <u>2/4/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-54-602	Mickelson Appliance Co.	Leonard Mickelson	1952	90	7	90	C	104	--	--	T,E	Ind	
603	City of El Campo #3	Otto Mickelson	1946	1400	12 10	200 1400	E-C	104	38 81	4- 6-47 11- -71	T,R,50	P	Screened 790-823, 860-880, 890-916, 925-1025, 1035-1077, 1118-1162, and 1245-1265 feet. Reported pumping level 138 feet after 6 hours at an estimated 700 gal/min 4-6-47. <u>1/2/3/</u>
604	City of El Campo #2	Layne-Texas Co.	1929	1098	16 10	146 1098	E	104	17.9 82.9	6- 1-34 3- 5-75	T,E,40	P	Screened 895-916, 927-980, and 1038-1060 feet. <u>2/3/</u>
605	Modern Farmers Gin Co-op	Otto Mickelson	1949	95	6	95	C	99	--	--	T,E,10	Ind	Casing slotted 75-95 feet.
606	American Legion	Crowell Drilling Co.	1955	112	10 8	76 112	C	100	--	--	T,R, 1 1/2	R	Pump set at 70 feet.
607	Paul Dornak	Leonard Mickelson	1952	114	12	114	C	102	44.5 43.2	7-10-74 3- 3-75	T,R,40	R	Pump set at 70 feet.
608	Edmund Mach	do.	1952	265	18 12	105 265	C	99	--	--	T,G,85	Irr	Casing slotted 80-109, 160-215, and 223-264 feet.
609	City of El Campo #1	Pomeroy-McMasters	1926	1188	17 6	106 1188	E	104	18.8 52.1	6- 1-34 3-23-56	N	N	Screened 883-902, 1016-1035, and 1075-1095 feet; destroyed. <u>2/3/</u>
610	El Camp Rice Mills	Thomas & Payne	--	95	6	95	C	108	26.1	4-18-45	N	N	Destroyed. <u>2/3/</u>
611	F. Dornak	Charley Mickelson	1924	102	24 8	-- 102	C	102	22.5 21.0	6- 5-34 4- 5-47	N	N	Destroyed. <u>2/3/</u>
612	Red Barn Chemical	Praytor Drilling	1967	91	4	91	C	100	39	4- 7-67	S,E,3/4	Ind	Screened 86-91 feet.
613	Grady Wigginton	Leonard Mickelson	1950	260	20 18 14	59 117 260	C	100	--	--	T,G,110	Irr	<u>3/</u>
614	L. W. Chappell	Crowell Drilling Co.	1944	120	8	120	C	101	--	--	T,E,7	Irr,R	
615	do.	L. W. Chappell	1934	100	8	100	C	101	--	--	S,R,1	D,S	
616	El Campo Aluminum #1	Leonard Mickelson	1963	255	13	255	C	100	--	--	T,E,75	Ind	Casing slotted 146-210 and 217-253 feet.
617	El Campo Aluminum #2	do.	1963	254	13	254	C	100	--	--	T,R,42	Ind	Casing slotted 151-207 and 214-252 feet.
618	Wharton County Electric Co-op	Connor Water Well Service	1970	94	4	94	C	103	40	6- 5-70	S,E	Ind	Screened 84-94 feet.
619	Rice Farmers Co-op	Praytor Drilling	1967	90	4	90	C	106	40	8- 1-67	S,E	Ind	Screened 84-90 feet.
620	Edmund Mach	do.	1967	108	4	108	C	103	37	3-24-67	S,E	D	Screened 102-108 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water Level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-54-621	City of El Campo #5	Layne-Texas Co.	1970	1032	14 8	700 1032	E-C	99	67	4-27-60	T,E	P	Screened 710-730, 772-797, 820-870, 895-960, and 980-1020 feet. Reported pumping level 177 feet after 12 hours at 1209 gal/min 4-27-60. <u>3/4/</u>
701	Stanley Hrcnir	Walter Garratt	1956	193	12	193	C	94	45.7 58.0	3-22-65 3- 5-75	N	N	Casing slotted 143-193 feet. <u>2/3/</u>
702	Johnnie Schmidt	--	--	296	14	296	C	94	--	--	T,G,50	Irr	
703	Czech Catholic Home	Praytor Drilling	1968	163	4	163	C	95	87	5-29-68	S,E,1	D	Screened 158-163 feet.
704	Stanley Hrcnir	Crowell Drilling Co.	1971	280	13	280	C	95	--	--	T,G,50	Irr	Casing slotted 100-280 feet.
705	Dr. E. A. Weinheimer	Leonard Mickelson	1963	268	12	268	C	93	--	--	T,G	Irr	Casing slotted 134-266 feet.
801	Elmer Kainer	Crowell Drilling Co.	1960	251	12	251	C	101	--	--	N	N	
802	Bob Perkins	B&D Drilling Co.	--	303	14	303	C	105	71.1	4-17-74	T,E,60	Irr	
803	Robert Boyd #2	Leonard Mickelson	1948	402	24 12 10	104 345 402	C	98	52.0 51.9 54.2	3-22-65 3-17-66 2- 9-67	T,G,110	Irr	Casing slotted 132-193, 203-248, 270-320, and 330-400 feet.
804	do.	Otto Mickelson	1946	270	18 12 10	81 214 270	C	100	28.1 60.2	4- 4-47 4-17-74	N	N	Casing slotted 81-104, 111-141, 149-214, and 224-268 feet.
805	Gangl Bros.	American Water Co.	1944	250	24 --	-- 250	C	98	--	--	T,G	Irr	
806	do.	Crowell Drilling Co.	1954	250	12	250	C	100	89.9	5-31-74	N	N	Casing slotted 99-250 feet.
807	Robert Boyd	Otto Mickelson	1944	226	16 12	60 226	C	100	25.8 52.3 58.2	4- 4-47 4-17-74 3- 3-75	N	N	
808	Dominic Zaskoda	Crowell Drilling Co.	1952	405	18 12	108 405	C	97	94.7	5-31-74	T,G,72	Irr	Pump set at 120 feet.
809	Johnnie Schmidt	Sam Shult	old	200	24 9	45 200	C	97	--	--	N	N	<u>3/</u>
810	Arthur Wilson	Leonard Mickelson	1966	404	20 12	200 404	C	100	48	1974	T,G	Irr	Casing slotted 124-137, 145-173, 178-199, 214-245, 251-319, and 325-403 feet.
811	Broadway Sheet Metal	Praytor Drilling	1969	100	4	100	C	103	45	3-22-69	J,E,1	Ind	Casing slotted 95-100 feet.
812	Johnnie Schmidt	Crowell Drilling Co.	1969	688	20 16 12	302 339 688	C	97	75.8	4-10-74	T,G,200	Irr	Casing slotted 210-255 and 278-688 feet. Measured discharge 2614 gal/min 8-13-74. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-54-901	L. C. Brown	Johnson Water Well Service	1956	100	4	100	C	96	--	--	C,H,3	S	Casing slotted 82-100 feet.
902	George Bauer	Leonard Mickelson	1952	132	12	132	C	92	--	--	T,G,100	Irr	Casing slotted 68-132 feet.
903	Lynner Bros.	do.	1951	220	20 18 12	65 122 220	C	90	--	--	T,E,30	Irr	Casing slotted 70-89, 108-129, and 163-219 feet; measured discharge 595 gal/min 8-27-74. <u>3/</u>
904	Joe Humphreys #2	Crowell Drilling Co.	1956	223	12	223	C	92	50.6	3-16-70	T,G	Irr	Casing slotted 90-223 feet. <u>2/</u>
905	A. A. Priesmeyer	Leonard Mickelson	1969	360	14 13	230 360	C	100	50 85.2	1- -69 5-31-74	T,G,145	Irr	Casing slotted 122-360 feet.
906	Greenleaf Nursery	Crowell Drilling Co.	1971	461	14	461	C	89	108.6	do.	T,E,75	Irr	Casing slotted 416-461 feet. <u>3/</u>
907	do.	B&P Drilling Contractors	1973	250	6	250	C	89	--	--	S,E,45	Irr	Casing slotted 200-240 feet.
908	Worley Kight	Leonard Mickelson	1972	286	18 12	161 286	C	95	94.3	6- 3-74	T,G,115	Irr	Casing slotted 100-117, 125-132, 144-146, 156-182, 188-201, 218-230, and 240-262 feet.
909	do.	Otto Mickelson	1919	253	26 10	50 253	C	95	21.8 67.5	4- 5-47 6- 3-74	N	N	Screened 84-104, 135-155, 181-223, and 240-253 feet.
910	do.	Johnson Water Well Service	1971	88	2	88	C	94	43	1974	S,E,1/3	D	Screened 84-88 feet.
911	E. E. Reitz	Crowell Drilling Co.	1974	318	12	318	C	91	--	--	N	Irr	Casing slotted 163-318 feet.
55-101	Dr. W. W. Duson	Pat Smith	1920	59	20	59	C	109	42.8	3- 7-75	N	N	Screened 29-59 feet. <u>3/</u>
102	Lucien Kainer	A. A. Wuensch	1957	232	12	232	C	109	42.8	6-17-74	T,G,50	Irr	<u>3/</u>
103	Abe Bishkin	Crowell Drilling Co.	1959	500	12	500	C	106	49.3 57.5 78.9	6- -59 7-12-63 6-17-74	T,G,75	Irr	Casing slotted 260-500 feet; reported pumping level 92 feet after 24 hours at 1340 gal/min 6-59. <u>3/</u>
104	USGS observation well	--	--	114	4	114	C	103	36.9	3- 4-75	N	N	<u>2/</u>
105	W. F. Kainer	A. A. Wuensch	1957	221	12	221	C	109	33.5 42.9	9-19-58 3- 4-75	T,G	Irr	Casing slotted 75-221 feet; reported pumping level 63 feet after pumping 990 gal/min 7-58. <u>2/3/</u>
106	Victor Kainer	Crowell Drilling Co.	1956	203	12	203	C	109	--	--	T,G,50	Irr	Casing slotted 81-203 feet.
107	H. F. Franke	do.	1955	198	12	198	C	105	45.8	6-19-74	T,G,70	Irr	Casing slotted 50-198 feet.
108	Alf N. Nilson #1	Layne & Bowler	1907	160	30 8	60 50	C	103	18	1947	T,G,50	Irr	Old well worked over 1955, originally drilled to 310 feet. Screened 189-214 feet; measured discharge 1500 gal/min, 1947. <u>2/3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-55-109	Alf N. Nilson	Luther Paterson	1938	216	5	216	C	104	26.6	3-26-52	N	N	<u>2/3/</u>
110	Dept. of Public Safety	Johnson Water Well Service	1972	315	4 2	280 315	C	105	74	7-31-72	S,E, 1/2±	D	Casing slotted 290-298 and 308-318 feet.
111	Alf N. Nilson #3	Crowell Drilling Co.	1968	445	14	445	C	104	72.2	6- 4-74	T,C	Irr	Casing slotted 265-445 feet. <u>4/</u>
112	Kubela(?)	--	--	--	24	--	C	104	37.5	6-17-74	N	N	
113	Donald Schoenfield	Crowell Drilling Co.	1970	346	14	346	C	109	74	7-27-70	T,G,70	Irr	Casing slotted 152-346 feet. <u>3/</u>
114	Joe Koudela	--	1922	180	24 12	40 180	C	106	--	--	N	N	Casing may have collapsed.
115	Floyd Watz	Connor Water Well Service	1968	78	4	78	C	109	40	1-29-68	S,E,3/4	D	Screened 74-78 feet.
116	Elray Hatzke	Leonard Mickelson	1960	241	12	241	C	103	42	1972	T,G	Irr	Casing slotted 101-111, 146-184, and 195-240 feet.
117	Arthur Schaeef	--	--	45	2	45	C	103	39.1	7-17-74	N	N	Sandpoint, open 42-45 feet.
118	J. Wood	--	1900	320	24 12 8	40 -- 320	C	98	40.5	do.	N	N	<u>3/</u>
119	Mrs. Walter Anderson	Otto Mickelson	1914	331	24 9	50 331	C	105	40.0	do.	N	N	Screened 109-149, 184-204, 218-238, and 271-331 feet. <u>3/</u>
120	L. E. Nilson	Leonard Mickelson	1961	375	16	375	C	102	--	--	N	N	Casing collapsed. <u>3/</u>
201	Pierce Ranch	Texaco?	1936	1272	10	1272	E	96	4 46	1948 10- -73	S,E	D	Flowed when drilled in 1936; pump set at 100 feet. Casing slotted below 1120 feet.
202	do.	Praytor Drilling	1974	180	2	180	C	100	38	2- -74	S,E,1	S	Casing slotted 174-180 feet.
301	do.	--	1925	29	3	29	C	94	15.0	6- 4-74	P,W	S	<u>3/</u>
302	J. B. Ferguson	J. B. Ferguson	1966	550	16	550	C	97	--	--	T,G,200	Irr	Measured discharge 756 gal/min 8-22-74. <u>3/</u>
303	do.	Leonard Mickelson	1969	481	18 13	230 480	C	95	80	4- -69	T,G,165	Irr	Casing slotted 206-316 and 322-479 feet.
304	do.	J. B. Ferguson	1955	550	16	550	C	95	--	--	T,G,70	Irr	Originally drilled as oil test in 1940's.
305	Pierce Ranch	--	--	82	3	82	C	93	14.2	3- 6-75	P,W	S	
401	Edmund Mach	Otto Mickelson	1946	101	24 12	51 101	C	99	16.0	4- 5-47	T,G,70	Irr	Casing slotted 51-101 feet.
402	Joe Humphreys #1	Crowell Drilling Co.	1956	220	12	220	C	95	--	--	T,C,50	Irr	Casing slotted 90-220 feet.

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-55-403	Kirk Marek	Walter Garrett, Jr.	1956	134	12	134	C	90	18	10- -56	T,G,52	Irr	Casing slotted 80-134 feet.
404	Wilbur Carlquist	Leonard Mickelson	1972	262	14 13	144 262	C	100	40	2- -72	T,G,70	Irr	Casing slotted 100-123, 138-144, 187-202, 208-220, and 244-261 feet. Reported pumping level 120 feet after 6 hours at 1200 gal/min 2-72.
405	E. W. Bard	Johnson Water Well Service	1953	59	5	59	C	99	36.9	7-16-74	P,W	D,S	
406	do.	Prayter Drilling	1974	67	2	67	C	99	--	--	J,R,1	D	
407	do.	--	1951	90	4	90	C	99	35.8	7-16-74	N	N	
408	H. L. Wilson	A. A. Wuensch	1959	237	12	237	C	99	58.9	7-17-74	T,G,50	Irr	Pump set at 100 feet.
409	Wigginton	Powell	1957	--	16	--	C	96	43.1	do.	N	N	
501	Joe Zalman	Crowell Drilling Co.	1957	352	12	352	C	87	40.0	3- 5-75	T,G	Irr	Casing slotted 112-130 and 175-352 feet. <u>2/</u> <u>3/</u>
503	Kirk Marek	Leonard Mickelson	1971	324	14	324	C	89	40	4- -71	T,G,50	Irr	Casing slotted 105-141, 147-167, 182-203, 238-253, 261-281, 285-302, and 308-324 feet.
504	--	--	--	27	2	27	C	91	26.6	7-16-74	N	N	
505	John Boyd	--	old	300	24 9	40 300	C	97	35.2 33.1	7-17-74 3- 6-75	N	N	Well probably reworked, has 32-inch casing at top. <u>3/</u>
601	Pierce Ranch	--	old	30	3 1/2	30	C	85	10.2	6- 4-74	P,W	S	<u>3/</u>
602	do.	Triton Drilling Co.	1965	7152	10	--	--	82	--	--	--	N	Oil test included in cross section. <u>4/</u>
701	Edmund Mach	Otto Mickelson	1949	253	18 16 12	55 203 253	C	91	33.3	3-17-60	T,G,70	Irr	Casing slotted 55-68, 75-90, 113-121, and 203-253 feet.
702	do.	Leonard Mickelson	1958	270	18 12	156 270	C	90	--	--	T,G,52	Irr	Casing slotted 77-95, 101-127, 142-172, 178-196, 219-252, and 258-266 feet.
703	J. K. Allen #3	do.	1951	524	20 18 16 12	86 198 236 524	C	90	41.0 37.2	3-23-65 3-17-70	T,G,110	Irr	Casing slotted 105-130, 150-214, 240-280, 310-344, and 356-524 feet. <u>2/3/</u>
704	J. K. Allen #2	Otto Mickelson	1949	134	16	134	C	90	--	--	T,G,110	Irr	Casing slotted 80-134 feet.
705	Harlan Nelson	Leonard Mickelson	1952	277	20 12	155 277	C	89	56.9 39.1	6-12-74 3- 3-75	S,B,12	S	Casing slotted 30-275 feet.
706	Merrill Swanson	Otto Mickelson	1948	430	18 12	103 430	C	85	--	--	N	N	Casing slotted 48-73, 94-119, 239-254, 294-324, 354-365, and 376-430 feet; destroyed.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-55-707	Edmund Holub	Leonard Mickelson	1967	518	18 16 13	200 250 518	C	88	111.3	6- 3-74	T,C,150	Irr	Casing slotted 187-199, 213-218, 228-243, 248-306, 312-337, 341-358, 368-386, 392-397, and 424-516 feet.
708	Gangl Bros.	do.	1973	440	14 12	200 440	C	85	--	--	T,G,70	Irr	Casing slotted 170-180, 196-206, 216-228, 238-264, 279-296, 302-323, 359-364, and 370-437 feet.
709	Edmund Holub	do.	1973	693	20 12	300 693	C	86	124.3	6- 3-74	T,G,215	Irr	Casing slotted 187-220, 233-239, 244-250, 265-271, 281-302, 314-323, 382-391, 401-476, 494-586, 601-616, 621-659, and 665-691 feet.
710	Harlan Nelson	do.	1973	446	20 14	310 646	C	87	--	--	T,E,200	Irr	Casing slotted 188-644 feet; measured discharge 2832 gal/min 6-5-74.
711	do.	do.	1968	585	18 14 12	251 506 585	C	89	60	8- -68	T,G,150	Irr	Casing slotted 184-585 feet; measured discharge 2034 gal/min 6-3-74. <u>1/</u>
801	Herman Mach	Crowell Drilling Co.	1954	170	12	170	C	90	--	--	T,C	R	Casing slotted 81-170 feet; reported discharge 617 gal/min 7-58.
802	Allen Bros.	Leonard Mickelson	1958	277	12	277	C	83	--	--	T,G,50	Irr	Casing slotted 108-130, 147-154, 170-175, 181-199, 204-241, and 247-277 feet.
803	Quintin Shult	do.	1952	299	20 12	100 299	C	87	--	--	T,G,70	Irr	Casing slotted 105-212, 247-255, and 266-299 feet.
804	J. C. Allen	Otto Mickelson	1915	439	26 10	49 439	C	84	15.4 23.1	3-21-34 3- 5-75	N	N	Screened 62-76, 132-154, 237-303, and 409-439 feet. <u>2/</u>
805	Grady Allen	Leonard Mickelson	1964	628	18 16 12	206 256 628	C	81	--	--	T,G,150	Irr	Casing slotted 173-626 feet.
806	R. I. Ganin	--	--	--	--	--	C	93	--	--	T,E,25	R	
901	Gangl Bros.	Sam Shult	1912	314	26 9	40 314	C	76	15.1 26.2	6- 4-40 3- 3-75	T,C,30	Irr	<u>2/</u>
902	Wilbur Carlquist	Leonard Mickelson	1973	277	13	277	C	81	--	--	T,G,50	Irr	Casing slotted 91-102, 112-125, 142-147, 153-165, 185-226, and 232-275 feet.
56-101	Bollinger Bros.	Katy Drilling Co.	1954	1001	24 14 12	248 750 1001	C-E	85	49	4- -74	T,G,350	Irr	Casing slotted 396-1001 feet; measured discharge 1460 gal/min 8-22-74. <u>1/3/</u>
102	Pierce Ranch	--	--	63	4	63	C	81	27.6 23.7	6- 4-74 3- 6-75	P,W	S	
103	do.	--	--	107	4	107	C	86	23.1	6- 4-74	P,W	S	<u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-56-104	Pierce Ranch	--	old	41	3	41	C	85	17.2 16.1	6- 4-74 3- 6-75	P,W	S	
105	Wharton Turf-Grass #2	A. A. Wuensch	1959	120	8	120	C	88	--	--	T,G	Irr	Pump set at 120 feet.
106	Wharton Turf-Grass #3	Leonard Mickelson	1963	296	12	296	C	88	43.9 30.6	7-31-74 3- 6-75	T,G	Irr	Casing slotted 136-158, 195-234, and 257-296 feet.
107	Wharton Turf-Grass #7	Guttenberger Well Service	1968	340	6	340	C	88	69.9	7-31-74	S,E, 7 1/2	Irr	
108	do.	--	--	56	4	56	C	88	31.2	do.	N	N	
109	Wharton Turf-Grass #1	--	1955	90	6	90	C	88	--	--	T,E,15	Irr	
201	G. A. Harrison	Jerry Beseda	1956	75	6	75	C	89	24.9	8-15-74	S,E	Irr	Casing slotted 55-75 feet; pump set at 63 feet.
202	do.	do.	1956	76	6	76	C	89	24.7	do.	S,E	Irr	Casing slotted 56-76 feet; pump set at 63 feet.
203	B. Cherry	do.	1955	76	6	76	C	86	--	--	T,E	Irr	Casing slotted 56-76 feet.
204	Leonard Wittig	D. T. Davis & Sons	1970	410	14	410	C	86	--	--	T,G,50	Irr	Pump set at 130 feet.
205	Buddy Bernstein	--	1968	69	4	69	C	84	17.3	6-25-74	N	N	
301	H. R. Sansing	Leonard Mickelson	1948	619	18 12	138 619	C	89	--	--	T,E	Irr	Casing slotted 112-117, 143-169, 211-249, 256-285, 321-362, 380-456, 525-581, and 594-618 feet; measured discharge 1369 gal/min 8-22-74. <u>3/</u>
302	B. J. Sliva	Layne-Texas Co.	1956	490	12	490	C	81	47.6 58.6	3-23-65 3- 3-75	T,E	R	Screened 283-323, 353-368, 373-409, and 419-480 feet. <u>2/3/</u>
303	Buddy Bernstein	Crowell Drilling Co.	1960	425	12	425	C	85	48.1	3- 6-75	N	N	Casing slotted 100-130 and 223-425 feet.
304	J. K. Ferguson	Leonard Mickelson	1970	368	13	368	C	91	50	2- -70	T,G,50	Irr	Casing slotted 110-127 and 179-368 feet. <u>3/</u>
305	R. R. Sansing	Layne-Texas Co.	1949	--	14	--	C	87	54.1	6-25-74	N	N	
306	do.	Otto Janssen	1974	137	14	137	C	87	--	--	T,E,50	Irr	Casing slotted 76-92, 104-132 feet.
401	Pierce Ranch	Praytor Drilling	1974	229	4	229	C	80	50	5- -74	S,E,1	D	Casing slotted 221-229 feet.
402	Lacy Armour #1	J. B. Wheeler Trust	1951	6012	--	--	--	83	--	--	--	N	Oil test included in cross section. <u>4/</u>
601	--	--	--	29	3 1/2	29	C	79	10.4	6-24-74	N	N	
602	--	--	--	31	2 1/2	31	C	70	+2.0	do.	P,W	S	
603	H. C. Cockburn Estate	Adolph Smith	1966	4660	--	--	--	77	--	--	--	N	Oil test included in cross section. <u>4/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-56-701	Leo Montgomery	Leonard Mickelson	1953	160	12	160	C	76	26.9 23.0	3-23-65 6-12-74	N	N	Casing slotted 96-160 feet. <u>3/</u>
702	A. C. Thompson	Otto Mickelson	1938	157	14	157	C	75	20.4	do.	N	N	Measured discharge 985 gal/min 7-16-40. <u>3/</u>
703	Hugh Thompson	Leonard Mickelson	1956	280	18 14	158 280	C	74	--	--	T,G,70	Irr	Casing slotted 86-94, 97-113, 118-146, 149-157, 189-194, and 206-280 feet.
704	Melvin Harper	do.	1970	167	14 12	126 167	C	75	30.8 22.7	4- 8-71 3- 5-75	T,G,50	Irr	Casing slotted 90-165 feet. <u>2/</u>
801	Melvin Harper #1	do.	1964	882	20 13	248 882	C	74	--	--	T,G,150	Irr	Casing slotted 243-265, 271-301, 311-332, 342-352, 357-376, 390-400, 433-464, 468-480, 495-498, 501-542, 548-579, 584-606, 621-669, 675-705, 711-743, 763-809, 819-856, and 862-882 feet. <u>3/</u>
802	Melvin Harper #4	Crowell Drilling Co.	1974	470	14	470	C	72	82.0	6-12-74	T,E	Irr	Casing slotted 230-470 feet; cemented to 155 feet.
803	Melvin Harper #2	Leonard Mickelson	1964	315	14	315	C	72	27.4	do.	N	N	Casing slotted 118-143, 153-166, 176-195, 205-267, and 274-315 feet.
804	Melvin Harper #3	do.	1967	357	14	357	C	72	--	--	T,G,70	Irr	Casing slotted 132-147, 153-174, 184-200, 215-225, 245-256, 262-323, and 328-355 feet.
805	Pierce Ranch	do.	1973	180	12	180	C	76	--	--	T,G	R,S	Casing slotted 125-175 feet.
901	H. Shotwell	A. A. Wuensch	1957	194	12	194	C	75	15.2	3- 3-75	T,G,50	Irr	<u>2/</u>
61-101	Sam B. Heard	Crowell Drilling Co.	1953	319	16	319	C	76	--	--	T,G,52	Irr	Casing slotted 100-318 feet.
201	Carl Treude	Wm. Thomas	1912	310	24 9	60 310	C	74	25.7	6-12-40	T,G,50	Irr	Well probably reworked; measured 14-inch casing inside 24-inch casing, 1974.
202	L. S. Stockton	do.	1926	310	24 10	65 310	C	75	63.9 62.0	4-26-74 3- 5-75	N	N	Well probably reworked; measured 12-inch casing 4-74. <u>3/</u>
203	Frank Gresham	Crowell Drilling Co.	1953	377	18 12	128 377	C	74	--	--	T,G,110	Irr	Casing slotted 128-377 feet.
204	Marvin Rau	do.	1954	315	18 12	125 315	C	73	--	--	T,E,150	Irr	Casing slotted 125-315 feet.
205	L. S. Stockton	Wm. Thomas	1912	280	24 10	-- 280	C	82	23.3 38.8	6- 2-34 3-19-56	N	N	Destroyed. <u>2/</u>
207	Marvin Rau	Crowell Drilling Co.	1973	425	12	425	C	74	--	--	T,E,200	Irr	Casing slotted 158-425 feet.
208	Jack Thomas	--	--	--	12	--	C	81	--	--	T,G,30	Irr	Originally drilled as oil test.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-61-209	Frank J. Popp	Crowell Drilling Co.	1956	501	8	501	C	75	--	--	T,E	N	Originally drilled as oil test, reworked by Crowell.
210	Jay Anderson	do.	1966	996	20 18 13	305 324 996	C-E	81	--	--	T,E,150	Irr	Casing slotted 205-240, 270-380, 470-510, 530-650, 720-780, 880-900, and 950-996 feet. <u>4/</u>
211	Jack Thomas	do.	1970	594	16	594	C	81	80	1- 1-70	T,G,110	Irr	Casing slotted 158-594 feet.
212	Hultquist Bros.	do.	1965	373	16 12	202 373	C	75	--	--	T,E,60	Irr	Casing slotted 253-373 feet; measured discharge 1360 gal/min 8-20-74. <u>3/</u>
301	Wharton Co. WCID #1 well #1	Texas Water Well, Inc.	1952	688	6	688	C	82	45	1952	T,E	P	Screened 560-585, 595-635, and 656-678 feet. <u>1/3/4/</u>
302	do. well #2	Crowell Drilling Co.	1958	528	6	528	C	82	110.8	6-10-74	N	N	Screened 400-440 and 503-528 feet.
303	J. E. Brown	do.	1957	324	12	324	C	84	--	--	T,E,50	Irr	Casing slotted 126-324 feet.
304	F. J. Strouhal	do.	1953	335	18 12	115 335	C	86	--	--	T,G,50	Irr	Casing slotted 115-325 feet.
305	J. K. Allen	Leonard Mickelson	1952	600	20 18 16 12	153 201 261 600	C	81	58.6	3- 5-75	T,G	Irr	Casing slotted 134-243, 256-282, 292-303, 312-445, 456-471, 508-537, and 553-599 feet. <u>2/3/</u>
307	Kenneth Allen	do.	1967	657	18 16 14 12	281 369 449 657	C	81	84.1	5-15-74	T,G,225	Irr	Casing slotted 232-237, 242-269, 275-394, 404-514, and 529-655 feet.
308	L. W. Priesmeyer	Crowell Drilling Co.	1964	394	16 12	162 394	C	81	110	12-27-64	T,G,110	Irr	Casing slotted 135-394 feet.
309	Wharton Co. WCID #1 well #3	do.	1971	410	14	410	C	82	--	--	T,E,100	P	Casing slotted 95-110, 175-195, 245-260, 280-315, and 335-350 feet. <u>3/4/</u>
601	Daniel Sulak	do.	1958	402	12	402	C	73	44.1 73.8	3-22-65 5-15-74	T,G,75	Irr	Casing slotted 122-166, 190-250, and 270-402 feet. <u>2/3/</u>
602	C. C. Appling	Wm. Thomas	1920	286	12	286	C	72	--	--	T,G,50	Irr	<u>3/</u>
604	Frod Garrett	Otto Mickelson	1942	281	20 12	62 281	C	70	22.5 63.0	4- 4-47 4-26-74	T,E	S	Casing slotted 62-76, 116-146, 160-211, and 231-277 feet.
605	do.	Crowell Drilling Co.	1952	420	16 12	197 420	C	70	--	--	T,G,50	Irr	Casing slotted 127-197 and 310-420 feet.
606	do.	do.	1967	486	16 12	284 486	C	70	--	--	T,G,150	Irr	Casing slotted 167-486 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-61-607	Daniel Sulak	Crowell Drilling Co.	1967	391	16 12	190 391	C	73	--	--	T,G,85	Irr	Casing slotted 190-391 feet; water has a salty taste but improves with pumping (TWDB, 2-71). 3/
608	Allen Bros.	Leonard Mickelson	1972	407	18 14 12	149 301 407	C	74	--	--	T,G,125	Irr	Casing slotted 125-175, 181-201, 206-250, 254-264, 289-328, and 348-407 feet.
609	do.	do.	1970	641	18 16 12	300 329 641	C	70	60	4- -70	T	Irr	Casing slotted 182-201, 216-232, 242-269, 290-354, 364-405, 417-427, 430-449, 464-502, 517-523, 533-559, 580-586, and 607-642 feet.
901	C. D. Bergstrom	Otto Mickelson	1945	399	18 12	105 399	C	70	79.8 54.8	9-17-74 3- 3-75	N	N	Casing slotted 111-132, 162-179, 186-243, 270-295, 307-321, 343-358, 366-385, and 394-399 feet.
905	L. L. Krenek	Crowell Drilling Co.	1969	508	16	508	C	68	100 58.2	11-10-69 2- 8-71	N	N	Casing slotted 240-508 feet; abandoned due to saltwater contamination. 3/
906	Willie Weynandt	do.	1965	482	16	482	C	70	--	--	T,G,150	Irr	Casing slotted 215-244, 271-309, 340-351, 363-422, and 438-482 feet.
62-101	Sammy Popp	--	--	--	--	--	C	91	--	--	N	N	
103	Milton Kainer	Walter Garrett, Jr.	1959	246	12	246	C	83	64.1	4-10-74	T,G	N	
104	Adolf Schoenberg	Leonard Mickelson	1950	359	18 12	135 359	C	86	47.9 60.5	3-23-65 3- 5-75	N	N	Casing slotted 152-198, 216-254, and 264-371 feet. 2/3/
105	Milton Kainer	do.	1973	481	22	481	C	85	69.0	4-10-74	T,G,70	Irr	Casing slotted 160-191, 201-218, 233-269, 281-296, 318-349, 355-392, and 412-479 feet.
106	do.	do.	1973	113	4	113	C	85	65.1	do.	N	N	
107	Johanie Schmidt	Crowell Drilling Co.	1967	620	20 16 12	318 359 620	C	86	72.6	do.	T,G,110	Irr	Casing slotted 205-620 feet.
108	Willard Bodungen	do.	1956	319	16 12	156 319	C	78	--	--	T,G,150	Irr	Casing slotted 131-319 feet.
109	Schoenberg #1	Lynsl, Inc.	1964	6612	--	--	--	77	--	--	--	N	Oil test included in cross section. 4/
201	Jerry Strnadell	A. A. Wuensch	1957	226	12	226	C	95	--	--	N	N	
203	George Lehnert	Crowell Drilling Co.	1956	260	10 8	151 260	C	88	--	--	T,G,15	Irr	Casing slotted 151-260 feet.
204	Pete Lurker	Leonard Mickelson	1956	192	12	192	C	90	--	--	N	N	Casing slotted 100-136, 153-169, and 174-192 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-62-205	Pete Lurker	Crowell Drilling Co.	1954	253	12	253	C	82	--	--	T,G,50	Irr	Casing slotted 98-253 feet.
206	Adrian Johnson	Otto Mickelson	1927	290	24 10	57 290	C	83	25.1 49.1	3-24-34 3- 5-75	N	N	Screened 57-77, 108-128, 152-172, 180-195, and 230-290 feet. <u>2/</u>
207	A. Schoenberg	Leonard Mickelson	1972	630	18 12	300 630	C	90	--	--	T,G,70	Irr	Casing slotted 200-241, 247-279, 294-309, 321-416, 426-432, 467-488, 494-529, 545-582, and 592-626 feet.
208	--	--	--	57	4	57	C	84	47.8	4-11-74	N	N	
209	Ted Lurker	Crowell Drilling Co.	1967	504	16 12	204 504	C	93	77.0	do.	T,G,90	Irr	Casing slotted 204-504 feet.
210	Charles Bloom	do.	1971	310	10	310	C	82	--	--	T,G,50	Irr	Casing slotted 170-310 feet.
301	Ben Beal	Leonard Mickelson	1953	245	14	245	C	89	--	--	T,G,70	Irr	Casing slotted 82-102, 110-130, 155-175, 188-200, and 209-245 feet.
302	do.	Crowell Drilling Co.	1959	258	10 8	142 258	C	90	--	--	T,G,56	Irr	Casing slotted 170-258 feet.
303	C. T. Blankenburg	Leonard Mickelson	1953	258	12	258	C	89	--	--	N	N	Casing slotted 65-98, 115-149, and 197-257 feet; destroyed.
304	C. C. Appling	Otto Mickelson	1927	371	24 12 10	68 133 371	C	89	--	--	T,G,72	Irr	Screened 83-133, 183-223, 247-307, and 341-371 feet; measured discharge 1530 gal/min 7-16-40. <u>3/</u>
305	Alvin Johnson	Leonard Mickelson	1951	445	18 12	151 445	C	92	--	--	T,G,70	Irr	Casing slotted 126-146, 179-229, 240-262, 268-320, 329-381, 386-414, and 429-443 feet.
306	Arthur Priesmeyer	do.	1952	418	20 12	152 418	C	88	--	--	N	N	Casing slotted 100-172, 191-203, 214-223, 246-260, 275-321, and 327-417 feet; destroyed.
307	C. C. Appling	Otto Mickelson	1927	180	24 12 10	68 133 180	C	88	27.1 43.0	3-24-34 3- 5-75	F,W	S	Screened 83-133 feet; originally drilled to 522 feet; casing collapsed below 180 feet. Formerly used for irrigation. <u>2/3/</u>
308	C. F. Daboval	--	--	60	4	60	C	84	46.3	4-11-74	N	N	
309	Frank Ramsey	Leonard Mickelson	1966	421	18 16	175 421	C	84	--	--	T,E,150	Irr	Casing slotted 102-146, 158-182, 188-272, 276-332, and 336-416 feet.
310	Arthur Priesmeyer	do.	1967	580	18 16 12	244 404 580	C	89	82.6 67.6	4-11-74 3- 3-75	T,G,110	Irr	Casing slotted 160-578 feet; measured discharge 1294 gal/min 8-27-74. <u>3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-62-311	C. T. Blankenburg	Crowell Drilling Co.	1964	462	18 16	190 462	C	89	--	--	T,G,50	Irr	Casing slotted 216-462 feet; measured discharge 1255 gal/min 4-11-74.
312	L. E. Hubenak	Otto Mickelson	1925	386	26 12 10	70 233 386	C	89	47.6	8-28-74	N	N	Screened 76-91, 101-106, 119-139, 183-233, 247-262, and 346-386 feet; measured discharge 865 gal/min 7-16-40. <u>3/</u>
401	Louis Carriere	Thomas & Payne	1918	305	24 9	65 305	C	78	30.0 55.8	6-12-40 3- 3-75	T,G,50	Irr	
402	C. R. Sublett	Otto Mickelson	1946	356	20 12 10	81 225 356	C	78	--	--	N	N	Destroyed.
403	Anderson Bros.	Wm. Thomas	1915	280	24 9	65 280	C	73	31.6 19.2	6-12-40 4- 4-47	N	N	Destroyed.
404	J. W. Gresham	Crowell Drilling Co.	1954	338	16 12	139 338	C	75	34.3 55.1	3-22-65 3- 5-75	N	N	Casing slotted 94-338 feet. <u>2/</u>
405	Anderson Bros.	do.	1952	405	18 12	108 405	C	76	--	--	T,G,50	N	Casing slotted 110-215, 222-266, 285-348, and 370-405 feet.
406	B. J. Skalicky	Otto Mickelson	1927	347	24 10	73 347	C	74	33.4 19.6	6-12-40 4- 4-47	N	N	Screened 91-101, 136-156, 161-178, 193-207, 233-273, and 285-347 feet; destroyed. <u>3/</u>
407	E. Schoenberg	Leonard Mickelson	1964	377	20 12	206 377	C	78	57	3- -74	T,G,110	Irr	Casing slotted 140-203, 209-219, 236-255, and 265-375 feet.
408	Phil Richmond	Crowell Drilling Co.	1972	486	16 12	300 486	C	77	--	--	T,G,90	Irr	Casing slotted 300-486 feet.
409	J. W. Gresham	--	--	85	4	85	C	76	72.8	4-10-74	N	N	
410	Wiesner Bros.	Crowell Drilling Co.	1972	448	16	448	C	74	--	--	T,G,90	Irr	Casing slotted 216-448 feet.
411	Carl Johnson	Leonard Mickelson	1966	424	20 12	250 424	C	74	--	--	T,G,150	Irr	Casing slotted 128-193, 198-226, 238-281, 285-351, 356-384, 386-396, 401-413, and 419-424 feet.
412	Anderson Bros.	Crowell Drilling Co.	1968	920	20 16 12	300 343 920	C-E	76	--	--	T,G,225	Irr	Casing slotted 300-920 feet. <u>4/</u>
413	Jay Anderson	do.	1970	1000	20 16 12	400 448 1000	C-E	73	120 79.4	1-22-70 5-15-74	T,G,225	Irr	Casing slotted 300-1000 feet.
414	B. J. Skalicky	do.	1968	446	16	446	C	74	--	--	T,G	Irr	Casing slotted 122-445 feet.
415	Kountz-Stewart	do.	1952	458	16 12	158 458	C	72	61.8	3- 5-75	T,G,70	Irr	Casing slotted 158-458 feet. <u>2/3/</u>

See footnotes at end of table.



Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-62-503	V. J. Marek	Crowell Drilling Co.	1953	321	16 12	111 321	C	77	--	--	T,G,70	Irr	Casing slotted 111-321 feet.
504	Wiesner Bros.	American Water Co.	1944	240	22 --	-- 240	C	74	--	--	T,G,70	Irr	
505	Walter Garrett, Sr.	do.	1950	450	18 14	140 450	C	75	38.4 53.2	3-17-60 3- 3-75	N	N	Casing slotted 140-450 feet. <u>2/</u>
506	Carl Johnson	Leonard Mickelson	1947	303	18 12	237 303	C	72	--	--	T,G,70	N	Casing slotted 75-160, 184-200, 214-222, and 241-296 feet.
507	Louis Riha	Thomas & Payne	1918	--	24 9	60 --	C	73	28.0 15.4 56.3	6-13-40 4- 3-47 4-25-74	N	N	
508	John Wiesner	Crowell Drilling Co.	1966	285	12	285	C	77	66.7	4-10-74	T,G,50	Irr	Casing slotted 185-285 feet; measured discharge 1161 gal/min 8-20-74. <u>3/</u>
509	--	--	--	78	4	78	C	74	59.8	4-11-74	F,W	S	
601	Beck-Myatt	Otto Mickelson	1948	427	18 16 12 10	102 174 330 427	C	83	28.4 44.1	3-23-49 3-28-58	T,E,100	Irr	Casing slotted 80-102, 174-234, 246-269, 278-298, 312-330, 338-368, 378-393, and 401-427 feet. <u>2/</u>
602	Frank Ramsey	do.	1930	150	12	150	C	81	--	--	T,E,50	Irr	Screened 38-58, 73-93, and 123-139 feet. <u>3/</u>
603	do.	Pat Smith	1927	310	24 12	60 310	C	82	21.2 52.2	4-25-40 3- 5-75	N	N	<u>2/</u>
604	do.	Leonard Mickelson	1957	396	18 16	154 396	C	82	--	--	T,E,102	Irr	Casing slotted 100-124, 127-141, 163-202, 206-219, 224-308, 317-342, 350-371, and 374-396 feet.
605	Leroy Strnadell	Henry Lane	1955	358	12	358	C	76	45.5	4-24-74	N	N	
606	E&M Samon	Otto Mickelson	1930	248	12	248	C	75	--	--	T,G	Irr	Screened 24-28, 68-110, 128-149, and 208-248 feet; measured discharge 680 gal/min 7-17-40. <u>3/</u>
607	L. W. Priesmeyer	Leonard Mickelson	1958	413	14 12	157 413	C	75	--	--	T,G,50	Irr	Casing slotted 109-129, 133-154, 169-175, 179-250, 259-297, 303-337, 347-354, and 361-413 feet.
608	V. J. Marek	Crowell Drilling Co.	1954	325	16 12	121 325	C	82	--	--	T,G,30	Irr	Casing slotted 121-325 feet.
609	do.	Leonard Mickelson	1965	498	20 12	204 498	C	82	--	--	T,E,150	Irr	Casing slotted 152-180, 186-200, 205-211, 216-231, 237-263, 273-326, 332-394, 406-434, and 440-496 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-62-610	Frank Ramsey	Crowell Drilling Co.	1974	1080	20 16 12	305 396 1080	C-E	81	--	--	T,E,250	Irr	Casing slotted 250-270 and 285-1080 feet; measured discharge 2816 gal/min 8-22-74. <u>3/</u> <u>4/</u>
611	Leroy Strnadell	do.	1971	672	16	672	C	75	75.1	4-24-74	T,G,160	Irr	Casing slotted 200-672 feet.
612	L. W. Friesmeyer	do.	1971	630	16 12	310 630	C	76	67.2	4-25-74	T,G,110	Irr	Casing slotted 208-630 feet.
702	Milton Shult	Walter Garrett, Jr.	1957	215	12	215	C	71	57.9	4-26-74	N	N	Casing slotted 103-153 and 176-215 feet.
703	Buster Thomas	Leonard Mickelson	1948	501	18 12 10	153 351 501	C	70	--	--	T,G	Irr	
704	Zboril Bros.	Powell	1950	500	14	500	C	68	66.9	4-25-74	T,G,110	Irr	Pump set at 160 feet.
705	George Willis #2	Leonard Mickelson	1953	602	20 12	200 602	C	67	64.5	do.	T,G,110	Irr	Casing slotted 143-157, 163-175, 200-327, 335-405, 428-480, 496-511, 518-529, 546-556, and 579-602 feet.
706	Willis & Wallis	Otto Mickelson	1942	398	24 12	76 398	C	67	14.9 39.8	4- 3-47 4-25-74	P,W	S	Casing slotted 76-113, 216-311, and 351-398 feet; formerly used for irrigation.
708	Stoval & Appling	do.	1931	390	24 12	59 390	C	68	15.9 17.3	6- 1-34 4- 2-59	N	N	Screened 81-108, 213-234, 246-265, 289-307, 325-342, and 370-380 feet. Measured discharge 715 gal/min 8-13-40. Destroyed. <u>2/3/</u>
709	Kountz & Couch	Leonard Mickelson	1969	787	18 12	298 787	C	67	65 69.7	5- -69 4-24-74	T,G,110	Irr	Casing slotted 200-785 feet. <u>4/</u>
710	Frank Zboril	Powell	1964	500	14	500	C	68	62.8	4-25-74	T,G,110	Irr	Pump set at 160 feet.
711	do.	Crowell Drilling Co.	1973	792	20 12	350 792	C	67	63.7 60.7	do. 3- 3-75	T,G	Irr	Casing slotted 248-792 feet; measured discharge 841 gal/min 8-20-74. <u>3/</u>
712	Glen Roame, Jr.	Leonard Mickelson	1948	388	20 13 12 10	112 170 273 388	C	67	72.6	9-26-74	N	N	Casing slotted 105-124, 141-165, and 191-388 feet.
713	Kountz & Couch	do.	1965	690	18 --	-- 690	C	67	--	--	N	N	Casing slotted from about 200-690 feet.
714	Frank Zboril	Katy Drilling Co.	1971	1011	20 12	400 1011	C-E	71	96	12- -71	T,G,150	Irr	Casing slotted 298-1011 feet; reported pumping level 235 feet after 4 hours at 4300 gal/min 12-71. <u>1/3/</u>
801	Mancel Bard	Leonard Mickelson	1957	359	12	359	C	69	58.8	4-25-74	T,G,52	Irr	Casing slotted 138-155, 164-182, 196-210, 219-278, 285-290, and 296-357 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-62-802	Carl Johnson	Leonard Mickelson	1952	397	18 12	152 397	C	65	--	--	T,G	Irr	Casing slotted 137-160, 171-230, 248-270, 275-309, and 324-396 feet.
803	Sam G. Harrison	Crowell Drilling Co.	1964	404	12	404	C	65	--	--	T,G,50	Irr,R	Casing slotted 242-307, and 342-404 feet.
804	Mauritz Bros.	Pat Smith	1926	165	24 10	50 165	C	64	62.8	4-25-74	N	N	<u>3/</u>
805	Henderson Bros.	Crowell Drilling Co.	1955	398	16 12	252 398	C	62	41.4 46.1	3-22-65 3- 5-75	N	N	Casing slotted 138-394 feet. <u>2/3/</u>
806	Guy F. Stovall	--	--	58	4	58	C	65	57.2	4-25-75	N	N	
901	Paul Lampley	Crowell Drilling Co.	1952	228	8	228	C	70	--	--	T	N	Casing slotted 90-142 and 189-229 feet.
902	Gus Blankenburg	Leonard Mickelson	1959	392	18 14 12	120 164 392	C	75	56.0 54.3	4-25-74 3- 3-75	N	N	
903	R. B. Wallace	do.	1952	280	16 12 10	106 206 280	C	70	37.9	3-17-60	T,G,70	Irr	Casing slotted 71-107, 151-159, 194-232, and 254-279 feet.
904	do.	do.	1955	574	20 16 12	200 316 574	C	67	44.9 61.2	3-21-56 3-16-70	T,G,110	Irr	Casing slotted 162-289, 352-452, 467-527, and 553-573 feet; measured pumping level 126.5 feet at 1430 gal/min 7-18-55. <u>2/3/</u>
905	Ed Cook	American Water Co.	1945	576	18 12	132 576	C	63	46.6	1-28-60	T,G,150	Irr	
906	Kountz & Stewart	Leonard Mickelson	1954	434	18 14	197 434	C	63	--	--	T,G,70	Irr	Casing slotted 156-175, 188-216, 225-243, 247-275, 347-405, and 410-433 feet.
907	H. D. Allen	Otto Mickelson	1938	410	20 12	81 410	C	63	9.6	4-24-74	N	N	Casing slotted 29-39, 90-100, 153-168, 197-217, 254-279, and 370-410 feet; measured discharge 2060 gal/min 7-17-40. <u>3/</u>
908	A. R. Zieschang	Crowell Drilling Co.	1972	631	16 12	300 631	C	73	70.9	4-25-74	T,G,235	Irr	Casing slotted 300-631 feet; measured discharge 1152 gal/min 8-20-74. <u>1/3/</u>
909	do.	do.	1973	631	16 12	300 631	C	75	--	--	T,G,205	Irr	Casing slotted 175-228, 268-317, and 357-625 feet.
910	Humphreys	Collins & Whenlock	1950	8100	--	--	--	63	--	--	--	N	Oil test included in cross section. <u>4/</u>
63-101	Gus Blankenburg	Leonard Mickelson	1952	425	20 12	124 425	C	84	36.8	4- 7-60	T	Irr	Casing slotted 81-127, 140-173, 185-197, 206-217, 222-234, 249-263, 273-298, and 327-424 feet.
102	C. T. Blankenburg	Otto Mickelson	1910	80	12	80	C	84	31.5	3-17-60	T,G	Irr	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-63-103	- Rankin	Otto Mickelson	1925	65	24 12	35 65	C	84	37.9	5-13-74	N	N	Screened 35-65 feet. <u>3/</u>
104	Neal Banfield	do.	1951	272	14 13 12	58 208 272	C	80	--	--	T,G,110	Irr	Casing slotted 50-87 and 208-270 feet.
105	C. T. Blankenburg	do.	1918	342	24 10	49 342	C	80	19.1 29.8	8-30-35 3- 5-75	N	N	Screened 92-100, 226-271, 287-302, and 322-342 feet. <u>2/3/</u>
106	do.	do.	1939	408	24 18 12	60 103 408	C	80	20 21.5 56.0	5-30-40 4- 8-47 5-13-74	N	N	Casing slotted 60-103, 124-134, 161-169, 195-210, 240-280, 316-342, and 374-407 feet. <u>3/</u>
107	Priesmeyer Bros.	Leonard Mickelson	1962	414	18 16 14	147 245 414	C	88	72.0	4-29-74	T,G,150	Irr	Casing slotted 131-147, 171-258, 264-295, and 310-412 feet.
108	R. Holub	Texaco	--	--	4	--	--	84	--	--	J,E	S	
109	A. R. Zieschang	Leonard Mickelson	1967	478	18 14 12	248 455 478	C	85	82.6	5-13-74	T,G,70	Irr	Casing slotted 170-175, 193-261, 266-286, 292-326, 338-410, 416-436, and 446-477 feet.
110	do.	Otto Mickelson	1926	54	26 12	30 54	C	77	28.6	do.	T,G,15	Irr	Casing slotted 36-54 feet.
111	C. T. Blankenburg	Crowell Drilling Co.	1964	462	18 16	190 462	C	84	--	--	T,E,150	Irr	Casing slotted 216-462 feet.
201	J. K. Allen #1	Leonard Mickelson	1952	595	18 12	200 595	C	80	37.1 57.2	3-23-56 3-17-70	T,G,110	Irr	Casing slotted 116-143, 149-157, 166-204, 207-215, 219-235, 257-302, 321-334, 341-364, 398-413, 423-454, 462-482, and 492-594 feet. Measured pumping level 96.3 feet at 1760 gal/min 7-14-55. <u>2/3/</u>
202	Edmund Holub	do.	1951	226	20 18 16 15	60 154 198 226	C	84	28.1	6- 3-74	N	N	Casing slotted 60-132 and 162-224 feet.
203	Robert Rally	Otto Mickelson	1926	296	24 10	59 296	C	84	26.4	6-12-40	N	N	Screened 178-219 and 228-274 feet; destroyed.
204	Hlavinka Bros.	do.	1945	173	18 12	88 173	C	85	25.8	4- 4-47	T,E	Irr	Casing slotted 60-173 feet.
205	Kenneth Cox	Crowell Drilling Co.	1971	870	20 16 12	360 407 870	C	80	--	--	T,G,150	Irr	Casing slotted 225-235, 290-330, and 370-870 feet.

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-63-206	Hlavinka Bros.	Crowell Drilling Co.	1969	702	20 16 12	251 291 702	C	82	--	--	T,E,200	Irr	Casing slotted 251-702 feet. <u>4/</u>
207	--	--	1948	7558	--	--	--	84	--	--	--	N	Oil test included in cross section. <u>4/</u>
301	George Duffey	Leonard Mickelson	1952	613	18 12	151 613	C	78	--	--	T,G,150	Irr	Casing slotted 114-133, 143-283, 308-340, 377-395, 416-441, 449-464, 471-484, and 494-612 feet.
302	George Burke	Otto Mickelson	1934	126	24 12	46 126	C	80	--	--	T,G	Irr	Screened 48-68, 82-92, and 111-126 feet. <u>3/</u>
304	Mrs. S. H. Wigginton	Layne Bowler Co.	1910	180	30 9	65 180	C	79	18.9 24.3	6- 5-40 4-29-74	N	N	
305	Quintin Shult	Sam Shult	1925	165	26 9	35 165	C	77	21.6	do.	N	N	<u>3/</u>
306	do.	Leonard Mickelson	1968	339	16 12	300 339	C	77	45	12- -68	T,E,125	Irr	Casing slotted 80-339 feet.
307	George Burke	Katy Drilling Co.	1969	712	20 12	323 712	C	79	86	1-23-69	T,G,200	Irr	Casing slotted 230-712 feet; reported pumping level 200 feet after 4 hours at 3088 gal/min.
308	- Wigginton	F. W. Carr	1964	101	4	101	C	78	20.9	4-29-74	N	N	
401	O. V. Christensen	Johnson Water Well Service	1972	44	4	44	C	68	14	1972	J,E	D,S	
402	do.	--	--	44	2	44	C	67	10.7	6- 4-74	J,E	D	
403	H. D. Madsen	Franzina Water Well Contractors	1958	663	2	663	C	72	34 39.5	1958 3- 7-75	N	N	Casing slotted 651-663 feet.
404	do.	Johnson Water Well Service	1968	40	2	40	C	72	12.2	6- 4-74	N	N	Screened 32-40 feet.
501	Otto Bram	Leonard Mickelson	1953	527	20 12	154 527	C	74	--	--	T,G	Irr	Casing slotted 144-161, 199-297, 314-397, 410-469, and 483-526 feet.
502	O. W. Shaer	Walter Garrett, Jr.	1954	250	12	250	C	72	13.1	5-13-74	S,E,25	R	Casing slotted 100-250 feet.
503	Verner Petersen	Leonard Mickelson	1958	407	12	407	C	69	28.3 41.0	3-23-65 3- 9-72	T,G	Irr	Casing slotted 127-137, 158-194, 207-220, 235-258, 272-289, 291-307, and 313-406 feet. <u>2/3/</u>
504	Harry Shannon	do.	1964	687	18 12	250 687	C	68	42.2 71.0	2-27-67 3- 5-75	T,E	Irr	Casing slotted 167-198, 208-214, 219-225, 240-246, 256-310, 324-331, 339-343, 361-405, 414-456, 461-581, and 591-687 feet. Pumping level 101 feet at 2508 gal/min 3-15-67, <u>2/3/</u>

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
ZA-66-63-505	Kenneth Cox	Crowell Drilling Co.	1970	980	20 16 14 12	335 382 542 980	C	78	--	--	T,E	Irr	Casing slotted 290-980 feet.
506	Frank Ramsey	Leonard Mickelson	1967	651	16	651	C	80	93.0 71.3	5-14-74 3- 7-75	T,E,150	Irr	Casing slotted 152-167, 177-182, 203-213, 229-235, 240-264, 274-295, 305-325, 331-361, 366-382, 397-443, 449-536, 542-599, and 606-643 feet. Measured discharge 1572 gal/min 8-20-74.
601	Myatt & Meherns	Otto Mickelson	1910	170	26 9	40 170	C	74	17.9	6- 5-40	N	N	Old well worked over; recompleted with 10-inch casing.
602	J. L. Myatt	Leonard Mickelson	1952	527	18 12	150 527	C	74	29.2 23.1	3-23-65 5-14-74	T,G,72	Irr	Casing slotted 121-146, 155-165, 176-304, 312-351, 432-442, and 463-527 feet.
603	Myatt & Beck	Pat Smith	1920	160	18 10	50 160	C	74	18	6- -40	N	N	Destroyed. <u>3/</u>
604	J. L. Myatt	Otto Mickelson	1938	200	20 16 15	60 76 200	C	77	18	1940	T,G	Irr	Screened 40-50, 60-75, 107-167, and 183-193 feet. <u>3/</u>
605	do.	Leonard Mickelson	1955	209	18 16	155 209	C	77	25.3 21.2	3-23-65 3- 5-75	T,G,25	Irr	Casing slotted 65-145 and 155-207 feet. <u>2/3/</u>
606	Pete Shult	do.	1966	604	18 12	243 604	C	68	--	--	T,E,200	Irr	Casing slotted 150-165, 171-187, 195-209, 216-226, 239-253, 258-305, 314-318, 327-343, 348-402, 407-413, 429-444, 450-492, 507-567, and 582-602 feet.
607	Nora Mehrens	do.	1968	813	18 13	301 813	C	71	80 96.6	8- 1-68 5-14-74	T,E,150	Irr	Casing slotted 253-317, 339-361, 375-389, 429-487, 499-527, 543-569, 581-595, 623-643, 649-705, and 713-811 feet; pump at 150 feet. <u>4/</u>
608	do.	do.	1968	57	4	57	C	71	27.9	do.	N	N	Supplied water used for drilling irrigation well ZA-66-63-607.
609	J. L. Myatt	do.	1967	616	16	616	C	74	--	--	T,G	Irr	Casing slotted 239-260, 266-287, 302-321, 327-352, 367-383, 393-398, 414-420, 425-523, 534-544, and 549-611 feet.
701	Kountz & Couch	Crowell Drilling Co.	1968	700	16 12	300 700	C	63	--	--	T,E,170	Irr	Casing slotted 280-700 feet. <u>4/</u>
702	Lynner Bros.	Otto Mickelson	1943	398	20 12	89 398	C	62	68.5 37.4	9-24-74 3- 3-75	N	N	Casing slotted 89-109, 179-265, 286-306, 317-337, 345-355, and 370-392 feet; measured discharge 1652 gal/min 4-47.
803	O. W. Shaer	--	1959	--	12	--	C	63	56.0	5-14-74	N	N	

See footnotes at end of table.

Table 4.--Records of wells and test holes in Colorado, Lavaca, and Wharton Counties--Continued

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
2A-66-64-101	- Radley	Leonard Mickelson	1955	276	20 16	155 276	C	74	40.8	6-12-74	N	N	Casing slotted 115-142, 150-193, and 210-273 feet.
102	Hlavinka Farms	A. A. Wuensch	1957	314	12	314	G	75	--	--	T,E,40	Irr	Pump set at 120 feet; measured discharge 1078 gal/min 8-20-74. <u>3/</u>
104	Shult Estate	do.	1957	194	12	194	C	73	--	--	T,G,50	Irr	
105	- Radley	Leonard Mickelson	1973	575	20 12	255 575	C	74	--	--	T,G,110	Irr	Casing slotted 175-191, 203-247, 255-307, 309-325, 333-349, 395-459, 466-474, 491-531, and 537-569 feet.
106	Wade Roberts	do.	1968	638	18 12	300 638	C	75	70	12- -68	T,E,200	Irr	Casing slotted 180-204, 214-224, 232-252, 264-274, 278-286, 294-302, 308-340, 352-376, 410-420, 428-496, 510-526, 534-576, 582-602, and 606-636 feet. <u>1/4/</u>
201	- Radley	do.	1948	427	20	427	C	71	28.2	6-12-74	T,G,72	Irr	Casing slotted 80-102, 174-234, 246-269, 278-298, 312-330, 338-368, 378-393, and 401-427 feet.
402	J. L. Myatt	do.	1974	897	18 14	300 897	C	72	55.0	3- 3-75	T,E,200	Irr	Casing slotted 188-203, 255-299, 307-335, 345-353, 357-369, 379-405, 415-425, 437-497, 507-533, 559-577, 585-603, 633-689, 701-723, 737-793, 799-805, 819-835, and 863-883 feet. Measured discharge 3481 gal/min 8-20-74. <u>3/</u>
80-06-201	Ben Huseman	Crowell Drilling Co.	1954	503	14 12	74 503	C	58	--	--	N	N	Casing slotted 92-110, 158-280, and 330-503 feet.
202	Kountz & Couch	do.	1960	620	16 13	210 620	C	55	13.3	2-10-66	N	N	Casing slotted 177-210, 225-245, 280-332, 365-450, and 510-620 feet. <u>3/</u>
203	do.	do.	1968	652	16 12	300 652	C	55	--	--	T,E,200	Irr	Casing slotted 250-652 feet.
204	do.	Leonard Mickelson	1970	658	18 12	300 658	C	55	60	3- -70	T,E,200	Irr	Casing slotted 202-242, 252-262, 298-324, 344-437, 453-459, 479-485, 500-534, and 542-650 feet.
305	do.	Crowell Drilling Co.	1974	704	14 12	300 704	C	62	--	--	T,E,200	Irr	Casing slotted 181-704 feet; measured discharge 2288 gal/min 8-13-74. <u>3/</u>
306	Derral Garrett	Leonard Mickelson	1960	648	18 12	204 648	C	58	--	--	T,G,150	Irr	Casing slotted 174-232, 249-275, 282-305, 369-409, 419-439, 460-523, 529-578, and 590-614 feet.

1/ For drillers' logs of wells, see table 6.

2/ For additional water levels, see table 7.

3/

4/

For chemical analyses of water from wells, see table 8. Electrical logs in files of the U.S. Geological Survey and Texas Department of Water Resources, Austin, Tex.

→ Flows, head unknown.

Table 5.--Records of wells and test holes in Matagorda, Jackson, Fayette, DeWitt, Austin, Fort Bend, Victoria, and Gonzales Counties

Water-bearing unit: C--Chicot aquifer, J--Jasper aquifer.

Method of lift: E--electric; G--gasoline, butane, or diesel engine; N--none; S--submergible; T--turbine. Number indicates horsepower.

Use of water: D--domestic, Irr--irrigation, N--none, S--stock.

No.	Owner	Driller	Date completed	Depth of well (ft.)	Casing		Water-bearing unit	Altitude of land surface (ft.)	Water level		Method of lift	Use of water	Remarks
					Diameter (in.)	Depth (ft.)			Above (+) below land surface datum (ft.)	Date of measurement			
<u>MATAGORDA COUNTY</u>													
TA-65-57-103	Pierce Est. #1	Stanolind Oil & Gas Co.	1951	8607	--	--	--	68	--	--	--	N	Oil test, used in cross section.
80-07-308	Kountz #12	Magnolia Petroleum Co.	1954	5007	--	--	--	50	--	--	--	N	Oil test, used in cross section.
<u>JACKSON COUNTY</u>													
PP-66-52-401	Morton Bros.	Henry Cleveland	1954	680	20 12	-- 680	C	116	71.1 86.4	10-22-59 5-21-74	N	N	
61-103	Sam B. Heard	Crowell Drilling Co.	1970	426	16	426	C	81	--	--	T,G,70	Irr	Casing slotted 101-426 feet.
407	M. W. Mauritz, et al. #1	Sam G. Harrison	1954	6416	--	--	--	67	--	--	--	N	Oil test, used in cross section.
<u>FAYETTE COUNTY</u>													
JT-66-03-801	Burnsides #1	Hammann Oil & Refining Co.	1954	2858	--	--	--	420	--	--	--	N	Oil test, used in cross section.
17-101	Harry Vogelsang #1	Gulf Coast Leaseholds, Inc. and J. D. Watzlavick	1961	4326	--	--	--	370	--	--	--	N	Oil test, used in cross section.
<u>DEWITT COUNTY</u>													
HX-67-56-802	Mrs. M. A. Flaacke #1	Harkins & Co.	1957	5516	--	--	--	199	--	--	--	N	Oil test, used in cross section.
<u>AUSTIN COUNTY</u>													
AP-66-15-802	D. C. Hillboldt #1	Shell Oil Co.	1958	10884	--	--	--	200	--	--	--	N	Oil test, used in cross section.
<u>FORT BEND COUNTY</u>													
JY-65-43-103	Mabel Allen #1	Kennon & Cantrell	1951	5420	--	--	--	80	--	--	--	N	Oil test, used in cross section.
<u>VICTORIA COUNTY</u>													
YT-66-57-502	T. W. Nickel	--	--	500+	2	500	E <sup>1</sup>	172	1+	3-14-74	N	S	Measured flow 0.25 gal/min 3-14-74; produces some gas.
67-31-201	F. E. Carter	Leroy Richter Water Well Drilling	1970	248	4 2	--	J	360	105	12-31-70	S,E	D,S	Casing slotted.
<u>GONZALES COUNTY</u>													
KR-67-31-201	do.	do.	1970	248	4	248	G2	360	<sup>a/</sup> 105	do.	S,E	D,S	Pump set at 222 feet; casing slotted 238-248 feet.

<sup>a/</sup> Reported.



Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties

COLORADO COUNTY

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-04-503			WELL DW-66-18-601--Continued		
Owner: Stratford Hog Farm					
Driller: Pomykal Drilling Co.			Sand	8	579
Clay	18	18	Rock	2	581
Rock and shale	7	25	Gumbo	31	612
Shale	87	112	Sand	7	619
Sand	13	125	WELL DW-66-18-602		
Shale	8	133	Owner: City of Weimar #2		
Rock	1	134	Driller: A. E. Fawcett, Jr.		
Shale	53	187	Surface material	10	10
Sand	28	215	Sand and rock	41	51
Shale	55	270	Rock	1	52
Sand	5	275	Clay, sandy	5	57
Shale, sandy	5	280	Sand and rock	15	72
Sand	29	309	Rock	1	73
Shale	4	313	Sand and clay	9	82
Rock	20	333	Sand and rock	5	87
Shale	7	340	Clay	23	110
Rock	70	410	Clay and rock	25	135
Shale	14	424	Clay	5	140
WELL DW-66-18-601			Soapstone	7	147
Owner: City of Weimar #1			Sand and lime	1	148
Driller: Layne-Texas Co.			Sand and rock	5	153
Clay	6	6	Clay	37	190
Sand and layers of clay	56	62	Sand and clay	10	200
Rock	2	64	Gumbo	21	221
Clay, sandy	13	77	Sand and rock	24	245
Sand, muddy	59	136	Soapstone	8	253
Sand and layers of rock	7	143	Sand and rock	21	274
Clay, sandy	70	213	Clay	4	278
Rock	4	217	Shale and clay	41	319
Soapstone	10	227	Sand and rock	10	329
Rock	6	233	Gumbo	30	359
Sand, hard packed	8	241	Shale, hard	63	422
Rock	2	243	Sand and shale	20	442
Sand	32	275	Lime and gumbo	61	503
Shale and clay	206	481	Shale, hard	18	521
Rock	2	483	Sand and boulders	71	592
Soapstone	27	510	Gumbo	13	605
Sandstone, soft	23	533			
Sand, hard packed	23	556			
Shale, hard	13	569			
Rock	2	571			



Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-21-201			WELL DW-66-21-603--Continued		
Owner: Oscar Class					
Driller: L&N Drilling Co.					
Topsoil	2	2	Sand	60	95
Clay, red and iron ore	15	17	Shale, sticky	30	125
Clay, yellow	9	26	Sand	25	150
Sand	39	65	Shale	10	160
Clay, yellow	6	71	Sand	65	235
Sand	13	84	Shale	35	270
Clay, yellow	5	89	Sand	15	285
Sand	46	135	Shale	20	305
Sand, rock	5	140	Sand	15	320
Sand	4	144	Shale	55	375
Clay, red	50	194	Sand	20	395
Sand and rock	14	208	Shale, sticky	35	430
Clay, red	38	246	Sand	45	475
Sand and rock	57	303	Shale	10	485
Clay, red	8	311	Sand	47	532
			Shale, sticky	18	555
			Sand	67	622
			Shale	158	770
			Sand	35	805
			Shale	7	812
WELL DW-66-21-602			WELL DW-66-21-901		
Owner: G. E. Thomas, Jr.			Owner: Superior Oil Co.		
Driller: American Water Co.			Driller: Layne-Texas Co.		
Surface	10	10	Clay and gravel	38	38
Sand	20	30	Clay	20	58
Rock	15	45	Rock	2	60
Sand	25	70	Clay and gravel	9	69
Shale	15	85	Sand	29	98
Sand	100	185	Sand, hard	48	146
Shale	15	200	Clay and boulders	38	184
Sand	35	235	Sand, broken	28	212
Shale	15	250	Clay and boulders	31	243
Sand	25	275	Sand	46	289
Shale	15	290	Clay	15	304
Sand	25	315			
Shale	10	325			
Sand	30	355			
Shale	35	390			
Sand	14	504			
WELL DW-66-21-603			WELL DW-66-21-903		
Owner: Jimmy Adkins			Owner: G. Coeckler		
Driller: American Water Co.			Driller: American Water Co.		
Surface	15	15	Surface soil	30	30
Sand	5	20	Sand and gravel	45	75
Clay	15	35	Clay, white	115	190
			Sand, medium	20	210
			Shale, hard, and rock	45	255

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-21-903--Continued			WELL DW-66-28-802		
Sand	10	265	Owner: Clipson Bros.		
Shale, sticky	33	298	Driller: American Water Co.		
Sand	15	313	Surface	5	5
Shale, blue	27	340	Clay	25	30
Sand	18	358	Sand and rock	50	80
Shale and rock	23	381	Rock	8	88
Sand	6	387	Sand	26	114
Shale, sticky	103	490	Shale	12	126
Sand	14	504	Sand	14	140
WELL DW-66-28-701			Shale	45	185
Owner: George Burke, Jr.			Sand	35	230
Driller: Katy Drilling Co.			Shale	24	254
Topsoil	50	50	Sand and rock	4	258
Rock	8	58	Shale	50	308
Clay, rocky	7	65	Sand and rock	94	402
Rock	2	67	Shale	32	434
Clay, rocky	7	74	Rock	2	436
Sand, rocky	4	78	Sandrock	36	472
Clay strips	42	120	Shale, sticky	38	510
Rock and sand	15	135	Sand	59	569
Clay	57	192	WELL DW-66-28-903		
Sand, rocky	36	228	Owner: R. E. Smith		
Clay and small sand strips	19	247	Driller: Katy Drilling Co.		
Sand, rocky	17	264	Topsoil	12	12
Clay	13	277	Sand	41	53
Rock and sand	4	281	Clay	45	98
Clay	43	324	Rock	6	104
Sand, rocky	25	349	Sand and rock	24	128
Clay	64	413	Rock	4	132
Sand	69	482	Sand and rock	6	138
Clay	21	503	Rock	4	142
Sand and rock	20	523	Sand and rock	18	160
Clay	25	548	Clay	68	228
Sand	35	583	Sand and rock	42	270
Rock	27	610	Clay	18	288
Clay	40	650	Sand	11	299
Sand and rock	26	676	Clay	13	312
Clay	39	715	Sand	103	415
Shale	97	812	Clay	30	445
No record	36	848	Sand	23	468
			Clay	70	538
			Sand	42	580
			Clay	22	602

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-28-903--Continued			WELL DW-66-30-102		
Sand	38	640	Rock, sand, and clay	7	135
Clay	20	660	Sand and gravel	14	149
Sand	35	695	Clay and sand breaks	39	188
Bottom clay	--	695	Sand	11	199
WELL DW-66-28-905			Shale, hard	13	212
Owner: R. E. Smith #6			Sand	17	229
Driller: Katy Drilling Co.			Shale, sandy	5	234
Topsoil	26	26	Shale and sandy shale	44	278
Sand	19	45	Sand and layers of shale	45	323
Clay	21	66	Shale and boulders	35	358
Sand	20	86	Sand	25	383
Clay	14	100	Shale, sandy and hard layers	20	403
Rock	2	102	Sand	10	413
Sand, rocky	4	106	Shale	10	423
Rock	2	108	Shale and sandy shale	20	443
Clay	63	171	Sand and layers of hard shale	70	513
Sand, rocky	44	215	Sand	15	528
Clay	45	260	Shale, sandy and layers of sand	42	570
Sand, rocky	40	300	Sand, gravel and shale breaks	33	605
Clay	37	337	Shale	2	607
Sand	17	354	WELL DW-66-30-103		
Clay	40	394	Owner: Ralph Thomas		
Rock	3	397	Driller: Katy Drilling Co.		
Sand	28	425	Topsoil and clay	10	10
Clay	65	490	Quicksand	5	15
Sand	16	506	Sand and gravel	25	40
Rock	3	509	Clay and lime rock	30	70
Sand	81	590	Rock, hard	10	80
Sand, rocky	64	654	Rock and short sand strips	45	125
Bottom clay	--	654	Clay	13	138
WELL DW-66-30-102			Lime rock and clay	31	169
Owner: City of Eagle Lake #5			Sand and clay strips	22	191
Driller: Big State Water Wells, Inc.			Sand	16	207
Surface soil	4	4	Clay	3	210
Clay	13	17	Clay and small sand strips	92	302
Sand and gravel	39	56	Sand and rock	33	335
Clay, hard	8	64	Clay	10	345
Clay	14	78	Sand with clay strips	2	347
Rock	10	88	Sand and rock	23	370
Rock, sand, gravel; and clay	25	113	Sand, rocky	120	490
Sand	10	123	Bottom clay	--	490
Rock and gravel	5	128			

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-30-201			WELL DW-66-35-303		
Owner: Payne Brothers			Owner: John J. Williams		
Driller: L&N Drilling Co.			Driller: Katy Drilling Co.		
Topsoil	2	2	Topsoil and clay	39	39
Clay, yellow	11	13	Sand	16	55
Clay, red	9	22	Rock	3	58
Sand	13	35	Lime rock and sand	14	72
Sand and gravel	17	52	Clay	30	102
Clay, red and yellow	33	85	Sand	28	130
Rock	16	101	Clay	35	165
Clay, red and yellow	17	118	Rock limestone	6	171
Rock	5	123	Clay and sand strips	39	210
Lime rock and clay	3	126	Clay	63	273
Sand	6	132	Sand and rock	31	314
Rock	4	136	Clay	11	325
Sand	18	154	Sand	12	337
Clay, yellow	8	162	Clay	45	382
			Sand	17	399
			Clay	16	415
WELL DW-66-30-401			Sand and rock	35	450
Owner: Wharton Turf Grass			Clay	16	466
Driller: L&N Drilling Co.			Rock	10	476
Topsoil	5	5	Shale	14	490
Clay, yellow	4	9	Shale, sandy	14	504
Clay, red	21	30	Sand and shale strips	80	584
Sand	11	41	Shale	16	620
Gravel	19	60	Shale, sandy	33	653
Clay, yellow	27	87	Sand	18	671
Lime rock	3	90	Shale	24	705
Sand and lime rock	3	93	Sand with shale strips	32	737
Lime rock	15	108	Shale	23	760
Sand	7	115	Sand and rock	45	805
Sand and rock	3	118			
Rock and yellow clay	4	122	WELL DW-66-36-101		
Sand	2	124	Owner: Dale Hunt		
Rock and sand	3	127	Driller: A. H. Justman		
Sand	4	131	Topsoil	34	34
Rock and sand	9	140	Sand	11	45
Sand	15	155	Rock	13	58
Rock	1	156	Clay	24	82
Sand	9	165	Sand	10	92
Clay, yellow	1	166	Clay	8	100
			Sand	17	117
			Clay	63	180
			Sand	30	210

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-36-101--Continued			WELL DW-66-37-203		
Clay	75	283	Owner: Lester Bunge		
Rock	2	285	Driller: Katy Drilling Co.		
Sand and rock	55	340	Topsoil and clay	32	32
Clay	42	382	Sand	3	35
Sand	11	393	Sand and gravel	23	58
Clay	40	433	Sand	10	68
Sand	64	497	Clay	7	75
Clay	63	560	Sand, gravel, and rocks	30	105
Sand	27	587	Clay	25	130
Clay	16	603	Sand	7	137
Rock	1	604	Clay and sand rocks	21	158
Clay	22	626	Sand	14	172
Sand	10	636	Clay and sand strips	11	183
Clay	7	643	Rock and sand strips	5	188
Sand and rock	17	660	Sand, hard, and hard rock	6	194
Clay	12	672	Clay	4	198
Sand and rock	11	683	Sand	12	210
Clay	24	707	Clay, red	27	237
Sand and rock	13	720	Sand and rocks	28	265
Clay	8	728	Sand and clay strips	30	295
Sand and rock	13	741	Clay	83	378
Clay	8	749	Sand and rock	13	391
Sand and rock	35	784	Clay	19	410
Bottom clay	--	784	Sand and shale strips	51	461
WELL DW-66-37-201			WELL DW-66-37-601		
Owner: Hiavinka Brothers			Owner: R. A. Shoop		
Driller: Katy Drilling Co.			Driller: Layne-Texas Co.		
Surface	32	32	Soil, black	3	3
Sand and gravel	20	52	Clay, sandy	17	20
Clay	10	62	Sand and gravel	17	37
Sand and gravel	78	140	Gravel	71	108
Rock and sand	60	200	Boulders	21	129
Clay and rock	24	224	Gravel, broken	71	200
Sand and lime rock	40	264			
Clay, lime rock, and sand strips	21	285	WELL DW-66-37-703		
Clay	51	336	Owner: Engstrom Brothers		
Lime rock, hard, and clay	23	359	Driller: Crowell Brothers		
Clay and lime rock	121	480	Clay	14	14
Sand	20	500	Sand	20	34
Clay	10	510	Clay	14	48
Sand and rock	60	570	Gravel	28	76
Bottom clay	--	570	Boulders	21	97
			Hard	6	103





Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL DW-66-44-601			Well DW-66-44-601--Continued		
Owner: Bill Frnka			Boulders	11	71
Driller: Crowell Brothers			Gravel	11	82
Clay	12	12	Boulders	8	90
Sand	6	18	Rock	2	92
Clay	12	30	Sand	4	96
Gravel	30	60			

LAVACA COUNTY

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-66-25-701			WELL RY-66-33-403--Continued		
Owner: Dr. Harvey Renger			Shale	66	636
Driller: A.C.C. Vacuum Trucks			Shale, sandy	14	650
Clay	110	110	Clay, sandy	30	680
Sand	70	180	Clay	140	820
Clay	36	216	Shale, sandy	20	840
Sand	27	243	Sand	17	857
Clay	51	294	Shale, sandy	79	936
Sand	51	345	Sand, hard	21	957
Clay	71	416	Shale, sandy	17	974
Sand	36	452			

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-66-33-403			WELL RY-66-33-504		
Owner: City of Hallettsville			Owner: City of Hallettsville		
Driller: Texas Water Wells Inc.			Driller: Layne-Texas Co.		
Surface	7	7	Surface soil	2	2
Sand, rock	8	15	Clay	10	12
Clay	5	20	Sand	8	20
Sand, rock	20	40	Clay	41	61
Clay	80	120	Sand, coarse and clay streaks	29	90
Sand with hard streaks	48	168	Clay	4	94
Clay	4	172	Sand and rock streaks	23	117
Rock	1	173	Clay	153	270
Sand, rock	7	180	Clay, sandy	35	305
Clay	76	256	Sand, shale streaks and rock streaks	56	361
Sandy clay	46	302	Clay and sandy clay	79	440
Clay	21	323	Clay, sandy and sand streaks	22	462
Sand, hard	38	361	Sand	30	492
Sand and clay streaks	29	390	Shale	6	498
Clay	29	419	Sand	14	512
Sand, hard, with clay streaks	77	486	Clay	41	553
Clay	24	510	Sand	10	563
Sand, cut good	20	530	Shale	7	570
Clay	15	545	Shale and sand streaks	8	578
Sand, clay streaks	25	570	Shale	43	621
			Shale, hard	31	662
			Shale	114	776

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-66-33-504--Continued			WELL RY-66-41-903--Continued		
Shale, sandy and shale	36	812	Rock	1	151
Sand, coarse, white	14	826	Water, sand	19	170
Shale	44	870	Rock	2	172
Shale, sandy	58	928	Clay, blue	80	252
Sand and shale streaks	35	963	Rock	5	257
Shale	5	968	Water, sand	38	295
Shale and sandy shale	91	1,059	Clay	13	308
Sand	15	1,074	Water, sand	27	335
Shale and sandy shale	261	1,335			
WELL RY-66-35-901			WELL RY-66-43-301		
Owner: Mrs. Vivian Cloninger well 1 Driller: Katy Drilling Co.			Owner: Miller Brothers Driller: A. H. Justman		
			Surface soil	38	38
Topsoil	15	15	Clay	49	87
Sand	66	81	Sand and clay streaks	35	122
Clay	19	100	Clay	29	151
Sand	36	136	Sand	61	212
Clay	91	227	Clay	63	275
Sand	20	247	Rock	3	278
Clay	39	286	Clay	36	314
Sand, rocky	38	324	Sand	26	340
Clay	20	344	Clay	36	376
Sand	24	368	Sand	10	386
Clay	40	408	Clay	64	450
Sand	5	413	Sand	6	456
Clay	16	429	Clay	63	519
Sand, rocky	9	438	Sand	10	529
Clay	32	470	Clay	5	534
Sand	20	490	Shale, sandy	25	559
Clay	129	619	Clay	8	567
Sand	11	630	Shale, sandy	18	585
Clay	186	816	Clay	13	598
Sand, rocky	24	840	Shale	19	617
Shale, sandy	--	840	Clay	4	621
			Sand and rock	21	642
WELL RY-66-41-903			Clay	18	660
Owner: Hermes Brothers			Shale, sandy	40	700
Driller: Schumacher & Sons			Clay	20	720
Topsoil	3	3	Sand and rock	53	773
Clay	39	42	Clay	201	974
Sand, rock	28	70	Sand and rock	62	1,036
Sand, clay	20	90			
Water, sand	16	106			
Clay	44	150			

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-66-43-810			WELL RY-66-44-402--Continued		
Owner: Morton Brothers			Clay	15	256
Driller: Katy Drilling Co.			Sand, rocky	57	313
Surface and clay	66	66	Clay	37	350
Sand and gravel	15	81	Sand	39	389
Rock and clay	54	135	Clay	44	433
Clay	10	145	Rock and sand strips	21	454
Sand and rock	30	175	Clay and sand strips	75	529
Clay	16	191	Sand	35	564
Sand	10	201	Shale	12	576
Clay	17	218	Sand and rock	24	600
Sand and rock	14	232	Shale	17	617
Clay	18	250	Sand and rock	26	643
Sand	19	269	Clay and rock with sand strips	27	670
Clay	34	303	Clay	14	784
Sand	5	308	Sand and rock	8	792
Clay	16	324	Clay	17	809
Sand	57	381	Sand	71	880
Clay	29	410			
Sand and rock	40	450	WELL RY-66-50-502		
Clay	22	472	Owner: Henderson Brothers #11		
Sand and rock	58	530	Driller: Layne-Texas Co.		
Clay	23	553	Surface soil	1	1
Sand	33	586	Clay	15	16
Clay	36	622	Sand	10	26
Sand	17	639	Clay	10	36
Clay	15	654	Sand	10	46
Sand	20	674	Rock	4	50
Clay	44	718	Sand, hard, and lime	10	60
Sand	26	744	Shale, sandy	34	94
Clay	39	757	Sand	24	118
Sand	11	768	Shale, sandy	7	125
Clay	100	868	Sand	41	166
			Shale, sandy	21	187
WELL RY-66-44-402			Shale	42	229
Owner: A. G. Fajkus			Shale and sand streaks	20	249
Driller: Katy Drilling Co.			Sand	10	259
Topsoil and clay	35	35	Shale, sandy, and lime	26	285
Sand	26	61	Shale	14	299
Clay	30	91	Shale, sandy	16	315
Sand, rocky	10	101	Sand	17	332
Clay	6	107	Shale	52	384
Sand	8	115	Sand	18	402
Clay	50	165	Shale, sandy	23	425
Sand, rocky	76	241	Sand	23	448

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-66-50-502--Continued			WELL RY-67-31-602		
Shale	36	484	Owner: City of Moulton		
Shale, sandy	36	520	Driller: Layne-Texas Co.		
Shale	41	561	Topsoil	3	3
Shale, sandy	9	570	Caliche	40	43
Shale	66	636	Clay	207	250
Shale, sandy	2	638	Sand	10	260
Shale	73	711	Clay, sandy	22	282
Shale, hard, and lime	36	747	Sand and clay breaks	38	320
Shale, sandy, and sand streaks	20	767	Shale and sandy shale	29	349
Shale	12	779	WELL RY-67-32-701		
Shale, sandy, and sand streaks	12	791	Owner: Frank Petras		
Shale	50	841	Driller: Johnnie Maresh		
Shale, sandy	12	853	Topsoil, black	2	2
Shale	19	872	Clay, tan	26	28
Shale, hard, sandy	9	881	Clay, white	28	56
Shale	89	970	Clay, pink	16	72
Shale, sandy	25	995	Clay, tan	38	110
Shale	77	1,072	Clay, blue	40	150
WELL RY-67-31-601			Rock, sand (little)	50	200
Owner: City of Moulton			Clay, blue	60	260
Driller: Layne-Texas Co.			Clay, white	80	340
Soil and hard caliche	45	45	Clay, blue	80	420
Shale and clay	125	170	Rock	40	460
Shale	36	206	Clay, blue	60	520
Sand	14	220	Rock	60	580
Shale	79	299	Clay, blue	77	657
Sand and shale layers	56	355	Rock	3	660
Shale, soft, and medium hard layers	193	548	Clay, blue	40	700
Shale, soft	14	562	Rock	40	740
Shale and hard lime layers	41	603	Water, sand	50	790
shale, sticky	12	615	WELL RY-67-39-302		
Shale, soft	67	682	Owner: G. G. Nollkamper		
Shale and hard lime layers	88	770	Driller: H&S Drilling Co.		
Shale, sandy	45	815	Clay	10	10
Shale and lime	27	842	Sand	7	17
Shale	18	860	Sand streaks, shale and hard streaks	53	70
Shale and sand layers	41	901	Shale and hard streaks	15	85
Shale	39	940	Sand	10	95
Shale, sandy	35	975	Sand and hard streaks	17	112
Shale	28	1,003	Shale	38	250
			Lime streaks and shale	65	315
			Sand and shale streaks	22	337

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-67-39-302--Continued			WELL RY-67-39-509		
Shale	28	365	Owner: City of Shiner		
Sand	20	385	Driller: Layne-Texas Co.		
Shale	17	402	Topsoil	1	1
Sand	28	430	Clay, yellow, sandy	10	11
Shale	30	460	Clay, red, sandy	42	53
Sand	42	502	Sand, rock and clay streaks	38	91
Shale	5	507	Shale, sand and rock streaks	64	155
Sand	65	572	Shale, sandy shale streaks	65	220
WELL RY-67-39-304			Sand and rock (cut good)	29	249
Owner: H. R. Seidenburger			Shale, sandy shale	55	304
Driller: Leroy Richter			Shale, sandy and sand streaks	33	337
Topsoil	3	3	Sand	5	342
Clay	6	9	Sand, shale, sand streaks	63	405
Sand, rock/clay streaks	13	22	Sand, shale streaks	24	429
Blue shale	20	42	Shale, sandy and sand streaks	30	459
Brown-blue-white shale	123	165	Sand, shale streaks	46	505
Sand	10	175	Shale, sandy and sand streaks	37	542
Brown-blue-white shale	35	210	Sand, shale, gravel layers	25	567
Sand	10	220	Shale, sandy and gravel	43	610
Brown-blue-white shale	160	380	Sand and shale layers	43	653
Sand/shale streaks	35	415	Shale, sandy and shale	21	674
Sandy shale	72	487	Shale, sandy shale	34	708
Hard shale	78	565	Shale, sand streaks	22	730
Sand, coarse blue	18	583	Sand, shale layers	12	742
Shale	24	607	Shale, sandy	13	755
Sand, coarse blue and shale streaks	38	645	Sand and shale streaks	19	774
Shale	9	654	Shale, sandy	6	780
WELL RY-67-39-402			Sand and shale layers	11	791
Owner: Q. B. Schaefer			Shale, sandy	6	797
Driller: O. T. Davis & Sons			Sand and shale layers	37	834
Clay and sandrock	40	40	Shale, sandy and sand	11	845
Sand	15	55	Sand and shale layers	22	867
Clay	15	70	Shale, sandy	11	878
Sand, coarse	15	85	Sand and shale layers	18	896
Shale with hard streaks	95	180	Rock	1	897
Sand, hard	60	240	Sand (cut good)	7	904
Sand, broken	35	275	Shale, sandy	3	907
Sand	58	333	Shale, hard	13	920
			Sand and shale streaks	15	935
			Shale, hard	20	955
			Sand	8	963
			Shale and sand layers	30	993
			Shale, hard	14	1,007

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL RY-67-39-510			WELL RY-67-40-401--Continued		
Owner: City of Shiner			Sandrock		
Driller: Layne-Texas Co.			55 255		
Soil	4	4	Sand, gray, thin streaks	18	273
Sand and clay	15	19	Clay, red and streaks, blue shale	127	400
Clay	15	34	Sand, thin streaks	2	402
Clay and rock clusters	123	157	Clay, red and white	84	486
Shale	62	219	Rock	14	500
Sand and shale streaks	20	239	Clay, white, dense and pale blue sticky shale	82	582
Shale, rock streaks	10	249	Sand, gray	32	614
Sand (cut good)	21	270	Sand, gray	21	641
Shale and sandy shale	115	385	Shale	19	660
Sand	11	396	WELL RY-67-47-604		
Shale	28	424	Owner: City of Yoakum, park well 1		
Sand	18	442	Driller: Dawson Drilling Co.		
Shale	150	592	Sand	5	5
Shale and sand layers	15	607	Caliche	7	12
Shale, rock streaks	49	656	Clay	18	30
Sand	9	665	Sand, soft	20	50
Shale	11	676	Sand, hard	40	90
Sand and shale streaks	33	709	Clay	30	120
Shale	42	751	Sand	60	180
Sand and shale streaks	11	762	Sand and hard lime	30	210
Shale	20	782	Sand and gravel, hard	40	250
Sand and shale streaks	12	794	Lime and shale	20	370
Shale, sand streaks	21	815	Rock, red, hard	40	410
Shale, hard	24	839	Sand and gravel, hard	60	470
Sand and shale layers	34	873	Clay and shale, soft	55	525
Shale	21	894	Shale, soft	50	575
Sand	17	911	Sand, rough	10	585
Shale, sandy shale	79	990	Shale, soft	45	630
WELL RY-67-40-401			Shale, rough	10	640
Owner: Charles Chovanetz			Shale, soft	10	650
Driller: Shellman Drilling Co.			Sand	35	685
Soil	7	7	Shale, brown, soft	45	730
Clay	3	10	Sand, hard or shale	20	750
Sand, yellow	50	60	Shale, soft	30	880
Sand, gray	13	73	Sand and gravel	105	985
Rock	2	75	Shale	20	1,005
Clay, yellow	26	101	Sand, hard	40	1,045
Sandrock	19	120	Sand and shale	160	1,205
Clay, white and yellow	13	133			
Sandrock	22	155			
Clay, white and yellow	45	200			



Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL ZA-65-49-404--Continued			WELL ZA-66-31-906		
Sand	39	503	Owner: Tenn. Gas Trans. Co., East Bernard plant #3		
Shale	4	507	Driller: McMasters & Pomeroy		
Sandy shale	8	515	Clay and boulders	9	9
Shale	10	525	Caliche	11	20
Sand	18	543	Sand and gravel	31	51
Hard sandy shale	12	555	Clay	49	100
Sand, broken	32	587	Sand and gravel	40	140
Shale	10	597	Clay	9	149
Hard sandy shale	18	615	Gravel and boulders	58	207
Sand	31	646	Shale	34	241
Sand, broken	24	670	Sand, hard	33	274
Sandy shale	7	690	Shale and hard sand	55	329
Sand	28	718	Shale	12	341
Shale	37	755	Sand and shale	36	377
Sand	20	775	Rock	1	378
Shale	15	790	Shale and boulders	9	387
Sand	23	813	Sand	27	414
Shale	50	863	Clay	58	472
Hard shale	7	870	Shale	72	544
Sandy shale	8	878	Rock	2	546
Hard sandy shale	19	897	Shale and boulders	60	606
Rock	2	899	Sand	8	614
Sand, gravel, and lime	71	970	Shale	28	642
Hard sandy shale	15	985	Clay and boulders	9	651
Sand	27	1,012	Sand	12	663
Hard sandy shale	7	1,019	Clay	17	680
Sand	24	1,043	Clay and boulders	56	736
Shale	7	1,050	Sand	10	746
Sand	21	1,071	Clay and boulders	12	758
Hard shale	29	1,100	Sand	10	768
			Shale	11	779
			Sand	6	785
			Clay	19	804
			Rock	2	806
			Shale	4	810
			Sand	6	816
			Rock	1	817
			Sand	13	830
			Rock	2	832
			Sand	4	836
			Clay	18	854
			Sand	46	900
			Clay	10	910
			Sand	5	915
WELL ZA-66-31-701					
Owner: Tom Arit					
Driller: Johnson & Johnson Drilling & Supply Co.					
Sand and soil	18	18	Shale	4	810
Gravel	18	36	Sand	6	816
Sand	2	38	Rock	1	817
Clay and soil	52	90	Sand	13	830
Coarse sand	50	140	Rock	2	832
Gravel	20	160	Sand	4	836
Clay and gravel	60	220	Clay	18	854
Clay and sand	40	260	Sand	46	900
Clay	60	320	Clay	10	910
Clay and sand	49	369	Sand	5	915



Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL ZA-66-31-906--Continued			WELL ZA-66-39-601		
Shale	3	918	Owner: Mrs. W. A. Northington		
Sand	3	921	Driller: Leonard Mickelson		
Shale	13	934	Soil and clay	12	12
Sand	39	973	Sand	15	27
Shale	2	975	Shale	5	32
Sand	15	990	Sand, rocky	22	54
Shale	10	1,000	Sand and shale	29	82
			Sand	9	91
			Shale	53	144
WELL ZA-66-38-603			Sand	28	172
Owner: Arthur Anderson			Shale	10	182
Driller: Katy Drilling Co.			Sand, rocky	28	210
Surface clay	19	19	Shale	3	213
Sand	13	32	Sand	7	220
Clay	19	51	Shale	20	240
Sand, gravel	72	123	Sand, rocky	62	302
Clay	11	134	Shale	7	309
Sand, gravel	34	168	Sand, rocky	27	336
Clay, sand breaks	16	184			
Sand, gravel	18	202	WELL ZA-66-45-608		
Clay, rock	30	232	Owner: Henry Zboril		
Sand, rock	47	279	Driller: Katy Drilling Co.		
Clay	11	290	Surface clay	28	28
Sand, rock	54	344	Sand	18	46
Clay	22	366	Clay	11	57
Sand, rock	37	403	Sand, gravel	22	79
Clay	9	412	Clay	5	84
Sand, rock	6	418	Sand, gravel	71	155
Clay	24	442	Clay	10	165
Sand, rock	43	485	Sand and rock	5	170
Clay	60	545	Clay	8	178
Sand, rock	8	553	Sand and rock	14	192
Clay	14	567	Clay	3	195
Sand, rock	21	588	Hard rock	4	199
Clay	40	628	Clay	14	213
Sand, rock	23	651	Sand and rock	10	223
Clay	38	689	Clay	16	239
Sand and rock	56	745	Sand and rock	5	244
Clay	10	755	Clay	8	252
Sand, rock	17	772	Sand and rock	5	257
Clay	40	812	Clay	22	279
Sand	18	830	Sand and rock	42	321
Clay	23	853	Clay	9	330
Sand	11	864	Sand and rock	22	352
Clay	36	900			

Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL ZA-66-45-608--Continued			WELL ZA-66-47-412		
Clay	44	396	Owner: J. E. Heyne Estate		
Sand and rock	18	414	Driller: Leonard Mickelson		
Clay	7	421	Soil and clay	38	38
Sand and rock	54	475	Sand and gravel	43	81
Clay	78	553	Clay	12	93
Sand and rock	58	611	Lime rock	2	95
Clay	10	621	Clay	34	129
Sand and rock	11	632	Gravel and sand	30	159
Clay	31	663	Clay, rocky	58	217
Sand and rock	16	679	Rocky sand	62	279
Clay	21	700	Rock	9	288
			Rocky	6	294
			Sand, rocky	38	332
WELL ZA-66-46-203			WELL ZA-66-48-404		
Owner: Pryor Ranch			Owner: City of Wharton #2 (old #5)		
Driller: Leonard Mickelson			Driller: Layne-Texas Co.		
Soil and clay	12	12	Topsoil and clay	26	26
Sand and gravel	111	123	Clay, red	30	56
Lime and rock	23	146	Sand and gravel	45	101
Gravel	46	192	Clay, red	74	175
Rock	7	199	Sand	10	185
Gravel and rock	37	236	Clay	21	206
No record	15	251	Sand layers and rock	17	223
			Shale, sandy and shale	57	280
WELL ZA-66-46-701			Sand and layers of rock	18	298
Owner: Gene Reitz			Shale	11	309
Driller: Crowell Drilling Co.			Sand, gravel, and rocks	35	344
Clay	30	30	Sand streaks and shale	23	367
Sand	40	70	Shale, sandy, and streaks of sand rock	24	391
Clay	54	114	Sand	16	407
Gravel	11	125	Shale, sandy	7	414
Rock	1	126	Sand	19	433
Sand	4	130	Shale, sandy, lime and streaks of sand	30	463
Rock	1	131	Sand and layers of hard lime	25	488
Sand and hard streaks	23	154	Shale, hard	12	500
Clay	8	162	Sand	6	506
Sand and gravel	78	240	Shale	6	512
Hard	20	260	Sand and layers of rock and lime	38	550
Sand	7	267	Sand	34	584
Rock, hard	8	275	Sand and lime	10	594
Sand and hard streaks	35	310	Shale	6	600
Hard	22	332			



Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL ZA-66-53-508			WELL ZA-66-54-603		
Owner: M. L. Bain			Owner: City of El Campo #3		
Driller: Crowell Drilling Co.			Driller: Otto Mickelson		
Clay	34	34	Surface soil	8	8
Sand	14	48	Sand	30	38
Clay	45	93	Clay	8	46
Sand and gravel	32	125	Clay and layers of sand	17	63
Shale	10	135	Sand	5	68
Sand	21	156	Clay and layers of sand	25	93
Shale	32	188	Clay	38	131
Sand	32	220	Sand	7	138
Shale	15	235	Clay and layers of sand	11	149
Rock	7	242	Sand	5	154
Hard shale	28	270	Gravel	8	162
Sand and hard shale	20	290	Sand	5	167
Shale	30	320	Clay and lime rock	21	188
Sand	12	332	Sand	11	199
Rock	2	334	Clay	3	202
Shale	13	347	Sand	18	220
Sand and hard shale	23	370	Clay	24	244
Shale	15	385	Sand	5	249
Sand	6	391	Clay and soft rock	15	264
Hard	4	395	Clay, rocky	25	289
Sand	40	435	Sand, rocky	4	293
Rock	5	440	Clay, rocky	49	342
Sand and hard shale	30	470	Sand	12	354
Shale	36	506	Rock, soft	1	355
Sand	14	520	Sand	36	391
Shale	6	526	Rock	1	392
Sand and hard shale	29	555	Gumbo, rocky	16	408
Hard	9	564	Rock, soft	8	416
Sand and hard shale	20	584	Sand	6	422
Shale	64	648	Gumbo and boulders	18	440
Sand	32	680	Sand	5	445
Shale	8	688	Gumbo, boulders, and sand	35	480
Sand	16	704	Sand	6	486
Shale	8	712	Gumbo, boulders, and sand	17	503
Sand	23	735	Sand	16	519
Shale	6	741	Gumbo, boulders, and sand	9	528
			Sand	16	544
			Gumbo, boulders, and sand	13	557
			Gumbo	7	564
			Sand	19	583
			Gumbo, hard	12	595
			Pack sand	5	600





Table 6.--Drillers' logs of wells in Colorado, Lavaca, and Wharton Counties--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
WELL ZA-66-62-714--Continued			WELL ZA-66-64-103--Continued		
Sand, rock	22	875	Clay layers and gravel	31	191
Clay	15	890	Clay	32	223
Sand	43	933	Clay layers and gravel	63	286
Clay	7	940	Clay	10	296
Sand, rock	37	977	Sand and gravel	97	393
Clay	13	990	Clay	25	418
Sand, rock	21	1,011	Sand	80	498
			Clay	9	507
WELL ZA-66-62-908			Sand and gravel	57	564
Owner: A. R. Zieschang, Jr.			Clay	15	579
Driller: Crowell Drilling Co.			Sand	16	595
Clay	12	12	Clay	8	603
Sand	42	54	Rocky sand	31	634
Clay	14	68			
Sand	12	80			
Clay	32	112			
Sand	70	182			
Shale	32	214			
Sand	34	248			
Shale	20	268			
Sand	14	282			
Shale	15	297			
Sand	13	310			
Hard shale	10	320			
Sand	16	336			
Shale	29	365			
Sand	23	388			
Shale	4	392			
Sand	12	404			
Shale	106	510			
Sand and hard shale	40	550			
Shale	12	562			
Sand and hard shale	15	577			
Shale	23	600			
Sand and hard shale	32	632			
Rock	3	635			
Sand	5	640			
WELL ZA-66-64-103					
Owner: Wade Roberts					
Driller: Leonard Mickelson					
Soil and clay	101	101			
Sand and gravel	36	137			
Clay	23	160			







Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL DW-66-23-701--Continued		WELL DW-66-28-701		WELL DW-66-28-702--Continued	
Jan. 6, 1974	23.8	Owner: G. R. Burke		Oct. 18, 1968	119.2
Mar. 5, 1974	21.2	Aquifer: Evangeline-Chicot		Dec. 20, 1968	105.7
Mar. 6, 1975	20.6	Mar. 20, 1956	92.6	Feb. 21, 1969	99.2
WELL DW-66-28-402		Mar. 19, 1957	94.4	Apr. 18, 1969	97.4
Owner: J. Schmidt		Apr. 2, 1958	93.9	June 20, 1969	129.8
Aquifer: Chicot-Evangeline		Mar. 10, 1960	93.2	Aug. 22, 1969	131.0
Dec. 31, 1959	116.5	Feb. 25, 1963	97.2	Oct. 18, 1969	120.7
Mar. 12, 1961	116.5	Nov. 7, 1973	128.5	Dec. 13, 1969	112.2
Feb. 25, 1963	112.3	WELL DW-66-28-702		Feb. 12, 1970	103.7
Feb. 19, 1964	121.6	Owner: G. R. Burke		Apr. 17, 1970	99.7
Mar. 5, 1965	117.3	Aquifer: Chicot-Evangeline		June 23, 1970	125.7
Feb. 10, 1966	126.6	Mar. 20, 1956	88.9	Aug. 7, 1970	124.7
Feb. 14, 1967	127.4	Mar. 19, 1957	91.2	Oct. 13, 1970	125.8
Feb. 9, 1968	126.0	Apr. 2, 1958	89.8	Dec. 15, 1970	110.8
Mar. 15, 1972	126.8	Mar. 10, 1960	89.4	Apr. 15, 1971	130.2
Mar. 9, 1973	121.3	Mar. 12, 1961	89.6	Mar. 15, 1972	113.0
Mar. 4, 1974	128.2	Mar. 11, 1962	93.9	Mar. 9, 1973	103.6
WELL DW-66-28-501		Feb. 25, 1963	93.2	Mar. 4, 1974	101.8
Owner: R. E. Smith		Feb. 19, 1964	95.9	Mar. 7, 1975	102.5
Aquifer: Evangeline-Chicot		Mar. 5, 1965	95.8	WELL DW-66-28-802	
Feb. 25, 1963	105.8	July 19, 1965	130.4	Owner: Clipson Brothers	
Feb. 19, 1964	117.3	Sept. 27, 1965	127.9	Aquifer: Chicot-Evangeline	
Mar. 5, 1965	115.7	Nov. 15, 1965	109.3	Mar. 20, 1956	85.7
Feb. 13, 1967	121.7	Jan. 26, 1966	99.8	Mar. 19, 1957	87.8
Apr. 15, 1971	146.2	Feb. 10, 1966	99.0	Apr. 2, 1958	86.8
Mar. 9, 1973	122.0	Mar. 24, 1966	99.7	Mar. 9, 1960	85.8
Nov. 14, 1973	135.3	Apr. 20, 1966	99.7	Mar. 10, 1960	85.7
Mar. 5, 1975	120.7	May 19, 1966	99.7	Mar. 12, 1961	85.7
WELL DW-66-28-502		June 17, 1966	100.0	Mar. 11, 1962	85.2
Owner: R. E. Smith		July 29, 1966	111.8	Feb. 25, 1963	85.8
Aquifer: Evangeline-Chicot		Aug. 26, 1966	113.6	Nov. 7, 1973	102.5
Sept. 2, 1948	171	Sept. 23, 1966	119.1	Mar. 5, 1975	99.4
Nov. 24, 1959	116.2	Oct. 21, 1966	115.3	WELL DW-66-28-901	
Nov. 14, 1973	156.0	Dec. 22, 1966	115.6	Owner: Richard Clipson	
Mar. 5, 1975	130.1	Feb. 14, 1967	112.8	Aquifer: Chicot-Evangeline	
WELL DW-66-28-504		Apr. 20, 1967	114.2	Mar. 19, 1957	82.4
Owner: R. L. Cook		June 22, 1967	128.4	Apr. 2, 1958	78.2
Aquifer: --		Aug. 24, 1967	124.4	Mar. 10, 1960	75.5
Mar. 14, 1960	88.1	Oct. 26, 1967	115.8	Mar. 12, 1961	76.4
Mar. 12, 1961	90.0	Dec. 11, 1967	117.6	Feb. 25, 1963	80.7
Mar. 11, 1962	102.1	Feb. 9, 1968	115.7	Feb. 19, 1964	90.2
Feb. 25, 1963	96.2	Mar. 19, 1968	96.5	Mar. 5, 1965	88.6
Feb. 19, 1964	109.5	June 21, 1968	124.4	Feb. 10, 1966	97.3
		Aug. 23, 1968	127.6	Feb. 14, 1967	99.8
				Feb. 9, 1968	101.2



Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL DW-66-30-104--Continued		WELL DW-66-35-303		WELL DW-66-37-203--Continued	
Feb. 16, 1967	36.9	Owner: John J. Williams		Nov. 29, 1973	42.5
Feb. 7, 1968	37.2	Aquifer: Chicot-Evangeline		Mar. 5, 1974	42.1
Mar. 24, 1969	35.1	May 9, 1960	90.9	Mar. 6, 1975	42.2
Mar. 25, 1970	35.1	Mar. 11, 1962	91.5		
Apr. 13, 1971	35.1	Feb. 25, 1963	95.9	WELL DW-66-37-302	
Mar. 16, 1972	33.6	Feb. 19, 1964	117.3	Owner: W. N. Lehrer	
Mar. 12, 1973	34.4	Mar. 9, 1965	113.1	Aquifer: Chicot	
Mar. 4, 1974	31.9	Feb. 10, 1966	121.4	Mar. 10, 1965	24.2
Mar. 6, 1975	32.1	Feb. 14, 1967	122.5	Feb. 10, 1966	24.8
		Feb. 21, 1968	125.4	Feb. 16, 1967	26.3
		Mar. 15, 1972	123.4	Feb. 8, 1968	20.0
WELL DW-66-30-201		Mar. 9, 1973	128.1	Mar. 25, 1969	22.7
Owner: Payne Brothers		Mar. 4, 1974	127.5	Mar. 26, 1970	21.1
Aquifer: Chicot		Mar. 7, 1975	124.6	Apr. 14, 1971	28.1
July 1957	43.0			Mar. 15, 1972	27.4
Mar. 4, 1965	37.6	WELL DW-66-36-902		Mar. 12, 1973	29.0
Feb. 9, 1966	37.4	Owner: Engstrom Brothers		Mar. 5, 1974	25.5
Feb. 17, 1967	37.5	Aquifer: Chicot		Mar. 6, 1975	22.0
Feb. 7, 1968	37.8	Dec. 2, 1959	45.1		
Mar. 24, 1969	37.5	Mar. 12, 1961	43.3	WELL DW-66-37-601	
Mar. 25, 1970	38.8	Feb. 25, 1963	43.6	Owner: R. A. Shoop	
Aug. 30, 1974	35.2	Feb. 20, 1964	42.8	Aquifer: Chicot	
Mar. 3, 1975	35.4	Mar. 11, 1965	43.9	Dec. 10, 1959	37.0
WELL DW-66-30-401		Feb. 10, 1966	44.7	Mar. 12, 1961	35.5
Owner: Wharton Turf Grass		Feb. 14, 1967	45.6	Feb. 25, 1963	37.0
Aquifer: Chicot		Feb. 8, 1968	46.2	Feb. 20, 1964	38.1
Mar. 1959	23.5	Mar. 25, 1969	44.7	Mar. 10, 1965	38.0
Mar. 10, 1965	23.7	Mar. 26, 1970	44.7	Feb. 10, 1966	37.2
Feb. 9, 1966	23.9	Apr. 14, 1971	46.1	Feb. 13, 1967	42.3
Feb. 16, 1967	24.8	Mar. 15, 1972	45.0	Feb. 8, 1968	38.4
Feb. 7, 1968	24.9	Mar. 12, 1973	45.0	Mar. 26, 1970	37.6
Mar. 24, 1969	23.8	Nov. 29, 1973	44.9	Apr. 14, 1971	38.0
Mar. 25, 1970	24.0	Mar. 4, 1974	44.5	Mar. 15, 1972	37.6
Apr. 13, 1971	27.0	Mar. 7, 1975	41.3	Mar. 12, 1973	38.1
Mar. 16, 1972	24.3			Jan. 4, 1974	38.7
Mar. 12, 1973	24.4	WELL DW-66-37-203		Mar. 5, 1974	36.5
Mar. 5, 1974	22.8	Owner: Lester Bunge		Mar. 6, 1975	36.1
		Aquifer: Chicot			
		Mar. 10, 1965	44.6	WELL DW-66-37-607	
WELL DW-66-35-301		Feb. 13, 1967	45.1	Owner: Charles Kallina	
Owner: Shell Oil Co.		Mar. 25, 1969	47.4	Aquifer: Chicot	
Aquifer: Evangeline		Apr. 14, 1971	44.1	Feb. 10, 1959	37.1
1944	85	Mar. 15, 1972	43.8	Mar. 12, 1961	36.2
Nov. 3, 1959	144	Mar. 12, 1973	44.4	Feb. 25, 1963	38.3
Nov. 8, 1973	212.7				
Mar. 4, 1975	175.2				

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL DW-66-37-607--Continued		WELL DW-66-38-102		WELL DW-66-44-601	
Feb. 20, 1964	39.6	Owner: George Cason Aquifer: Chicot		Owner: W. R. Frnka Aquifer: Chicot	
Mar. 10, 1965	39.1	Mar. 22, 1960	16.9	Mar. 11, 1965	46.6
Feb. 10, 1966	38.3	Mar. 16, 1961	15.0	Feb. 14, 1967	48.1
Feb. 13, 1967	41.6	Feb. 25, 1963	18.9	Feb. 21, 1968	47.9
Feb. 8, 1968	38.5	Mar. 3, 1975	15.7	Apr. 15, 1971	48.7
Mar. 25, 1969	40.1	WELL DW-66-43-907		Mar. 15, 1972	49.1
Mar. 26, 1970	39.7	Owner: Texas West Indies Aquifer: Chicot-Evangeline		Mar. 12, 1973	49.6
Apr. 14, 1971	39.9	Feb. 21, 1968	99.0	Mar. 4, 1974	48.7
Mar. 15, 1972	39.4	Mar. 26, 1970	99.8	WELL DW-66-44-702	
Mar. 12, 1973	39.5	Mar. 14, 1972	109.8	Owner: Texas West Indies Aquifer: Chicot	
Nov. 29, 1973	38.1	Apr. 2, 1973	107.6	Oct. 26, 1959	88.3
Mar. 5, 1974	38.1	Jan. 18, 1974	123.6	Mar. 24, 1965	87.0
Mar. 6, 1975	37.7	Mar. 7, 1974	109.4	Feb. 10, 1966	91.4
WELL DW-66-37-703		Mar. 6, 1975	104.4	Feb. 14, 1967	93.3
Owner: Engstrom Brothers Aquifer: Chicot		WELL DW-66-44-302		Feb. 21, 1968	93.2
Mar. 11, 1965	46.6	Owner: Charles Kallina Aquifer: Chicot		Mar. 26, 1969	89.1
Feb. 10, 1966	41.6	Oct. 6, 1959	55.5	Mar. 26, 1970	102.0
Feb. 8, 1968	42.0	Mar. 12, 1961	46.3	Apr. 15, 1971	142.8
Mar. 26, 1970	43.2	Feb. 25, 1963	46.5	Mar. 14, 1972	112.0
Mar. 15, 1972	41.2	Feb. 20, 1964	47.4	Apr. 2, 1973	106.0
Mar. 12, 1973	41.4	Mar. 11, 1965	47.6	Jan. 18, 1974	111.4
Nov. 29, 1973	42.1	Feb. 10, 1966	47.9	Mar. 7, 1974	98.9
Mar. 4, 1974	41.1	Feb. 14, 1967	49.3	Mar. 6, 1975	107.4
Mar. 7, 1975	42.0	Feb. 21, 1968	48.1	WELL DW-66-45-101	
WELL DW-66-37-905		Feb. 25, 1969	48.8	Owner: Curtis Fling Aquifer: Chicot	
Owner: R. C. Leopold Aquifer: Chicot		Feb. 26, 1970	48.7	Mar. 11, 1965	48.9
Dec. 10, 1959	39.1	Apr. 14, 1971	49.5	Feb. 10, 1966	44.6
Mar. 11, 1965	42.3	Mar. 15, 1972	48.8	Feb. 14, 1967	52.5
Feb. 9, 1966	40.1	Mar. 12, 1973	51.6	Feb. 8, 1968	48.8
Feb. 13, 1967	41.7	WELL DW-66-44-501		Mar. 25, 1969	45.0
Feb. 8, 1968	41.4	Owner: Texas West Indies Aquifer: Chicot			
Mar. 25, 1969	40.2	Oct. 26, 1959	77.2		
Mar. 26, 1970	40.4	Mar. 24, 1965	74.6		
Mar. 15, 1972	42.4	Feb. 14, 1967	76.3		
Mar. 12, 1973	41.5	Mar. 26, 1969	65.7		
Mar. 4, 1974	39.9	Apr. 15, 1971	66.2		
Mar. 6, 1975	37.1	Mar. 14, 1972	67.1		
		Jan. 18, 1974	64.5		

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

LAVACA COUNTY

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL RY-66-33-503		WELL RY-66-34-202--Continued		WELL RY-66-34-901--Continued	
Owner: City of Hallettsville Aquifer: Jasper		Apr. 28, 1971	34.0	Jan. 24, 1972	13.8
Jan. 30, 1954	$\frac{1}{140}$	June 2, 1971	34.6	Feb. 28, 1972	13.1
Apr. 17, 1968	$\frac{1}{110}$	July 13, 1971	34.9	Mar. 31, 1972	12.8
July 9, 1971	$\frac{1}{135}$	Aug. 11, 1971	33.7	May 26, 1972	10.2
Mar. 8, 1974	$\frac{1}{165}$	Sept. 15, 1971	33.0	June 26, 1972	12.5
$\frac{1}{}$ Airline measurement.		Oct. 12, 1971	33.1	July 31, 1972	13.9
		Nov. 19, 1971	33.6	Sept. 25, 1972	14.6
		Dec. 22, 1971	33.0	Mar. 8, 1973	13.9
		Jan. 24, 1972	33.0	Mar. 8, 1974	12.2
WELL RY-66-34-201		Feb. 28, 1972	32.6	Mar. 5, 1975	12.5
Owner: Texas Water Development Board Aquifer: Chicot		Mar. 31, 1972	32.4		
Dec. 9, 1970	19.9	May 26, 1972	31.4	WELL RY-66-34-902	
Jan. 11, 1971	20.2	June 26, 1972	32.0	Owner: Texas Water Development Board Aquifer: Chicot	
Feb. 15, 1971	20.6	July 31, 1972	32.9	Dec. 9, 1970	12.3
Mar. 23, 1971	20.9	Sept. 25, 1972	33.1	Jan. 11, 1971	12.6
Apr. 28, 1971	21.2	Mar. 8, 1973	31.7	Feb. 15, 1971	12.8
June 2, 1971	21.8	Mar. 8, 1974	30.6	Mar. 23, 1971	13.0
July 13, 1971	22.4	Mar. 4, 1975	30.1	Apr. 29, 1971	13.0
Aug. 11, 1971	22.2			June 2, 1971	13.4
Sept. 15, 1971	21.5	WELL RY-66-34-702		July 13, 1971	13.9
Oct. 12, 1971	20.4	Owner: B. Pustejovski Aquifer: Evangeline		Aug. 11, 1971	13.1
Nov. 19, 1971	19.4	Dec. 3, 1973	94.6	Sept. 15, 1971	12.4
Dec. 22, 1971	20.0	Feb. 12, 1974	94.2	Oct. 12, 1971	11.8
Jan. 24, 1972	19.9	Feb. 25, 1975	94.1	Nov. 19, 1971	12.1
Feb. 28, 1972	19.6	Mar. 5, 1975	94.0	Dec. 22, 1971	11.2
Mar. 31, 1972	19.2			Jan. 24, 1972	11.1
May 26, 1972	17.7	WELL RY-66-34-901		Feb. 28, 1972	10.5
June 26, 1972	18.6	Owner: Texas Water Development Board Aquifer: Chicot		Mar. 31, 1972	10.4
July 31, 1972	19.6	Dec. 9, 1970	15.0	May 26, 1972	7.3
Sept. 25, 1972	20.5	Jan. 11, 1971	15.2	June 26, 1972	9.5
Mar. 8, 1973	20.7	Feb. 15, 1971	15.4	July 31, 1972	10.7
Mar. 8, 1974	18.0	Mar. 23, 1971	15.5	Sept. 25, 1972	11.6
Mar. 4, 1975	18.1	Apr. 29, 1971	15.7	Mar. 8, 1973	11.3
		June 2, 1971	16.1	Mar. 8, 1974	8.3
WELL RY-66-34-202		July 13, 1971	16.6	Mar. 5, 1975	8.6
Owner: Texas Water Development Board Aquifer: Evangeline		Aug. 11, 1971	14.0		
Dec. 9, 1970	33.6	Sept. 15, 1971	12.5		
Jan. 11, 1971	33.8	Oct. 12, 1971	14.2		
Feb. 15, 1971	34.0	Nov. 19, 1971	14.5		
Mar. 23, 1971	34.1	Dec. 22, 1971	13.5		

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL RY-66-34-903		WELL RY-66-35-901		WELL RY-66-35-901--Continued	
Owner: Texas Water Development Board Aquifer: Chicot		Owner: Mrs. Vivian Cloninger Aquifer: Evangeline-Chicot			
Dec. 19, 1970	28.4	Mar. 20, 1956	69.2	Apr. 6, 1971	92.0
Jan. 11, 1971	28.5	Mar. 19, 1957	72.4	Mar. 16, 1972	86.0
Feb. 15, 1971	28.6	Apr. 3, 1958	72.6	Mar. 9, 1973	90.2
Mar. 23, 1971	28.7	Mar. 9, 1960	73.1	Mar. 8, 1974	89.2
Apr. 29, 1971	28.8	Mar. 13, 1961	71.9	Mar. 5, 1975	90.3
June 2, 1971	29.0	Mar. 27, 1962	71.7	WELL RY-66-35-902	
July 13, 1971	29.4	Feb. 28, 1963	76.4	Owner: Miller Brothers Aquifer: Chicot-Evangeline	
Aug. 11, 1971	29.4	Feb. 20, 1964	81.3	Mar. 20, 1956	68.8
Sept. 15, 1971	29.4	Feb. 15, 1965	77.0	Apr. 3, 1958	73.0
Oct. 12, 1971	29.2	July 19, 1965	94.0	Mar. 13, 1961	72.4
Nov. 19, 1971	29.0	Nov. 16, 1965	85.3	Mar. 27, 1962	74.3
Dec. 22, 1971	28.8	Jan. 25, 1966	80.8	Feb. 28, 1963	79.2
Jan. 24, 1972	28.5	Feb. 10, 1966	80.8	Feb. 20, 1964	85.5
Feb. 28, 1972	29.2	Mar. 25, 1966	79.9	Feb. 15, 1965	86.1
Mar. 31, 1972	28.0	Apr. 20, 1966	80.0	Feb. 10, 1966	89.6
May 26, 1972	27.6	May 19, 1966	80.2	Feb. 7, 1967	88.3
June 26, 1972	27.4	June 17, 1966	80.7	Feb. 21, 1968	91.2
July 31, 1972	27.5	July 29, 1966	85.7	Mar. 15, 1972	90.9
Sept. 25, 1972	27.7	Aug. 26, 1966	86.5	Mar. 9, 1973	92.4
Mar. 8, 1973	28.0	Sept. 23, 1966	87.4	Mar. 8, 1974	91.2
Mar. 8, 1974	24.9	Oct. 20, 1966	92.2	Mar. 5, 1975	89.3
Mar. 5, 1975	24.5	Dec. 22, 1966	89.6	WELL RY-66-41-202	
WELL RY-66-35-801		Feb. 7, 1967	88.5	Owner: G. H. Gerdes Aquifer: Evangeline	
Owner: Mrs. Vivian Cloninger Aquifer: Evangeline-Chicot		Apr. 20, 1967	93.8	Jan. 17, 1974	37.3
Apr. 3, 1958	74.8	Aug. 22, 1967	92.2	Feb. 11, 1974	37.0
Apr. 9, 1960	75.9	Oct. 26, 1967	91.5	Feb. 24, 1975	36.8
Mar. 13, 1961	78.9	Dec. 14, 1967	91.2	Mar. 6, 1975	36.9
Mar. 27, 1962	77.6	Feb. 21, 1968	84.5	WELL RY-66-42-802	
Feb. 28, 1963	85.6	Apr. 19, 1968	84.0	Owner: Andrew Glaze Aquifer: Chicot	
Feb. 20, 1964	83.6	June 21, 1968	83.2	Oct. 22, 1959	107.3
Feb. 15, 1965	84.0	Aug. 23, 1968	85.7	Feb. 27, 1963	96.8
Feb. 10, 1966	85.9	Oct. 18, 1968	97.0	Feb. 20, 1964	108.2
Feb. 7, 1967	84.7	Dec. 19, 1968	93.7	Feb. 15, 1965	107.3
Feb. 21, 1968	87.7	June 18, 1969	97.6	Feb. 10, 1966	108.5
Apr. 6, 1971	100.3	Aug. 21, 1969	98.5	Feb. 7, 1967	107.9
Mar. 16, 1972	90.1	Oct. 18, 1969	97.6	Feb. 21, 1968	111.9
Mar. 9, 1973	90.8	Dec. 13, 1969	97.3	Mar. 26, 1969	108.3
Mar. 8, 1974	89.5	Feb. 12, 1970	88.8	Mar. 10, 1970	114.5
Mar. 5, 1975	90.8	Apr. 17, 1970	86.2		
		Aug. 7, 1970	98.3		
		Oct. 21, 1970	95.1		
		Dec. 15, 1970	89.1		

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL RY-66-42-802--Continued		WELL RY-66-43-301		WELL RY-66-43-705--Continued	
Apr. 6, 1971	114.2	Owner: Miller Brothers		May 26, 1972	14.8
Mar. 15, 1972	113.9	Aquifer: Evangeline-Chicot		June 26, 1972	17.4
Mar. 8, 1973	117.6	Mar. 20, 1956	67.5	July 31, 1972	19.2
Mar. 7, 1974	114.4	Mar. 19, 1957	71.9	Sept. 25, 1972	20.6
Mar. 5, 1975	115.9	Apr. 3, 1958	71.1	Mar. 8, 1973	22.2
WELL RY-66-42-902		Mar. 9, 1960	72.2	Mar. 7, 1974	18.0
Owner: Cook, Cook, & New		Mar. 13, 1961	73.7	Mar. 5, 1975	18.7
Aquifer: Evangeline		Mar. 27, 1962	75.2	WELL RY-66-43-704	
Feb. 15, 1965	91.2	Mar. 28, 1963	85.9	Owner: Texas Water	
Feb. 10, 1966	101.1	Feb. 20, 1964	86.2	Development Board	
Feb. 7, 1967	97.9	Feb. 15, 1965	85.7	Aquifer: Chicot	
Feb. 21, 1968	103.9	Feb. 10, 1966	88.9	Dec. 9, 1970	25.3
Mar. 26, 1969	111.5	Feb. 7, 1967	86.8	Jan. 11, 1971	25.4
Mar. 10, 1970	106.4	Feb. 21, 1968	92.6	Feb. 15, 1971	25.6
Apr. 6, 1971	119.7	Mar. 26, 1969	91.7	Mar. 23, 1971	25.8
Mar. 15, 1972	106.6	Mar. 10, 1970	95.9	Apr. 29, 1971	25.9
Mar. 8, 1973	106.8	Mar. 16, 1972	92.8	June 2, 1971	26.2
Mar. 7, 1974	103.4	Mar. 9, 1973	98.5	July 12, 1971	26.6
Mar. 5, 1975	111.3	Mar. 8, 1974	95.2	Aug. 11, 1971	26.8
WELL RY-66-43-201		Mar. 5, 1975	98.1	Sept. 14, 1971	27.1
Owner: Lester Bunge		WELL RY-66-43-703		Oct. 12, 1971	26.9
Aquifer: Evangeline-Chicot		Owner: Texas Water		Nov. 19, 1971	26.8
Oct. 19, 1959	97.2	Development Board		Dec. 22, 1971	26.7
Mar. 9, 1960	71.2	Aquifer: Chicot		Jan. 24, 1972	26.4
Mar. 13, 1961	71.1	Dec. 9, 1970	22.0	Feb. 28, 1972	27.2
Mar. 27, 1962	74.8	Jan. 11, 1971	22.4	Mar. 31, 1972	25.8
Feb. 28, 1963	81.7	Feb. 15, 1971	22.7	May 26, 1972	24.8
Feb. 20, 1964	94.6	Mar. 23, 1971	22.9	June 26, 1972	23.3
Feb. 15, 1965	91.3	Apr. 29, 1971	23.1	July 31, 1972	23.2
Feb. 10, 1966	97.8	June 2, 1971	23.4	Sept. 25, 1972	23.8
Feb. 7, 1967	95.2	July 12, 1971	23.9	Mar. 8, 1973	25.4
Feb. 21, 1968	100.1	Aug. 11, 1971	23.5	Mar. 7, 1974	19.7
Mar. 26, 1969	104.8	Sept. 14, 1971	23.2	Mar. 5, 1975	20.7
Mar. 10, 1970	104.4	Oct. 12, 1971	23.1	WELL RY-66-43-801	
Mar. 16, 1972	98.1	Nov. 19, 1971	23.2	Owner: Morton Brothers	
Mar. 9, 1973	103.3	Dec. 22, 1971	22.7	Aquifer: Evangeline-Chicot	
Mar. 8, 1974	100.0	Jan. 24, 1972	22.7	Mar. 10, 1960	76.0
Mar. 5, 1975	111.4	Feb. 28, 1972	22.0	Feb. 27, 1963	84.7
		Mar. 31, 1972	21.8	Feb. 20, 1964	99.3
				Feb. 24, 1965	92.0
				Feb. 10, 1966	100.3
				Feb. 7, 1967	101.4



Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL RY-66-43-801--Continued		WELL RY-66-44-402		WELL RY-66-49-901--Continued	
Mar. 13, 1974	97.7	Owner: William Zboril		Dec. 14, 1967	76.1
Mar. 5, 1975	116.8	Aquifer: Evangeline-Chicot		Feb. 21, 1968	77.3
WELL RY-66-43-802		Dec. 1957	110	Apr. 19, 1968	77.1
Owner: Texas Water Development Board		Feb. 24, 1965	94.8	June 21, 1968	74.5
Aquifer: Chicot		Feb. 10, 1966	101.8	Aug. 23, 1968	77.0
Dec. 9, 1970	50.3	Feb. 7, 1967	97.5	Oct. 18, 1968	77.0
Jan. 11, 1971	49.5	Feb. 21, 1968	99.7	Dec. 20, 1968	79.2
Feb. 15, 1971	48.6	Mar. 26, 1969	100.2	Apr. 18, 1969	77.2
Mar. 23, 1971	47.9	Mar. 10, 1970	109.9	June 20, 1969	77.4
Apr. 29, 1971	48.4	Mar. 15, 1972	107.8	Aug. 21, 1969	78.2
June 2, 1971	50.3	Mar. 9, 1973	112.8	Oct. 18, 1969	77.5
July 12, 1971	52.4	Mar. 8, 1974	106.6	Dec. 13, 1969	78.3
Aug. 11, 1971	53.6	Mar. 5, 1975	108.3	Feb. 12, 1970	77.8
Sept. 14, 1971	54.4	WELL RY-66-49-701		Apr. 17, 1970	75.9
Oct. 12, 1971	55.7	Owner: B. D. McKimney		Aug. 7, 1970	82.3
Nov. 19, 1971	54.5	Aquifer: Evangeline		Oct. 21, 1970	81.0
Dec. 22, 1971	53.8	Oct. 26, 1973	57.1	Dec. 15, 1970	78.6
Jan. 24, 1972	52.3	Feb. 7, 1974	52.9	Apr. 7, 1971	76.6
Feb. 28, 1972	50.6	Feb. 24, 1975	54.9	Mar. 15, 1972	76.4
Mar. 31, 1972	50.1	Mar. 5, 1975	53.4	Mar. 7, 1973	76.0
May 26, 1972	51.0	WELL RY-66-49-901		Mar. 6, 1974	73.6
June 26, 1972	51.5	Owner: Eagle Banner Ranches		Mar. 11, 1974	73.3
July 31, 1972	52.3	Aquifer: Evangeline		WELL RY-66-50-202	
Sept. 25, 1972	53.2	Feb. 15, 1965	71.1	Owner: Henderson Farms	
Mar. 8, 1973	51.2	July 19, 1965	72.9	Aquifer: Evangeline-Chicot	
Mar. 7, 1974	41.7	Sept. 28, 1965	74.9	Oct. 10, 1959	93.2
Mar. 5, 1975	40.6	Nov. 16, 1965	74.8	Mar. 13, 1960	75.1
WELL RY-66-43-803		Jan. 25, 1966	72.4	Feb. 27, 1963	88.3
Owner: Morton Brothers		Feb. 11, 1966	71.8	Feb. 15, 1965	88.9
Aquifer: Evangeline-Chicot		Mar. 25, 1966	71.0	Feb. 10, 1966	98.0
Feb. 21, 1968	107.2	Apr. 20, 1966	70.8	Feb. 7, 1967	94.6
Mar. 10, 1969	110.3	May 19, 1966	71.2	WELL RY-66-50-401	
Mar. 26, 1970	110.3	June 17, 1966	71.7	Owner: Henderson Farms	
Apr. 6, 1971	136.9	July 29, 1966	73.2	Aquifer: Evangeline-Chicot	
Mar. 15, 1972	110.8	Aug. 26, 1966	73.4	Jan. 5, 1951	34
Mar. 8, 1973	113.1	Sept. 22, 1966	73.0	Feb. 15, 1965	88.8
Mar. 7, 1974	107.3	Oct. 19, 1966	75.3	Feb. 11, 1966	106.7
		Dec. 22, 1966	73.6	Mar. 10, 1970	96.8
		Feb. 7, 1967	73.1	Mar. 15, 1972	95.6
		Apr. 20, 1967	75.8	Mar. 11, 1974	84.6
		Aug. 24, 1967	76.7	Mar. 5, 1975	103.8
		Oct. 26, 1967	76.4		

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL RY-66-57-202		WELL RY-67-39-507--Continued		WELL RY-67-40-501	
Owner: Henderson Farms		Mar. 3, 1964	68.3	Owner: Leonard Mlodenke	
Aquifer: Evangeline-Chicot		Feb. 15, 1965	68.6	Aquifer: Burkeville	
Mar. 24, 1964	79.0	Feb. 12, 1966	66.8	Sept. 2, 1959	40.7
Feb. 24, 1965	77.5	Feb. 7, 1967	67.2	Feb. 28, 1963	36.5
Feb. 11, 1966	78.5	Feb. 20, 1968	68.2	Feb. 23, 1965	37.4
Feb. 7, 1967	77.8	Mar. 27, 1969	65.1	Feb. 12, 1966	36.9
Mar. 15, 1972	81.5	Mar. 9, 1970	64.2	Feb. 7, 1967	36.6
Mar. 14, 1974	73.4	Mar. 16, 1972	65.9	Mar. 27, 1969	56.3
WELL RY-67-31-604		Mar. 8, 1973	62.9	Mar. 9, 1970	58.3
Owner: Eugene Kreji		Mar. 11, 1974	61.0	Apr. 5, 1971	61.4
Aquifer: Jasper		Mar. 4, 1975	63.9	Mar. 16, 1972	62.6
Aug. 27, 1959	67.0	WELL RY-67-39-601		Mar. 11, 1974	61.7
Feb. 23, 1965	57.6	Owner: Adolph Simper		Mar. 4, 1975	58.8
Feb. 7, 1967	58.8	Aquifer: Jasper		WELL RY-67-47-603	
Feb. 20, 1968	58.7	Sept. 2, 1959	5.7	Owner: Restland Mem. Park	
Mar. 9, 1970	60.6	Mar. 3, 1964	8.3	Aquifer: Burkeville	
Apr. 5, 1971	43.5	Feb. 15, 1965	5.0	Apr. 23, 1959	64.6
Mar. 16, 1972	66.6	Feb. 12, 1966	3.0	Feb. 23, 1965	60.7
Mar. 8, 1973	65.6	Feb. 7, 1967	4.2	Feb. 11, 1966	59.7
Mar. 11, 1974	31.7	Feb. 20, 1968	3.1	Feb. 7, 1967	60.2
Mar. 4, 1975	43.2	Mar. 27, 1969	1.2	Feb. 20, 1968	62.2
WELL RY-67-39-302		Mar. 9, 1970	1.9	Mar. 27, 1969	59.1
Owner: G. D. Nollkamper		Apr. 5, 1971	6.1	Mar. 9, 1970	61.1
Aquifer: Jasper		Mar. 16, 1972	2.7	Apr. 7, 1971	68.1
Sept. 1, 1959	29.4	Mar. 8, 1973	2.6	Mar. 16, 1972	65.4
Feb. 15, 1965	25.6	Mar. 11, 1974	.8	Mar. 8, 1973	63.8
Feb. 12, 1966	25.5	Mar. 4, 1975	.9	Mar. 11, 1974	60.2
Feb. 7, 1967	25.8	WELL RY-67-39-603		Mar. 6, 1975	62.1
Feb. 20, 1968	25.6	Owner: Bennie Hybner		WELL RY-67-47-604	
Mar. 27, 1969	28.9	Aquifer: Jasper		Owner: City of Yoakum	
Mar. 9, 1970	28.9	Aug. 28, 1959	23.0	Aquifer: Jasper	
Apr. 5, 1971	54.0	Feb. 28, 1963	21.5	Feb. 7, 1952	55
Mar. 16, 1972	35.8	Mar. 3, 1964	23.1	May 20, 1963	74
Mar. 8, 1973	35.4	Feb. 15, 1965	24.2	Feb. 24, 1965	80.7
Mar. 11, 1974	33.7	Feb. 12, 1966	19.2	Feb. 20, 1968	78.4
Mar. 4, 1975	35.6	Feb. 7, 1967	20.4	Mar. 9, 1970	74.9
WELL RY-67-39-507		Feb. 20, 1968	21.1	Apr. 7, 1971	84.0
Owner: Joe Huebner		Mar. 9, 1970	20.6	Mar. 16, 1972	78.7
Aquifer: Jasper		Apr. 5, 1971	22.8	Mar. 7, 1973	77.8
Aug. 31, 1959	70.0	Mar. 16, 1972	20.0	Feb. 11, 1974	73.6
Feb. 12, 1960	64.0	Mar. 8, 1973	19.8		
Feb. 28, 1963	69.1	Mar. 11, 1974	17.9		
		Mar. 4, 1975	18.2		

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

<u>WHARTON COUNTY</u>					
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-65-41-401		WELL ZA-65-41-909--Continued		WELL ZA-65-49-201--Continued	
Owner: L. C. Berger		Dec. 20, 1941	27.4	Dec. 15, 1938	21.6
Aquifer: Chicot		Mar. 4, 1942	27.8	Mar. 21, 1939	20.3
Mar. 22, 1965	30.4	Dec. 17, 1942	28.7	June 22, 1939	21.5
Mar. 23, 1966	30.2	Apr. 10, 1943	28.0	Sept. 26, 1939	22.2
Feb. 8, 1967	30.0	Mar. 27, 1944	27.5	Dec. 18, 1939	24.2
Mar. 20, 1970	30.7	Apr. 7, 1945	29.2	Mar. 11, 1940	23.9
Apr. 9, 1971	29.5	Apr. 18, 1946	26.8	Dec. 11, 1940	21.8
Mar. 7, 1972	27.2	Mar. 27, 1947	23.0	Apr. 8, 1941	19.5
Apr. 4, 1973	24.8	Mar. 9, 1948	25.7	Dec. 20, 1941	16.9
Mar. 5, 1974	22.7	Mar. 21, 1949	32.2	Apr. 4, 1942	17.5
Mar. 3, 1975	25.0	Mar. 22, 1950	29.9	Dec. 17, 1942	19.1
WELL ZA-65-41-902		Mar. 27, 1951	30.1	Apr. 10, 1943	18.1
Owner: Texas Gulf Sulfur		Mar. 26, 1952	30.1	Mar. 28, 1944	16.6
Aquifer: Chicot		Mar. 16, 1953	30.7	Mar. 27, 1945	19.3
Feb. 15, 1934	23.9	Mar. 26, 1954	36.9	Apr. 18, 1946	18.3
Apr. 8, 1941	24.4	Mar. 24, 1955	41.5	Mar. 27, 1947	17.3
Dec. 20, 1941	22.3	Mar. 23, 1956	60.9	Mar. 21, 1949	23.6
Mar. 21, 1942	22.5	Mar. 25, 1957	43.7	Mar. 20, 1953	27.4
Dec. 17, 1942	24.4	Apr. 2, 1958	56.0	Apr. 3, 1959	37.0
Mar. 1, 1944	28.0	Apr. 4, 1959	52.5	Mar. 14, 1960	34.8
WELL ZA-65-41-909		Mar. 15, 1960	42.8	June 25, 1974	50.1
Owner: Texas Gulf Sulfur		Mar. 22, 1965	43.2	Mar. 6, 1975	39.5
Aquifer: Chicot		Mar. 24, 1966	43.9	WELL ZA-65-49-401	
Feb. 15, 1934	17.3	Feb. 8, 1967	44.0	Owner: George Willrich	
Aug. 30, 1935	19.5	Feb. 11, 1968	45.4	Aquifer: Chicot	
Dec. 8, 1937	32.0	Mar. 11, 1969	46.3	Mar. 23, 1965	15.0
Jan. 13, 1938	29.8	Mar. 20, 1970	46.9	Mar. 24, 1966	15.6
Feb. 10, 1938	30.1	Apr. 9, 1971	47.5	Feb. 8, 1967	14.8
Mar. 5, 1938	30.3	Mar. 7, 1972	47.9	Mar. 19, 1970	16.3
Apr. 18, 1938	30.8	Apr. 4, 1973	48.3	Apr. 8, 1971	18.1
May 2, 1938	28.6	Mar. 5, 1974	45.6	WELL ZA-66-31-201	
May 7, 1938	29.1	June 26, 1974	48.4	Owner: Roy Kaechlele	
Sept. 14, 1938	27.1	Mar. 3, 1975	48.8	Aquifer: Chicot-Evange-inc	
Dec. 16, 1938	26.6	WELL ZA-65-49-201		Feb. 24, 1966	32.2
Mar. 21, 1939	30.8	Owner: G.C.&S.F. Railroad		Mar. 7, 1966	82
June 22, 1939	31.3	Aquifer: Chicot		June 21, 1974	56.0
Sept. 26, 1939	30.8	Feb. 15, 1934	19.7	Mar. 3, 1975	35.2
Dec. 18, 1939	40.7	Aug. 30, 1935	19.1		
Mar. 11, 1940	35.1	Feb. 4, 1938	20.3		
Dec. 11, 1940	25.9	May 8, 1938	20.6		
Apr. 8, 1941	24.1	Sept. 14, 1938	20.6		



Table 7.--Water Levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-32-402--Continued		WELL ZA-66-32-706--Continued		WELL ZA-66-38-201--Continued	
Apr. 4, 1973	36.6	Sept. 26, 1939	16.0	Mar. 26, 1954	39.0
Mar. 5, 1974	35.4	Dec. 18, 1939	16.3	Mar. 24, 1955	40.7
Mar. 3, 1975	33.6	Mar. 11, 1940	13.7	Mar. 23, 1956	39.5
WELL ZA-66-32-705		Dec. 11, 1940	10.3	Mar. 29, 1957	39.9
Owner: Joe E. Vacek		Apr. 7, 1941	12.3	Apr. 4, 1958	36.0
Aquifer: Chicot		Dec. 20, 1941	11.7	Apr. 3, 1959	37.4
Aug. 30, 1935	13.7	Apr. 4, 1942	10.0	Mar. 22, 1960	34.7
Feb. 5, 1938	13.7	Dec. 18, 1942	12.2	Mar. 14, 1961	33.0
May 7, 1938	11.4	Apr. 9, 1943	11.2	Mar. 30, 1962	32.6
Sept. 14, 1938	14.4	Mar. 27, 1944	9.0	Feb. 25, 1963	35.3
Dec. 15, 1938	14.0	Apr. 28, 1945	7.8	Mar. 22, 1966	36.1
Mar. 21, 1939	14.8	Apr. 7, 1946	5.8	Feb. 9, 1967	34.9
June 22, 1939	14.1	Mar. 27, 1947	4.2	Feb. 10, 1968	35.1
Sept. 26, 1939	14.6	June 24, 1974	7.7	Mar. 12, 1969	35.5
Dec. 18, 1939	14.9	WELL ZA-66-32-804		Mar. 20, 1970	37.8
Mar. 11, 1940	14.1	Owner: Dr. J. Dan Schuhmann		Apr. 12, 1971	27.9
Dec. 11, 1940	8.4	Aquifer: Chicot		Mar. 8, 1972	38.7
Apr. 7, 1941	10.0	Mar. 22, 1965	37.8	Apr. 5, 1973	39.7
Dec. 20, 1941	10.7	Mar. 24, 1966	38.4	Mar. 5, 1974	38.1
Apr. 24, 1942	8.5	Feb. 9, 1967	39.7	Mar. 4, 1975	34.2
Dec. 18, 1942	11.4	Feb. 12, 1968	40.5	WELL ZA-66-38-202	
Apr. 9, 1943	10.2	Mar. 11, 1969	40.9	Owner: J. J. Pendergrass	
Mar. 27, 1944	7.7	Mar. 24, 1970	40.0	Aquifer: Chicot	
Apr. 28, 1945	7.4	Apr. 9, 1971	42.0	Apr. 20, 1940	27.4
Apr. 17, 1946	8.7	Mar. 7, 1972	41.0	Apr. 7, 1941	22.2
Mar. 27, 1947	7.3	Apr. 4, 1973	40.7	Dec. 20, 1941	20.2
Mar. 8, 1948	9.7	Mar. 5, 1974	39.7	Apr. 4, 1942	20.7
Mar. 21, 1949	9.6	WELL ZA-66-37-901		Dec. 18, 1942	21.7
Mar. 24, 1950	9.2	Owner: Lester Krenek		Apr. 9, 1943	21.9
Mar. 27, 1951	6.0	Aquifer: Chicot		Mar. 27, 1944	22.3
Mar. 24, 1952	11.7	Mar. 22, 1965	44.4	Apr. 28, 1945	22.1
Mar. 20, 1953	12.8	Feb. 9, 1967	45.0	Apr. 17, 1946	22.5
June 24, 1974	11.0	Feb. 10, 1968	45.3	Mar. 27, 1947	21.3
WELL ZA-66-32-706		Apr. 5, 1971	45.2	Mar. 9, 1948	22.7
Owner: Joe E. Vacek		WELL ZA-66-38-201		Mar. 21, 1949	23.2
Aquifer: Chicot		Owner: J. J. Pendergrass		Mar. 24, 1950	26.9
Aug. 30, 1935	15.3	Aquifer: Chicot		Mar. 5, 1951	28.9
Feb. 5, 1938	16.2	Mar. 24, 1950	32.9	Mar. 24, 1952	30.7
May 7, 1938	15.0	Apr. 5, 1951	35.0	Mar. 20, 1953	32.4
Sept. 14, 1938	15.6	Mar. 24, 1952	36.5	Mar. 26, 1954	33.6
Dec. 16, 1938	15.7	Mar. 20, 1953	37.1	Mar. 24, 1955	34.9
Mar. 21, 1939	16.0			Mar. 23, 1956	34.3
June 22, 1939	16.2			Mar. 29, 1957	33.9

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-38-202--Continued		WELL ZA-66-38-304--Continued		WELL ZA-66-39-701	
Apr. 4, 1958	30.1	Mar. 8, 1972	37.0	Owner: Carl Reynolds	
Apr. 3, 1959	30.5	Apr. 5, 1973	37.2	Aquifer: Chicot	
Mar. 22, 1960	27.6	Mar. 5, 1974	33.1	Mar. 22, 1965	23.3
Mar. 14, 1961	22.8	June 14, 1974	35.2	Mar. 22, 1966	23.5
Mar. 30, 1962	22.6	Mar. 4, 1975	33.7	Feb. 9, 1967	22.9
Feb. 25, 1963	23.6			Feb. 10, 1968	23.4
Feb. 17, 1964	23.0	WELL ZA-66-38-501		Mar. 20, 1970	25.4
Mar. 22, 1965	25.7	Owner: Joe Mahalitic		Apr. 12, 1971	29.7
Mar. 22, 1966	30.9	Aquifer: Chicot		Mar. 8, 1972	26.2
Feb. 9, 1967	29.0	Mar. 21, 1949	18.7	Apr. 5, 1973	25.8
Feb. 10, 1968	29.6	Mar. 24, 1950	18.1	Mar. 5, 1974	23.1
Mar. 12, 1969	30.9	Apr. 5, 1951	23.7	Mar. 4, 1975	23.1
Mar. 20, 1970	33.8	Mar. 24, 1952	20.5		
Apr. 12, 1971	26.5	Mar. 20, 1953	22.1	WELL ZA-66-39-801	
Mar. 8, 1972	33.8	Mar. 26, 1954	26.7	Owner: Texas Oil & Gas Co.	
Apr. 5, 1973	32.8	Mar. 24, 1955	27.8	Aquifer: Chicot	
Mar. 5, 1974	29.1	Apr. 4, 1958	29.1	Mar. 21, 1949	19.8
June 14, 1974	28.2	Mar. 22, 1960	16.6	Mar. 24, 1950	20.2
Mar. 4, 1975	28.4	Mar. 14, 1961	12.8	Apr. 5, 1951	21.8
		Mar. 30, 1962	11.3	Mar. 24, 1952	23.5
WELL ZA-66-38-301		Feb. 25, 1963	18.2	Mar. 23, 1953	24.3
Owner: Lakeside		Feb. 17, 1964	18.1	Mar. 26, 1954	25.2
Irrigation Co.		Mar. 27, 1965	19.8	Mar. 24, 1955	26.9
Aquifer: Chicot		Mar. 22, 1966	20.6	Mar. 23, 1956	27.5
Mar. 22, 1965	37.3	Feb. 9, 1967	19.7	Mar. 29, 1957	28.9
Mar. 22, 1966	37.3	Feb. 10, 1968	20.0	Apr. 4, 1958	26.7
Feb. 9, 1967	37.1			Apr. 3, 1959	27.3
Feb. 10, 1968	37.4	WELL ZA-66-38-801		Mar. 14, 1960	26.2
Apr. 12, 1971	45.5	Owner: J. W. Obenhaus		Feb. 18, 1964	29.0
Mar. 8, 1972	43.2	Aquifer: Chicot		Mar. 22, 1965	28.7
Apr. 5, 1973	41.8	Jan. 8, 1960	23.1	July 19, 1965	34.9
Mar. 5, 1974	38.6	Mar. 22, 1965	24.5	Sept. 27, 1965	34.2
Mar. 4, 1975	39.1	Mar. 22, 1966	24.5	Nov. 15, 1965	32.5
		Feb. 9, 1967	24.0	Jan. 28, 1966	30.3
WELL ZA-66-38-304		Feb. 12, 1968	24.8	Mar. 22, 1966	29.6
Owner: Al Mortensen		Apr. 12, 1971	27.1	Mar. 23, 1966	29.8
Aquifer: Chicot		Mar. 8, 1972	26.5	Apr. 19, 1966	30.0
Jan. 8, 1960	33.9	Apr. 5, 1973	25.6	May 18, 1966	30.3
Mar. 23, 1965	32.7	Mar. 5, 1974	23.8	June 16, 1966	30.4
Mar. 22, 1966	33.3			July 28, 1966	34.8
Feb. 9, 1967	32.9			Aug. 25, 1966	35.0
Feb. 12, 1968	33.4			Sept. 22, 1966	35.1
Mar. 12, 1969	34.3			Oct. 20, 1966	33.9
Mar. 20, 1970	36.1			Dec. 21, 1966	31.9
Apr. 12, 1971	38.2				

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-39-801--Continued		WELL ZA-66-40-202		WELL ZA-66-40-504--Continued	
Feb. 9, 1967	31.8	Owner: John F. Browder Aquifer: Chicot		Apr. 8, 1941	22.1
Apr. 20, 1967	37.1			Dec. 20, 1941	21.1
June 21, 1967	39.8	Mar. 30, 1960	31.9	Apr. 4, 1942	21.4
Aug. 23, 1967	39.6	Mar. 22, 1965	35.2	Dec. 18, 1942	23.5
Oct. 26, 1967	37.9	Feb. 9, 1967	35.8	Apr. 4, 1943	22.5
Dec. 11, 1967	36.6	Feb. 12, 1968	37.3	Mar. 22, 1944	21.2
Feb. 10, 1968	34.7	Mar. 24, 1970	39.2	Mar. 27, 1945	21.6
Apr. 18, 1968	34.4	Apr. 9, 1971	39.7	Mar. 17, 1946	22.0
June 20, 1968	36.1	Mar. 7, 1972	44.0	Apr. 27, 1947	21.0
Aug. 22, 1968	38.2	Apr. 4, 1973	43.5	Apr. 8, 1948	21.1
Oct. 17, 1968	39.2	Mar. 5, 1974	41.8	Apr. 21, 1949	22.3
Dec. 20, 1968	39.0			Apr. 24, 1950	21.9
Apr. 17, 1969	36.2	WELL ZA-66-40-401		Apr. 27, 1951	22.2
June 20, 1969	36.7	Owner: Dink Bishop Estate Aquifer: Chicot			
Aug. 21, 1969	37.1			WELL ZA-66-40-902	
Oct. 17, 1969	37.2	Mar. 24, 1960	28.2	Owner: R. H. Vineyard, Jr. Aquifer: Chicot	
Dec. 12, 1969	36.9	Mar. 14, 1961	29.3	Mar. 22, 1965	27.1
Feb. 11, 1970	33.6	Mar. 30, 1962	27.3	Feb. 8, 1967	26.5
Apr. 7, 1970	32.0	Mar. 22, 1965	30.7	Feb. 11, 1968	29.2
June 17, 1970	36.9	Mar. 24, 1966	31.0	Mar. 11, 1969	28.3
Aug. 6, 1970	43.3	Feb. 9, 1967	30.8	Mar. 20, 1970	29.0
Oct. 14, 1970	39.9	Feb. 12, 1968	40.6	Mar. 7, 1972	30.1
Dec. 9, 1970	35.9	Apr. 9, 1971	38.4	Apr. 4, 1973	29.2
Apr. 12, 1971	36.4	Mar. 7, 1972	33.2	Mar. 5, 1974	26.7
Mar. 8, 1972	33.6	Apr. 4, 1973	33.1	July 22, 1974	28.4
Apr. 5, 1973	33.1	Mar. 5, 1974	31.3	Mar. 3, 1975	26.2
Mar. 5, 1974	31.2	July 22, 1974	59.5		
Mar. 4, 1975	31.7	Mar. 3, 1975	32.6		
WELL ZA-66-39-802		WELL ZA-66-40-504		WELL ZA-66-44-805	
Owner: W. A. Harrison Aquifer: Chicot		Owner: Ted Mangum Aquifer: Chicot		Owner: Texas West Indies Aquifer: Chicot	
Feb. 27, 1934	16.9	Feb. 14, 1934	22.4	May 27, 1940	37.0
Apr. 8, 1941	15.0	Aug. 30, 1935	24.0	Apr. 8, 1941	37.1
Dec. 20, 1941	13.2	Feb. 5, 1938	22.8	Dec. 14, 1942	37.7
Apr. 9, 1943	14.3	May 7, 1938	22.2	Apr. 12, 1943	37.3
Mar. 27, 1944	13.2	Sept. 14, 1938	23.6	Mar. 31, 1944	37.7
Apr. 27, 1945	16.2	Dec. 16, 1938	23.2	Apr. 23, 1945	37.6
Apr. 17, 1946	14.2	May 21, 1939	22.9	Apr. 17, 1946	39.3
Mar. 27, 1947	13.3	June 22, 1939	23.2	Mar. 25, 1947	39.1
Mar. 9, 1948	15.0	Sept. 26, 1939	23.3	Mar. 22, 1950	41.5
Mar. 21, 1949	15.6	Dec. 20, 1939	23.4	Apr. 2, 1951	42.6
Mar. 24, 1950	14.8	Mar. 11, 1940	23.2	Mar. 24, 1952	43.4
		Dec. 11, 1940	22.6	Mar. 16, 1953	44.4
				Mar. 22, 1954	45.6





Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-46-703--Continued		WELL ZA-66-47-101		WELL ZA-66-47-703	
Dec. 15, 1938	37.4	Owner: J. E. Heyne Estate		Owner: Normal Lutringer	
Sept. 23, 1939	40.0	Aquifer: Chicot		Aquifer: Chicot	
Mar. 7, 1940	38.2	Apr. 3, 1960	37.8	Mar. 23, 1965	31.8
Dec. 9, 1940	38.9	Mar. 30, 1962	37.2	Mar. 17, 1966	32.3
Apr. 8, 1941	38.1	Mar. 25, 1963	38.9	Feb. 12, 1967	32.5
Dec. 18, 1941	37.5	Feb. 18, 1964	41.4	Feb. 10, 1968	34.1
Apr. 3, 1942	37.1	Mar. 23, 1965	41.3	Mar. 14, 1969	33.5
Apr. 17, 1946	38.4	Mar. 22, 1966	41.7	Mar. 19, 1970	34.0
Mar. 8, 1948	38.3	Feb. 10, 1967	42.5	Mar. 8, 1972	34.7
Mar. 22, 1949	39.7	Feb. 10, 1968	46.3	Apr. 3, 1973	36.7
Mar. 20, 1950	37.6	Mar. 19, 1969	42.8	Mar. 4, 1974	36.4
Apr. 2, 1951	42.1	Mar. 19, 1970	43.5	Mar. 4, 1975	34.0
Mar. 24, 1952	42.7	Apr. 5, 1971	49.2		
Mar. 16, 1953	39.0	Mar. 8, 1972	44.7	WELL ZA-66-48-402	
Mar. 22, 1954	39.1	Apr. 5, 1973	44.8	Owner: City of Wharton #1	
Mar. 21, 1955	39.5	Mar. 4, 1974	43.0	Aquifer: Chicot	
Mar. 19, 1956	40.4	Mar. 4, 1975	42.9	Mar. 24, 1950	29.4
Mar. 25, 1957	50.4			Mar. 26, 1954	36.1
Mar. 26, 1958	48.9	WELL ZA-66-47-301		Mar. 23, 1956	38.8
Mar. 17, 1960	48.5	Owner: R. W. Sawyer		Mar. 25, 1957	40.9
		Aquifer: Chicot		Apr. 2, 1958	38.5
WELL ZA-66-46-802		Mar. 22, 1965	35.8	Mar. 31, 1959	39.7
Owner: Anton Havel		Mar. 22, 1966	36.1	Feb. 22, 1960	42.0
Aquifer: Chicot		Feb. 9, 1967	35.9		
Apr. 1, 1960	42.9	Feb. 12, 1968	39.8	WELL ZA-66-48-403	
Mar. 16, 1961	42.5	Mar. 12, 1969	41.8	Owner: City of Wharton	
Mar. 27, 1962	43.2	Mar. 20, 1970	42.3	Aquifer: Chicot	
Mar. 25, 1963	43.7	Apr. 9, 1971	45.2	Feb. 13, 1934	20.8
Feb. 18, 1964	45.8			June 4, 1934	20.7
Mar. 23, 1965	46.2	WELL ZA-66-47-303		Aug. 30, 1935	20.7
Mar. 18, 1966	47.1	Owner: Albert Chumchal		Aug. 31, 1936	19.9
Feb. 10, 1967	47.9	Aquifer: Chicot		Feb. 4, 1938	20.8
Feb. 10, 1968	48.5	July 15, 1958	35.0	May 7, 1938	20.6
Mar. 19, 1970	51.1	Mar. 22, 1965	35.0	Sept. 14, 1938	22.2
Apr. 5, 1971	62.5	Mar. 24, 1966	35.1	Dec. 17, 1938	22.9
Mar. 8, 1972	52.4	Feb. 9, 1967	35.1	Mar. 21, 1939	22.1
Apr. 5, 1973	50.7	Feb. 10, 1968	35.3	June 22, 1939	21.9
Mar. 4, 1974	49.5	Mar. 12, 1969	38.2	Sept. 26, 1939	22.8
June 18, 1974	63.6	Mar. 19, 1970	39.2	Dec. 18, 1939	22.8
Mar. 4, 1975	52.6	Apr. 9, 1971	43.1	Mar. 11, 1940	23.0
		Mar. 8, 1972	40.5	Apr. 12, 1940	22.7
		Apr. 4, 1973	39.9	June 7, 1940	27.9
		Mar. 5, 1974	38.2	Dec. 11, 1940	22.8
		Mar. 4, 1975	39.9	Apr. 8, 1941	22.6







Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-53-307--Continued		WELL ZA-66-53-504--Continued		WELL ZA-66-53-903	
Oct. 20, 1966	44.7	May 6, 1938	23.9	Owner: Erban Wendell Aquifer: Chicot	
Dec. 20, 1966	44.0	Sept. 15, 1938	28.2	Mar. 22, 1965	44.1
Aug. 22, 1967	45.0	Dec. 15, 1938	24.8	Feb. 10, 1968	50.7
Oct. 26, 1967	44.6	Mar. 20, 1939	26.0	Mar. 18, 1970	44.2
Dec. 13, 1967	43.9	Dec. 15, 1939	28.3	Apr. 7, 1971	63.2
June 20, 1968	43.1	Mar. 7, 1940	26.4	Mar. 10, 1972	53.1
Aug. 22, 1968	78.4	Dec. 4, 1940	27.2	Apr. 2, 1973	49.8
Oct. 17, 1968	80.5	Apr. 8, 1941	27.3	Mar. 7, 1974	46.9
Dec. 18, 1968	78.6	Dec. 18, 1941	27.1	May 17, 1974	81.0
Apr. 16, 1969	75.2	Apr. 4, 1942	26.2	Mar. 5, 1975	57.2
Aug. 21, 1969	78.2	Dec. 15, 1942	26.4	WELL ZA-66-54-108	
Oct. 17, 1969	79.1	Apr. 12, 1943	25.3	Owner: Albert Gadke Aquifer: Chicot	
Dec. 12, 1969	72.9	Mar. 28, 1944	25.7	Mar. 22, 1965	45.6
Feb. 10, 1970	54.5	Apr. 24, 1945	26.6	Feb. 11, 1967	48.0
Apr. 7, 1970	52.9	Apr. 17, 1946	26.1	Feb. 10, 1968	51.2
June 17, 1970	72.4	Mar. 16, 1947	25.8	Mar. 18, 1970	52.1
Aug. 5, 1970	76.2	Mar. 25, 1947	25.8	Apr. 6, 1971	74.8
Oct. 15, 1970	71.1	Mar. 8, 1948	26.9	Mar. 14, 1972	60.6
Dec. 9, 1970	57.6	Mar. 22, 1949	28.8	Apr. 2, 1973	55.1
Apr. 6, 1971	69.0	Mar. 20, 1950	29.2	Mar. 4, 1974	54.7
Mar. 14, 1972	55.5	Apr. 2, 1951	32.2	Mar. 6, 1975	54.2
Apr. 2, 1973	55.4	Mar. 24, 1952	34.3	WELL ZA-66-54-601	
Mar. 4, 1974	55.0	Mar. 16, 1953	35.4	Owner: City of El Campo #4 Aquifer: Evangeline-Chicot	
Mar. 6, 1975	55.9	Mar. 22, 1954	38.2	1951	60
WELL ZA-66-53-503		Mar. 21, 1955	39.8	Mar. 1952	61
Owner: J. W. Gresham Aquifer: Chicot		Mar. 19, 1956	41.6	Mar. 1965	62
Mar. 23, 1965	45.5	Mar. 25, 1957	43.3	Aug. 9, 1966	77.5
Mar. 17, 1966	46.6	Mar. 26, 1958	41.8	Nov. 5, 1968	82.8
Feb. 11, 1967	48.9	Mar. 31, 1959	44.1	Jan. 13, 1970	84.8
Feb. 10, 1968	52.1	Mar. 17, 1960	41.2	WELL ZA-66-54-603	
Apr. 7, 1971	66.6	WELL ZA-66-53-804		Owner: City of El Campo #3 Aquifer: Evangeline	
Mar. 10, 1972	55.0	Owner: Jack Thomas Aquifer: Chicot		Apr. 6, 1947	38
Apr. 2, 1973	53.5	Mar. 23, 1965	46.9	Oct. 21, 1955	56.1
Mar. 7, 1974	52.7	Mar. 17, 1966	47.1	Apr. 1964	62.7
May 17, 1974	76.7	Feb. 10, 1967	49.1	Aug. 9, 1966	73.7
Mar. 6, 1975	60.0	Feb. 9, 1968	52.9	Nov. 5, 1968	75.3
WELL ZA-66-53-504		Mar. 19, 1969	52.1	Jan. 13, 1970	82.7
Owner: H. F. Sharp Aquifer: Chicot		Mar. 18, 1970	53.9	Nov. 1971	81
June 1, 1934	29.0	Apr. 7, 1971	70.3		
Aug. 30, 1935	30.3	Mar. 10, 1972	60.0		
Feb. 4, 1938	24.1	Apr. 2, 1973	57.8		
		Mar. 7, 1974	56.6		
		Mar. 5, 1975	60.0		



Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL DW-66-55-104--Continued		WELL ZA-66-55-109		WELL ZA-66-55-804--Continued	
Oct. 24, 1967	38.6	Owner: Aif N. Nilson		Mar. 11, 1940	15.6
Dec. 12, 1967	38.5	Aquifer: Chicot		Dec. 10, 1940	17.2
Feb. 11, 1968	35.4	Aug. 1938	10	Apr. 8, 1941	15.4
Apr. 18, 1968	37.5	Apr. 5, 1947	20.8	Dec. 19, 1941	14.1
Aug. 22, 1968	37.9	Mar. 23, 1949	23.4	Apr. 4, 1942	13.5
Oct. 17, 1968	38.0	Mar. 22, 1950	23.8	Dec. 17, 1942	13.3
Dec. 19, 1968	37.7	Mar. 26, 1951	25.1	Apr. 12, 1943	12.4
Apr. 16, 1969	34.4	Mar. 26, 1952	26.6	Mar. 29, 1944	12.3
June 19, 1969	35.2	WELL ZA-66-55-501		Apr. 19, 1945	12.9
Aug. 21, 1969	36.5	Owner: Joe Zalman		Apr. 16, 1946	13.0
Oct. 17, 1969	36.5	Aquifer: Chicot		Mar. 26, 1947	12.3
Dec. 12, 1969	36.1	Mar. 23, 1965	32.6	Mar. 23, 1949	14.0
Feb. 11, 1970	35.9	Mar. 16, 1966	33.1	Mar. 23, 1950	14.0
Apr. 7, 1970	35.6	Feb. 9, 1967	34.3	Apr. 4, 1951	15.8
June 17, 1970	36.3	Feb. 11, 1968	38.5	Mar. 26, 1952	16.9
Aug. 5, 1970	37.0	Mar. 13, 1969	37.5	Mar. 16, 1953	17.9
Oct. 14, 1970	36.6	Mar. 17, 1970	36.6	Mar. 25, 1954	18.7
Dec. 9, 1970	36.4	Apr. 8, 1971	43.5	Mar. 23, 1955	19.7
Apr. 6, 1971	37.0	Mar. 9, 1972	38.9	Mar. 23, 1956	20.9
Mar. 8, 1972	37.1	Apr. 3, 1973	38.4	Mar. 28, 1957	21.0
Apr. 3, 1973	37.4	Mar. 8, 1974	37.0	Mar. 28, 1958	20.1
Mar. 4, 1974	38.6	June 5, 1974	54.4	Apr. 1, 1959	21.4
June 4, 1974	37.3	Mar. 5, 1975	40.0	Mar. 17, 1960	21.2
Mar. 4, 1975	36.9	WELL ZA-66-55-703		Mar. 15, 1961	19.8
WELL ZA-66-55-105		Owner: J. K. Allen		Mar. 27, 1962	22.5
Owner: W. F. Kainer		Aquifer: Chicot		Feb. 26, 1963	20.7
Aquifer: Chicot		Mar. 23, 1965	41.0	Feb. 18, 1964	21.3
Sept. 19, 1958	33.5	Mar. 18, 1966	35.7	Mar. 23, 1965	22.4
July 12, 1963	38.4	Feb. 11, 1967	36.8	Mar. 18, 1966	25.4
Mar. 23, 1965	46.5	Mar. 17, 1970	37.2	Feb. 8, 1967	22.9
Mar. 17, 1966	39.0	WELL ZA-66-55-804		Feb. 11, 1968	23.6
Feb. 12, 1967	38.3	Owner: J. C. Allen		Mar. 13, 1969	23.7
Mar. 14, 1969	39.7	Aquifer: Chicot		Mar. 17, 1970	21.2
Mar. 19, 1970	40.2	Mar. 21, 1934	15.4	Apr. 8, 1971	24.1
Apr. 6, 1971	45.7	Aug. 30, 1935	20.4	Mar. 9, 1972	23.8
Mar. 8, 1972	42.3	May 6, 1938	19.5	Apr. 3, 1973	24.0
Apr. 3, 1973	42.6	Sept. 16, 1938	18.8	Mar. 8, 1974	21.0
Mar. 4, 1974	43.7	Dec. 16, 1938	15.8	June 5, 1974	23.3
June 17, 1974	52.8	Mar. 21, 1939	15.5	Mar. 5, 1975	23.1
Mar. 4, 1975	42.9	Sept. 25, 1939	17.6		
		Dec. 19, 1939	16.1		







Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-62-307--Continued		WELL ZA-66-62-404--Continued		WELL ZA-66-62-603	
June 20, 1967	44.1	Apr. 3, 1973	51.2	Owner: Frank Ramsey	
Aug. 22, 1967	43.7	Mar. 7, 1974	46.8	Aquifer: Chicot	
Oct. 24, 1967	43.2	Mar. 5, 1975	55.1	Apr. 25, 1940	21.2
Dec. 12, 1967	43.2			Apr. 8, 1941	20.4
Feb. 9, 1968	43.1	WELL ZA-66-62-415		Dec. 19, 1941	20.5
Apr. 18, 1968	43.1	Owner: Kountz-Stewart		Apr. 4, 1942	19.6
June 19, 1968	42.8	Aquifer: Chicot		Dec. 17, 1942	20.3
Aug. 22, 1968	43.1	Mar. 17, 1960	41.8	Apr. 12, 1943	19.5
Oct. 17, 1968	43.8	Mar. 15, 1961	39.7	Mar. 30, 1944	20.1
Dec. 19, 1968	42.5	Mar. 27, 1962	37.9	Apr. 19, 1945	20.6
Feb. 20, 1969	42.1	Feb. 26, 1963	45.7	Apr. 16, 1946	21.4
Apr. 17, 1969	41.4	Feb. 7, 1964	47.0	Mar. 26, 1947	20.2
June 19, 1969	42.8	Mar. 22, 1965	47.5	May 23, 1949	23.9
Aug. 21, 1969	42.1	Mar. 18, 1966	46.0	Mar. 23, 1950	24.2
Oct. 17, 1969	42.2	Feb. 7, 1967	49.8	Apr. 4, 1951	26.6
Dec. 12, 1969	42.3	Feb. 9, 1968	56.4	Mar. 26, 1952	28.6
Feb. 10, 1970	41.9	Mar. 17, 1970	55.6	Mar. 16, 1953	30.6
Apr. 7, 1970	41.5	Apr. 7, 1971	86.5	Mar. 22, 1954	33.3
June 17, 1970	42.0	Mar. 9, 1972	58.6	Mar. 21, 1955	35.4
Oct. 14, 1970	41.7	Apr. 3, 1973	58.0	Mar. 23, 1956	36.7
Dec. 9, 1970	42.0	Mar. 7, 1974	58.2	Mar. 28, 1958	39.4
Apr. 7, 1971	40.8	Apr. 26, 1974	67.9	Apr. 1, 1959	43.6
Mar. 9, 1972	42.7	Mar. 5, 1975	61.8	Mar. 17, 1960	41.4
Apr. 3, 1973	44.2			Mar. 15, 1961	39.7
Mar. 7, 1974	41.1	WELL ZA-66-62-505		Mar. 17, 1962	41.7
Apr. 11, 1974	41.5	Owner: Walter Garrett, Sr.		Feb. 26, 1963	42.4
Mar. 5, 1975	43.0	Aquifer: Chicot		Feb. 7, 1964	44.9
		Mar. 17, 1960	38.4	Mar. 22, 1965	45.4
WELL ZA-66-62-401		Mar. 20, 1964	42.3	Mar. 17, 1966	46.2
Owner: Louis Carriere		Apr. 11, 1974	56.0	Feb. 9, 1967	46.8
Aquifer: Chicot		Mar. 3, 1975	53.2	Mar. 18, 1969	49.4
June 12, 1940	30.0			Mar. 16, 1970	50.5
Apr. 5, 1947	18.7	WELL ZA-66-62-601		Apr. 7, 1971	57.0
May 15, 1974	97.3	Owner: J. L. Myatt		Mar. 9, 1972	52.5
Mar. 3, 1975	55.8	Aquifer: Chicot		Apr. 3, 1973	52.3
		Mar. 23, 1949	28.4	Mar. 7, 1974	51.8
WELL ZA-66-62-404		Mar. 23, 1950	29.4	Mar. 5, 1975	52.2
Owner: J. W. Gresham		Apr. 4, 1951	32.5		
Aquifer: Chicot		Mar. 26, 1952	34.3	WELL ZA-66-62-708	
Mar. 22, 1965	34.3	Mar. 16, 1953	35.7	Owner: Stoval & Appling	
Mar. 18, 1966	46.0	Mar. 21, 1955	43.9	Aquifer: Chicot	
Feb. 9, 1967	47.5	Mar. 23, 1956	43.0	June 1, 1934	15.9
Apr. 7, 1971	90.6	Mar. 28, 1958	44.1	Aug. 30, 1935	16.4
Mar. 9, 1972	55.1			Feb. 4, 1938	16.1

Table 7.--Water levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-62-708--Continued		WELL ZA-66-62-904--Continued		WELL ZA-66-63-105--Continued	
May 6, 1938	16.0	Apr. 1, 1959	42.4	Mar. 22, 1956	27.9
Sept. 15, 1938	16.7	Mar. 17, 1960	42.8	Mar. 17, 1960	28.6
Dec. 16, 1938	15.9	Mar. 15, 1961	41.2	Mar. 15, 1961	27.6
Mar. 22, 1939	15.7	Mar. 27, 1962	46.1	Feb. 26, 1963	28.9
Sept. 25, 1939	17.0	Feb. 26, 1963	48.8	Feb. 18, 1964	30.5
Dec. 16, 1939	17.0	Feb. 7, 1964	57.2	Mar. 22, 1965	30.5
Mar. 11, 1940	16.9	Mar. 22, 1965	59.6	Mar. 18, 1966	31.0
Dec. 9, 1940	19.2	Mar. 18, 1966	54.3	Feb. 9, 1967	31.2
Apr. 8, 1941	15.4	Feb. 7, 1967	59.4	Mar. 16, 1970	48.4
Dec. 19, 1941	14.6	Feb. 9, 1968	64.4	Apr. 8, 1971	33.4
May 4, 1942	14.1	Mar. 13, 1969	67.8	Mar. 9, 1972	31.4
Dec. 17, 1942	13.7	Mar. 16, 1970	61.2	Apr. 3, 1973	29.6
Apr. 12, 1943	12.4			Mar. 8, 1974	26.2
Mar. 30, 1944	12.6	WELL ZA-66-63-105		May 13, 1974	30.3
Apr. 28, 1945	20.1	Owner: C. T. Blankenburg		Mar. 5, 1975	29.8
Apr. 16, 1946	21.5	Aquifer: Chicot			
Mar. 26, 1952	28.9	Aug. 30, 1935	19.1	WELL ZA-66-63-201	
Mar. 19, 1953	28.6	Feb. 3, 1938	18.7	Owner: J. K. Allen	
Mar. 21, 1955	26.0	May 6, 1938	14.9	Aquifer: Chicot	
Mar. 22, 1956	30.0	Sept. 16, 1938	21.1	Mar. 23, 1956	37.1
Mar. 28, 1958	23.7	Dec. 16, 1938	17.2	Mar. 28, 1958	37.4
Apr. 2, 1959	17.3	Mar. 23, 1939	16.8	Apr. 1, 1959	38.2
		June 22, 1939	20.1	Feb. 26, 1963	41.4
		Sept. 25, 1939	19.1	Feb. 18, 1964	47.1
WELL ZA-66-62-805		Dec. 19, 1939	17.4	Mar. 18, 1966	47.8
Owner: Henderson Brothers		Mar. 11, 1940	17.3	Feb. 10, 1967	48.5
Aquifer: Chicot		Dec. 11, 1940	17.3	Mar. 17, 1970	57.2
Mar. 22, 1965	41.4	Apr. 8, 1941	16.0		
Mar. 18, 1966	36.5	Dec. 19, 1941	15.3	WELL ZA-66-63-403	
Feb. 7, 1967	37.7	Apr. 4, 1942	14.5	Owner: H. D. Madsen	
Feb. 9, 1968	40.1	Dec. 17, 1942	15.7	Aquifer: Chicot	
Mar. 17, 1970	50.7	Apr. 12, 1943	13.7	1958	34
Apr. 7, 1971	66.6	Mar. 29, 1944	14.7	July 1962	68
Mar. 9, 1972	49.2	Apr. 19, 1945	15.5	June 4, 1974	110.5
Apr. 3, 1973	46.7	Apr. 16, 1946	17.2	Mar. 7, 1975	69.5
Mar. 7, 1974	43.6	Mar. 26, 1947	14.9		
Apr. 24, 1974	48.1	Mar. 9, 1948	15.4	WELL ZA-66-63-503	
Mar. 5, 1975	46.1	Mar. 23, 1949	18.2	Owner: Verner Petersen	
		Mar. 23, 1950	18.2	Aquifer: Chicot	
WELL ZA-66-62-904		Apr. 5, 1951	20.3	Mar. 23, 1965	28.3
Owner: R. B. Wallace		Mar. 26, 1952	21.8	Mar. 18, 1966	31.2
Aquifer: Chicot		Mar. 16, 1953	23.2	Feb. 7, 1967	32.1
Mar. 21, 1956	44.9	Mar. 25, 1954	26.1	Feb. 9, 1968	29.7
Mar. 28, 1957	49.2	Mar. 23, 1955	29.0	Mar. 13, 1969	24.7
Mar. 28, 1958	41.3				

Table 7.--Water Levels in wells in Colorado, Lavaca, and Wharton Counties--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
WELL ZA-66-63-503--Continued					
Mar. 16, 1970	32.8				
Apr. 8, 1971	49.5				
Mar. 9, 1972	41.0				
WELL ZA-66-63-504					
Owner: Harry Shannon, Leon Wolfe					
Aquifer: Chicot					
Feb. 27, 1967	42.2				
Mar. 13, 1969	60.4				
Mar. 16, 1970	64.9				
Apr. 8, 1971	88.5				
Mar. 9, 1972	69.4				
Apr. 3, 1973	67.1				
Mar. 8, 1974	62.7				
May 13, 1974	87.6				
Mar. 5, 1975	71.0				
WELL ZA-66-63-605					
Owner: J. L. Myatt					
Aquifer: Chicot					
Mar. 23, 1965	25.3				
Mar. 18, 1966	18.6				
Feb. 7, 1967	28.0				
Feb. 11, 1968	28.0				
Mar. 13, 1969	30.7				
Mar. 17, 1970	26.5				
Mar. 9, 1972	25.0				
Apr. 3, 1973	23.7				
Mar. 8, 1974	21.4				
May 14, 1974	21.8				
Mar. 5, 1975	21.2				

Table B.--Water-quality data for ground-water samples collected in Colorado, Laraca, and Wagon Counties

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (ug/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Buckeville confining layer; C, Chisot aquifer; Ca, Catalina Sandstone (Tuff); E, Evansaline aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OR PRODUCING INTERVALS (FE)	WATER BREAKING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (MG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	RI/CAR-BONATE (MG/L)	CAR-BONATE (MG/L)	DIS-SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLOUORIDE (F) (MG/L)	DIS-SOLVED NITRINE PLAIN (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED ORTHO PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF COARSE-TURBIDITY) (MG/L)	HARDNESS (CA, MG/L)	PER-CENT SODIUM	NR-SIDUAL CAR-BORATE (RSC)	SODIUM AD-SORP-TION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH	TEMPERATURE (°C)
COLORADO COUNTY 19-10-11-202					126-140	B	2-11-74	--	0	0	--	--	390	D	5.6	72	--	--	--	--	350	--	0	--	861	7.0	24.0
		602	Ca	2-12-74	--	--	--	--	--	--	--	860	D	.4	150	--	--	--	--	21	--	15.3	--	1860	7.9	25.0	
		270	E	1-24-74	--	--	--	--	--	--	--	370	D	16	120	--	--	--	--	360	--	0	--	1000	7.2	--	
		17-303	B	1-22-74	--	--	--	--	--	--	--	311	D	13	160	--	--	--	--	340	--	0	--	1000	7.2	--	
		13-102	C	3-16-74	--	50	--	--	--	--	--	240	D	5.6	26	--	--	--	--	180	--	.3	--	451	8.0	24.0	
		902	C	1-15-74	--	--	--	--	--	--	--	37	D	4.0	68	--	3.5	--	--	88	--	0	--	373	6.1	--	
		14-302	C	1-15-74	--	--	--	--	--	--	--	40	D	1.2	12	--	2.2	--	--	38	--	0	--	157	6.3	--	
		18-302	J	1-24-74	20	--	--	26	10	240	--	314	D	5.2	220	0.3	.00	--	160	700	110	83	3.8	10	1140	7.7	--
		601	J	4-17-37	--	--	--	18	3	69	--	232	--	11	4	--	--	--	219	60	72	2.7	74	--	--		
		244-602	J	2-13-65	--	180	<50	120	18	87	--	328	D	21	200	.4	.09	--	--	610	380	33	0	1.9	1260	7.2	22.0
		602	J	4-16-37	--	--	--	31	5	190	--	378	--	11	130	--	--	--	557	100	81	4.2	8.3	--	--		
		200-605	J	2-21-64	18	140	--	30	8.7	170	6.6	313	17	7.6	130	.5	.13	--	242	110	75	3.5	7.0	987	8.4	22.5	
		200-605	J	2-15-63	--	120	50	150	18	7	--	323	D	67	220	.5	<.09	--	--	612	440	5	0	.1	1410	7.1	--
		603	J	2-15-65	--	80	50	21	6	200	--	401	--	7	130	.3	<.09	--	--	77	85	5.0	9.9	1030	7.7	--	
		604	J	2-15-65	--	20	<2000	9	--	350	--	662	D	<.4	180	.3	<.09	--	--	1390	540	--	--	--	1610	7.2	--
		605	Ca	2-15-65	--	280	50	8	--	640	--	1390	D	<.4	200	1.1	<.09	--	--	1100	--	--	--	--	2000	7.8	--
		19-402	B	2-14-74	--	--	--	--	--	--	--	370	D	21	120	--	--	--	--	320	--	0	--	972	7.2	--	
		604	B	1-26-74	--	--	--	--	--	--	--	336	D	17	250	--	--	--	--	408	--	0	--	1330	7.5	--	
		20-102	B	2-13-74	--	--	--	--	--	--	--	250	D	12	16	--	--	--	--	210	--	0	--	488	7.3	--	
		205	C	4-08-37	--	20	--	96	8	26	4.8	305	D	15	30	.2	9.9	--	--	340	270	17	0	.7	--	--	
		38	C	1944	13	20	--	120	10	13	4.8	352	D	18	19	.2	7.6	--	--	374	330	8	0	.3	668	8.4	22.0
		303	K	1-25-74	--	--	--	--	--	--	--	300	D	15	62	--	--	--	--	210	--	.7	--	698	7.7	--	
		604	K	1-28-74	--	--	--	--	--	--	--	360	D	18	160	--	--	--	--	270	--	.4	--	1050	7.6	--	
		607	K	2-14-74	--	0	0	44	17	190	--	400	D	12	180	.4	.00	.01	288	640	190	70	2.9	6.3	1210	7.6	--
		609	J	4-16-37	--	--	--	29	12	230	--	195	--	30	260	--	17.2	--	--	680	120	81	.8	9.2	--	--	
		502	B	11-13-73	26	0	0	120	10	78	--	354	D	43	130	.9	.7	--	100	581	340	53	.0	1.8	1040	7.3	--
		503	B	11-13-73	22	0	0	73	7.3	23	--	244	D	12	34	.2	.00	--	0	291	210	19	.0	.7	530	7.1	--
		505	E	11-14-72	22	330	<20	28	12	90	--	311	D	19	120	.9	.13	--	--	489	240	44	1.2	2.5	900	7.3	--
		602	K	2-23-68	18	160	--	59	14	110	--	354	D	6	110	--	--	--	--	495	200	55	1.7	3.5	895	7.4	--
		804	E-K	5-22-74	23	20	--	62	14	200	3.3	332	D	20	240	.4	--	--	450	726	210	67	1.2	6.0	1330	7.5	25.0
		901	E-K	4-14-71	22	--	--	100	19	130	--	323	--	31	240	.3	.09	--	--	701	340	46	.0	3.0	--	--	
		902	E-B	8-10-55	21	--	--	54	8.4	140	2.5	243	D	5.7	200	--	.18	--	600	549	170	64	.6	4.7	1020	8.0	--
		293-767	E-B	5-22-74	--	30	--	57	14	--	--	368	D	22	130	--	--	--	--	200	--	--	--	--	1020	7.5	24.4
		903	E-B-C	7-15-55	27	--	--	38	4	150	1.6	260	--	7	160	--	--	--	1300	504	110	74	2.0	6.1	--	--	
		115-903	E-B-C	5-22-74	--	--	--	64	8.0	--	--	286	D	12	160	--	--	--	--	190	--	--	--	--	967	7.3	26.0
		904	E-B	5-22-74	29	20	0	43	9.0	140	2.3	352	D	16	160	.3	.07	.01	280	523	140	67	1.2	5.1	945	7.6	24.0
		11-301	K	1-02-74	30	--	--	37	3.1	17	--	128	D	2.4	22	.2	.8	--	20	174	100	26	0	.7	309	7.3	22.0
		402	C	1-06-74	--	--	--	--	--	--	--	224	D	10	65	--	1.3	--	--	230	--	0	--	620	7.1	--	
		601	E-C-B	7-21-55	29	--	--	41	3.7	51	--	199	D	11	37	--	.26	--	0	270	120	49	.9	2.0	446	7.9	24.0
		603	E-C	7-08-69	28	--	--	51	4	31	--	167	--	8	44	.2	.09	--	--	248	140	32	.0	1.1	--	--	

See footnotes at end of table.

TABLE B.--Water-quality data of samples collected in Colorado, Iowa, and Whatcom Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (ug/L), except sodium:adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Burlington confining layer; C, Chicot aquifer; Ca, Catiboula Sandstone (uff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	CWNR#	DEPTH OR PRODUCING INTERVAL (FT)	WATER ANALYSIS UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED POTASSIUM (K) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	CARBONATE HARDNESS (MG/L)	DIS-SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLOUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG)	PERCENT SODIUM	RESIDUAL SODIUM CHLORIDE (RSC)	SODIUM ADSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (°C)	
EW-66-21-604		174-681	E-C	5-22-74	32	20	--	50	3.3	24	1.4	158	0	7.6	43	0.1	0.18	--	50	240	140	28	0	0.9	416	7.5	23.0	
801		55	C	5-22-74	--	--	--	82	15	--	--	332	0	2.1	49	--	--	--	--	270	--	--	--	--	663	7.2	--	
902		800	E-C	3-21-56	23	--	--	60	4.4	25	1.5	162	0	7.7	61	--	.23	--	270	262	170	26	0.0	.8	467	7.7	23.0	
800		7-08-69	E-C		28	--	--	61	2	22	--	151	--	8	54	.1	.34	--	249	160	23	0.0	.8	467	7.7	23.0		
800		5-22-74	E-C		--	--	--	58	3.5	--	--	158	0	7.5	56	--	--	--	160	160	23	0.0	--	467	7.4	23.3		
22-201		187-995	E	7-07-69	26	--	--	42	3	28	--	161	--	7	26	.2	.4	--	--	211	120	36	.3	1.1	--	--	--	
401		812	E-C	7-08-69	27	--	--	52	4	29	--	154	--	17	46	.2	.34	--	--	251	150	30	.0	1.0	--	--	--	
405		167-830	E-C	5-22-74	29	20	--	50	3.9	35	2.8	178	0	9.8	42	.1	.35	--	110	259	140	35	.1	1.3	461	7.5	23.5	
504		931	E-C	5-22-74	28	--	--	42	6.1	43	2.9	205	0	11	33	.2	.08	--	60	267	130	41	.8	1.6	461	7.5	25.5	
701		209-947	E-C	5-22-74	30	--	--	54	4.3	46	1.4	170	0	7.2	76	.2	.11	--	70	301	150	38	0	1.6	550	7.7	24.5	
26-202		105-126	E	1-29-74	--	--	--	--	--	--	--	382	0	17	130	--	--	--	--	210	--	--	--	2.1	1060	7.2	20.5	
27-704		127-146	C	2-21-74	--	0	--	--	--	--	--	290	0	31	160	--	--	--	--	360	--	0	--	--	1020	7.3	--	
28-304		357-754	B	5-23-74	2.4	20	--	34	9.7	170	3.2	799	0	13	110	.3	.03	--	--	538	120	74	0	6.6	976	7.8	26.0	
402		150-621	C-E	7-10-69	31	--	--	59	4	25	--	179	--	8	52	.3	.09	--	--	267	160	25	0	.8	--	--	--	
503		240-631	E-C	5-22-74	28	--	--	83	14	82	3.4	220	0	21	170	.3	.00	--	70	510	270	40	0	2.2	962	7.8	--	
508		226-769	E-C	5-22-74	30	20	--	84	10	63	2.2	189	0	21	140	.2	.01	--	80	443	250	21	0	1.7	--	7.9	24.5	
602		170-375	E-C	5-26-74	--	--	--	47	6.0	--	--	184	0	12	54	--	--	--	--	140	--	--	--	--	522	7.4	23.5	
604	4/	256-271	C	8-12-69	11	20	--	46	5.4	32	--	156	0	9.7	48	--	--	--	--	229	140	34	0	1.2	433	7.5	--	
805		290-760	E-C	5-22-74	31	20	--	43	6.3	51	2.2	221	0	9.5	41	.2	.09	--	80	293	130	45	1.0	1.9	504	7.5	--	
901		100-601	C-E	7-15-55	28	--	--	37	3.3	85	0	255	--	8.9	52	--	.5	--	100	342	110	62	1.9	3.5	563	8.0	24.0	
100-601		3-20-56	C-E		21	--	--	--	--	--	--	179	0	--	63	--	.5	--	--	170	0	0	0	0	506	7.7	24.0	
100-601		4-15-71	C-E		21	--	--	33	7	85	--	375	--	9	47	.2	.09	--	337	110	62	2.3	3.5	--	--	--	--	
902		650	E-C	7-11-69	34	--	--	170	7	66	--	250	--	22	170	.2	.09	--	--	536	320	31	0	1.6	--	--	--	
904		266-990	E-C	5-24-74	38	--	--	110	5.7	48	1.4	203	0	17	150	.1	.26	--	60	470	300	26	0	1.2	834	7.7	22.0	
905		172-654	E-C	5-24-74	31	--	--	50	4	25	1.3	152	0	9.2	42	.1	.08	--	40	237	140	28	0	.9	419	7.6	22.0	
907		1000	E-C	5-24-74	24	--	--	39	8.0	110	2.8	286	0	14	86	.5	.03	--	440	424	130	64	2.0	4.2	750	8.0	24.0	
29-101		203-611	E	5-23-74	--	--	--	99	7.7	--	--	205	0	21	170	--	--	--	--	280	--	--	--	2.2	--	962	7.3	23.0
106		170-675	E-C	5-23-74	33	--	--	140	11	110	2.2	201	0	31	300	.1	.23	--	80	726	390	36	0	2.4	1390	7.4	23.0	
302		157-395	C-E	5-24-74	29	20	--	51	4.2	23	1.5	161	0	7.9	42	.2	.13	--	237	140	25	0	.8	420	7.8	23.0		
402		632	C-E	5-24-74	28	--	--	51	6.7	43	2.0	192	0	13	53	.2	.03	--	90	291	150	37	1.5	1.5	510	7.5	23.0	
501		--	C	7-08-69	22	--	--	48	7	98	--	273	--	14	93	.4	.09	--	--	416	150	58	1.5	3.5	--	--	--	
--		--	C	5-26-74	30	--	--	71	5.8	41	1.6	227	0	14	66	.1	.31	--	--	342	200	31	0	1.3	605	7.5	23.0	
30-101	1/	350-527	E-C	12-28-55	29	10	0	44	3.2	16	1.4	144	0	4.2	28	.2	.11	0.01	30	197	120	22	.00	.6	326	7.6	24.0	
350-527		9-03-68	E-C		--	<20	<50	46	3	15	--	142	0	6	27	.2	<.09	--	--	167	130	20	0	.6	342	7.9	--	
102		350-527	E-C	5-17-50	27	30	--	45	3.5	15	7.2	146	0	5.3	30	.1	.11	--	110	205	130	19	.00	.6	340	7.6	27.0	
103		190-490	C-E	5-09-60	30	--	--	91	8.1	42	1.6	228	0	14	110	.2	.34	--	170	409	260	26	.00	1.1	742	7.1	24.5	
202		274-460	C	4-22-37	--	--	--	22	7	120	--	238	--	34	64	--	--	--	--	382	80	75	2.2	5.6	--	--	--	
274-460		2-21-44	C		25	50	--	58	4.3	16	2.3	167	0	7.6	41	.3	.23	--	--	236	160	17	0	.5	422	8.6	21.5	
203		360-806	E-C	5-24-74	29	--	--	45	6.0	25	1.7	164	0	7	29	.2	.14	.00	50	221	130	29	.1	1.0	379	7.7	23.0	
206		462-462	E	2-21-44	24	40	--	49	3.3	12	4.1	134	11	4.7	29	.0	.11	--	--	198	140	16	0	.4	425	8.6	23.5	
701		152-427	E	5-24-74	29	10	--	99	12	31	2.0	322	0	9.7	49	.2	.01	--	70	300	300	13	0	.5	668	7.2	22.0	

See footnote at end of table.

TABLE 8.--Water-quality data of samples collected in Colorado, Lavaca, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (µg/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: H, Marcelline confining layer; C, Chicot aquifer; Ca, Catahoula Sandstone (ToU); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	NUMBER	DEPTH OR PRODUCTION INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GAN-SESE (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	FLUORIDE (F) (MG/L)	CAR-BONATE (CO <sub>3</sub> ) (MG/L)	DIS-SOLVED SUL-FATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITR-ATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED NITR-ITE (NO <sub>2</sub> ) (MG/L)	DIS-SOLVED PHOS-PHATE (PO <sub>4</sub> ) (MG/L)	DIS-SOLVED BORO-N (B) (UG/L)	DIS-SOLVED SILICA (SUM OF DISSOLVED) (MG/L)	HARD-NESS (CA, MG)	PAR-TICU-LAR MATTER (MG/L)	RES-IDUAL SODIUM (RSR) (MG/L)	SODIUM AD-SORP-TION RATIO (SAR)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	PH	TEM-PERATURE (°C)
DA-66-31-203		212-447	C	5-24-74	31	--	--	48	2.4	18	0.9	128	U	5.4	42	0.1	0.10	--	30	211	130	23	0	0.7	365	7.6	22.0	
15-201		600-630	E	3- -65	16	70	--	23	5	180	--	422	0	2	90	--	--	0.64	--	526	80	84	5.3	9.0	890	7.8	--	
303		101-805	C-H	7-08-60	26	--	--	66	5	28	1.8	228	--	6	44	--	--	--	--	294	180	25	1	9	--	--	--	
		101-805	C-H	4-15-71	28	--	--	60	9	42	--	215	--	12	64	1.1	0.09	--	--	321	190	33	0	1.3	--	--	--	
3/3/	204	764-784	E	9-10-65	14	30	--	11	3	196	--	378	0	0	109	--	--	--	--	519	40	91	5.4	13.5	870	8.0	--	
		695-820	E	9-28-65	14	180	--	13	3	194	--	366	0	0	106	--	--	--	--	716	45	--	--	--	883	8.0	--	
36-103		695-816	E	10-25-65	15	140	--	14	2	203	--	359	0	0	136	--	--	--	--	45	45	30	1.1	1.1	503	7.4	23.0	
202		600	B-C	5-24-74	32	--	--	56	4.3	31	1.5	177	0	9.6	55	2	0.08	--	50	277	160	30	.25	1.1	503	7.4	23.0	
603		470-690	B-C	5-23-74	38	60	--	71	5.2	49	1.0	214	0	12	81	2	0.08	--	60	363	200	35	.46	1.5	641	7.6	23.0	
604		103-403	C	5-23-74	44	10	--	110	8.5	78	1.1	281	0	17	160	2	0.17	--	80	556	310	35	1.58	1.9	995	7.3	23.0	
902		100	C	5-23-74	41	20	--	120	9.7	73	1.1	266	0	24	190	1	0.12	--	90	591	340	31	2.42	1.7	1100	7.2	21.0	
37-101		236	C	5-23-74	38	--	--	90	6.6	58	1.2	222	0	15	120	1	0.33	--	60	440	250	53	1.40	1.6	797	7.4	23.0	
308		80-210	C	5-23-74	29	20	--	57	3.6	26	1.2	200	0	9.0	33	1	0.79	--	50	261	160	26	0	.9	445	8.0	23.0	
402		75-297	C	5-23-74	37	--	--	140	11	95	1.5	279	0	28	230	2	0.31	--	70	682	400	34	3.32	2.1	1250	7.4	--	
404			--	7-31-59	49	--	--	99	27	6990	--	1,720	0	55	9990	--	--	--	--	18100	358	88	--	160	27500	6.8	32.0	
608		197-515	C	8-16-66	22	<20	--	52	5	25	--	188	0	7	29	--	--	--	--	328	149	--	--	--	388	7.6	--	
609		102-110	C	4-19-37	--	--	--	78	10	60	--	293	--	25	66	--	--	--	--	393	236	--	--	--	--	--	--	
		102-110	C	1-09-74	--	--	--	--	--	--	--	368	0	17	72	--	--	--	--	--	260	--	3.63	--	704	8.0	--	
610		58- 62	C	4-19-37	--	--	--	54	3	32	--	159	--	33	31	--	--	--	--	262	147	--	--	--	--	--	--	
701		184	C	7-30-59	38	--	--	158	13	97	1.8	264	--	27	290	--	0.23	--	200	755	--	31.9	.00	1.99	--	--	--	
703		60-361	U	7-50-59	35	--	--	120	9	91	1.5	254	--	25	208	--	0.02	--	120	617	328	36.9	.00	2.15	1120	6.8	18.0	
		60-361	C	4-14-71	38	--	--	202	12	120	--	279	--	42	388	1	0.45	--	--	939	--	32	.00	2.21	--	--	--	
		60-361	C	5-23-74	41	--	--	180	14	120	1.5	262	0	39	340	1.1	0.47	--	--	867	510	34	5.84	2.3	1570	7.6	22.0	
706		80	C	11-29-73	--	--	--	--	--	--	--	276	0	34	270	--	--	--	--	--	420	--	0	--	1370	7.2	--	
801		153	C	7-30-59	37	--	--	168	14	102	1.9	268	0	33	310	--	0.23	--	120	799	476	31.5	.00	2.00	1450	6.6	18.0	
905		120	C	7-08-69	18	--	--	76	7	45	--	261	--	19	57	3	0.90	--	--	354	--	30.9	.00	1.32	--	--	--	
38-104		60	C	4-20-37	--	--	--	--	--	--	--	--	--	94	76	--	--	--	--	--	--	--	--	--	--	--	--	
43-901		525	C	4-15-71	31	--	--	88	13	65	--	232	--	23	176	2	0.09	--	--	530	--	40.3	.00	2.23	--	--	--	
906		230	C	1-18-74	--	--	--	--	--	--	--	144	0	10	66	--	--	--	--	170	--	0	--	--	477	7.7	--	
44-304		270	C	5-23-74	39	20	--	120	9.0	67	1.4	314	0	18	150	1	0.11	--	90	560	340	30	1.58	1.6	1016	7.7	22.0	
409		900	B-C	5-23-74	36	--	--	50	5	43	1.3	204	0	10	44	2	0.12	--	70	291	150	39	.00	1.6	496	7.5	23.0	
602		99	C	5-23-74	34	20	--	66	3.4	18	1.2	157	0	6.4	26	1	0.08	--	40	215	130	23	.002	1.7	356	7.7	23.0	
702		676	C-E	5-9-60	31	--	--	45	6.6	47	1.7	200	0	11	54	3	0	--	190	295	140	42	.53	1.7	505	7.4	25.5	
705		233-696	B-C	5-23-74	31	--	--	49	6.4	57	1.8	202	0	14	61	2	0.01	--	90	320	150	45	.00	2.0	567	7.7	24.0	
45-101		87	C	7-08-69	35	--	--	138	11	75	--	251	--	24	219	3	0.09	--	--	626	--	29.5	.00	1.65	--	--	--	
LAVACA COUNTY		232-252	E	1-18-74	33	10	--	87	9.8	120	--	330	0	22	160	3	0.00	--	--	598	260	51	.26	3.3	1060	7.5	--	
RY-66-75-202		63- 84	E	3-05-74	--	--	--	--	--	--	--	422	0	--	140	--	--	--	--	--	440	--	0.00	--	1120	7.1	--	
301		114-118	H	3-05-74	--	--	--	--	--	--	--	566	0	--	540	--	--	--	--	--	540	--	.00	--	2900	7.4	--	
703		240 <sup>1</sup>	E	3-05-74	--	--	--	--	--	--	--	454	0	--	130	--	--	--	--	--	350	--	.44	--	1140	7.3	--	
27-702		160-190	E	3-05-74	--	--	--	--	--	--	--	346	0	--	170	--	--	--	--	--	340	--	.00	--	1110	7.6	--	
33-201		140 <sup>2</sup>	E	3-06-74	--	--	--	--	--	--	--	380	0	--	150	--	--	--	--	--	380	--	.00	--	1170	7.3	--	

See footnotes at end of table.

TABLE 8.--Water-quality data of samples collected in Colorado, Lovace, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/l) or micrograms per liter (µg/l), except sodium absorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Burkavilla confining layer; C, Chicot aquifer; Ca, Catahoula Sandstone (buff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	OWNER	WQPPH OR PRODUCING INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (MG/L)	DIS-SOLVED MANGANESE (MN) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	CHLORIDE (CL) (MG/L)	SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED ORTHO PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (MG/L)	HARDNESS (CA, MG)	PERCENT SODIUM	RESIDUAL SODIUM CARBORATE (RSR)	SODIUM ABSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (°C)				
1/ BY-86-33-403		136-560	J	9-20-72	--	--	--	39	8	296	--	362	--	130	243	0.6	0.09	--	--	--	--	884	130	83	3.3	11.3	--	7.7	--
2/		136-560	J	9-20-72	8.8	100	--	37	8.1	307	--	373	0	146	238	0.4	0.02	--	--	--	--	928	126	84	3.5	11.9	1605	7.4	--
3/	501	310	J	2-21-36	--	--	--	32	13	272	--	305	--	96	265	--	--	--	--	--	--	830	133	82	2.3	10.2	--	--	--
3/	502	412 480	J	2-21-36 2-22-64	-- 17	-- 230	-- --	22 16	16 9.4	327 285	-- 9.4	460 315	-- 76	88 129	270 283	-- 1.1	-- 0	-- --	-- --	-- --	-- --	939 835	121 89	85 89	4.8 4.8	12.9 15.7	1580	6.5	--
4/	504	930-983	J	1- -57	59	860	--	8.5	.5	430	--	898	--	2	140	--	--	--	--	--	--	1072	73	98	14.3	37.9	--	7.9	--
	505	485	J	2-24-36	--	--	--	22	13	321	--	427	--	95	256	--	--	--	--	--	--	920	109	87	4.8	13.4	--	--	--
	506	800	J	2-24-36	--	--	--	92	136	57	--	440	--	88	270	--	--	--	--	--	--	861	786	13	0	8.8	--	--	--
5/	507	290-620	J	6-05-64	11	420	--	18	5	314	--	600	0	99	224	--	--	--	--	--	--	688	66	91	5.2	16.9	1480	7.6	--
	34-203	90-150	E	3-05-74	--	--	--	--	--	--	--	368	0	--	320	--	--	--	--	--	--	500	--	--	.00	--	1640	7.3	--
	501	74-105	E	11-12-73	32	--	--	92	8.0	59	--	330	0	13	71	.1	.36	--	--	--	--	444	260	33	.16	1.6	756	7.5	--
	602	100 <sup>4</sup>	E	3-04-74	--	--	--	--	--	--	--	404	0	--	320	--	--	--	--	--	--	600	--	--	.00	--	1650	7.2	--
	39		C	3-05-74	--	--	--	--	--	--	--	184	0	--	21	--	--	--	--	--	--	170	--	--	.00	--	427	7.2	--
	604	137-150	E	3-05-74	--	--	--	--	--	--	--	276	0	--	140	--	--	--	--	--	--	280	--	--	.00	--	912	7.5	--
	906	160	U	3-04-74	32	--	--	90	12	72	1.5	254	0	21	120	.4	.2	--	--	--	70	501	270	36	.00	1.9	904	7.5	--
	35-702	550 <sup>4</sup>	E	3-04-74	18	--	--	30	12	180	4.0	400	0	11	140	.4	.0	--	--	--	170	388	120	75	4.07	7.0	1010	7.7	--
1/	901	100-840	E-C	7-12-69	36	--	--	61	4	18	--	255	--	5	31	<.1	<.09	--	--	--	--	300	218	15.2	.00	5.3	475	7.3	24.0
	902	105-559	C-K	7-20-55	38	--	--	70	3.7	22	--	234	0	6.1	29	--	.0	--	--	--	20	290	190	20.1	.04	.70	463	7.9	23.5
	41-202	333	K	1-06-74	28	100	--	99	12	100	2.7	384	0	30	120	.4	.2	--	--	--	100	582	300	42	.36	2.5	1000	7.9	--
	503	300 <sup>4</sup>	K	11-06-73	28	240	--	100	11	84	--	232	0	28	190	.5	.00	--	--	--	--	556	300	38	.00	2.1	1020	7.9	--
	702	145-165	E	3-06-74	--	--	--	--	--	--	--	390	0	--	76	--	--	--	--	--	--	230	--	--	1.08	--	789	7.4	--
	42-701	102-130	C	3-06-74	--	--	--	--	--	--	--	332	0	--	380	--	--	--	--	--	--	680	--	--	.00	--	1740	7.0	--
	802	261-751	C	7-06-60	24	--	--	50	10	119	2.8	358	0	41	65	--	.04	--	--	--	--	488	166	60	2.55	4.0	806	7.1	25.0
	804	397-420	E	3-06-74	--	--	--	--	--	--	--	360	0	--	100	--	--	--	--	--	--	250	--	--	.86	--	941	7.6	--
1/	902	576 <sup>4</sup>	E	7-12-69	33	--	--	71	7	65	--	310	0	23	54	<.4	<.09	--	--	--	--	405	207	41	.96	1.97	650	7.3	24.0
43-102		100-120	C	10-23-73	40	100	--	86	5.4	32	--	283	0	6.8	48	.1	.03	--	--	--	--	357	240	23	.00	.9	595	7.8	--
1/	301	151-896	B-C	7-13-69	31	--	--	51	7	78	--	240	0	9	86	.3	<.09	--	--	--	--	380	156	52	.82	2.7	630	7.5	24.5
2/	203	244-444 244-444	C	4-23-54 3-04-74	19 29	50 10	-- --	50 50	8 6.1	66 36	1.8 1.8	244 202	-- D	17 11	58 40	-- 2	-- .2	-- --	-- 20	-- --	-- --	328 274	158 150	48 34	.85 .31	2.3 1.3	545 454	7.6 7.8	--
1/	301	336-1036	B-C	7-12-69	33	--	--	79	7	47	--	262	0	10	73	.3	<.09	--	--	--	--	378	236	31	.00	1.4	625	7.3	24.0
	502	328-408	C	3-05-74	--	--	--	--	--	--	--	260	0	--	53	--	--	--	--	--	--	190	--	--	.50	--	603	7.7	--
	507	234-240	E	3-04-74	--	--	--	--	--	--	--	228	0	--	39	--	--	--	--	--	--	160	--	--	.46	--	483	7.7	--
1/	803	267-1020	B-U	7-12-69	28	--	--	53	9	91	--	287	0	26	80	.3	<.09	--	--	--	--	171	54	54	1.32	3.0	710	7.5	24.0
	807	101-124	E	3-04-74	--	--	--	--	--	--	--	338	0	--	60	--	--	--	--	--	--	300	--	--	.00	--	739	7.3	--
	902	185-620	C-K	10-24-73	30	--	--	83	12	59	2.2	232	0	19	130	.2	.2	--	--	--	--	446	260	33	.00	1.6	797	7.7	24.0
	903	400-955	B-C	10-24-73	24	--	--	44	7.1	60	2.1	214	0	17	57	.2	.05	--	--	--	--	317	140	48	.73	2.2	549	8.0	24.5
44-401		728	C-B	10-11-73	24	--	--	52	9.0	54	2.5	238	0	20	55	.2	.00	--	--	--	--	336	170	42	.57	1.9	576	8.0	23.5
	405	200-970	B-C	10-24-73	33	--	--	79	9.6	52	1.3	216	0	17	110	.1	.2	--	--	--	--	413	240	32	.00	1.5	734	8.0	23.5
	49-401	230	E	3-06-74	24	--	--	78	6.4	36	2.2	284	0	7.2	46	.2	.1	--	--	--	20	340	220	26	.23	1.1	586	7.7	--

See footnotes at end of table.



TABLE 8.--Water-quality data of samples collected in Colorado, Lovaca, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (ug/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Burkeville confining layer; C, Elbert aquifer; Ca, Dakota sandstone (Taiff); E, Evansville aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OR PRODUCING INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (MG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	MICROBORATE (HCO <sub>3</sub> ) (MG/L)	CARBONATE (CO <sub>3</sub> ) (MG/L)	DIS-SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED ORTHOPHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	PERCENT SODIUM	RESIDUAL SODIUM ADSORPTION RATIO (RSAR)	SODIUM ADSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICROHMOS)	pH (UNITS)	TEMPERATURE (°C)	
1/RY-66-50-201		222-740	E-C	7-10-69	30	--	--	81	16	87	--	332	0	29	406	0.4	<.09	--	--	510	261	42	0.25	2.35	850	7.2	25.5	
1/202		200-691	E-C	7-10-69	20	--	--	84	9	92	--	346	0	32	96	.5	<.09	--	--	503	267	45	.74	2.6	840	7.4	25.5	
1/401		187-880	E-C	7-10-69	26	--	--	81	10	103	--	353	--	12	86	.5	.09	--	--	472	194	54	1.92	3.2	776	7.3	--	
503		204-616	E-C	7-06-60	24	--	--	74	12	96	2.6	341	0	27	101	--	.0	--	--	503	234	47	.91	2.7	874	7.0	24.5	
51-101		88	C	3-06-74	--	--	--	--	--	--	--	358	0	--	27	--	--	--	--	260	--	--	.59	--	826	7.3	--	
206		180 <sup>+</sup>	C	3-06-74	--	--	--	--	--	--	--	292	0	--	96	--	--	--	--	290	--	--	.00	--	807	7.6	--	
501		116	C	3-06-38	--	--	--	40	23	188	--	134	--	117	265	--	--	--	--	700	194	68	.00	5.9	--	--	--	
1/67-31-604		210-380	J	7-10-69	80	--	--	92	7	213	--	356	0	66	282	.7	<.09	--	--	910	259	64	.34	5.76	1450	7.3	24.5	
6/606		180-325	J	10-18-71	46	180	--	91	4	161	--	315	0	54	198	.4	.13	--	--	709	264	59	.29	4.5	1230	7.3	--	
607		302-594	J	4-25-76	--	--	--	70	6	194	--	354	--	59	186	--	--	--	--	690	191	69	1.98	6.1	--	--	--	
607		302-594	J	2-21-64	71	130	--	71	3.8	165	19	345	0	64	160	.1	.27	--	--	724	193	62	1.6	5.2	1220	8.4	25.0	
803		250-300	J	3-05-74	57	--	--	130	6.4	92	6.5	324	0	59	170	.2	.0	--	310	886	360	35	.00	2.1	1150	7.3	--	
32-103		400 <sup>+</sup>	J	3-05-74	--	--	--	--	--	--	--	340	0	--	39	--	--	--	--	260	--	--	.47	--	702	7.4	--	
302		180-210	B	1-21-74	48	410	--	100	8.6	86	--	360	0	25	100	.4	.01	--	--	550	285	40	.30	2.2	1060	7.4	--	
401		66	J	3-28-62	45	20	--	88	4.4	67	2.4	331	0	9.2	38	.6	6.3	--	210	443	238	38	.67	1.9	762	8.8	--	
701		790	--	3-05-74	54	--	--	14	.6	290	9.8	464	0	95	140	.2	.0	--	490	826	38	93	6.85	20.6	1320	6.0	--	
702		142	J	3-05-74	34	--	--	180	9.0	110	6.2	332	0	51	240	.4	.22	--	220	813	486	33	.00	2.2	1490	7.2	--	
901		273-315	J	3-05-74	--	--	--	--	--	--	--	360	0	--	370	--	--	--	--	110	--	--	3.66	--	1870	7.8	--	
902		1000 <sup>+</sup>	--	3-05-74	78	10	--	7.8	.2	280	6.6	524	0	81	72	.4	1.4	--	530	796	20	95	8.18	27	1180	8.3	26.5	
39-201		84-120	J	3-05-74	--	--	--	--	--	--	--	374	0	--	17	--	--	--	--	290	--	--	.33	--	663	7.3	--	
301		1330	--	4-25-36	--	--	--	1	2	272	--	506	--	19	118	--	--	--	--	665	11	98	8.1	36.1	--	--	--	
1/372		572	J	--	60	49	--	60	49	28	--	281	--	65	82	--	--	--	--	422	351	15	.00	.85	--	--	--	
303		308-539	J	2-04-74	44	--	--	88	1.1	160	--	350	0	45	170	.2	.00	--	380	682	220	61	1.26	4.7	1160	7.6	--	
504		96-188	J	2-22-66	20	520	--	90	3.5	32	7.1	300	0	19	37	.2	0	--	--	366	239	22	.14	.90	609	8.2	22.0	
307		110-245	J	7-08-60	28	--	--	88	6.1	58	6.1	300	0	33	64	--	1.17	--	--	446	244	39	.02	1.6	734	7.0	23.5	
6/509		610-935	J	1-31-73	73	380	--	44	2	140	--	362	0	36	61	.7	.7	--	--	535	118	72	3.57	5.6	810	7.4	--	
6/510		754-980	J	1-18-63	25	190	--	7	.1	233	--	571	0	9	136	--	--	--	--	1179	18	--	--	--	1390	8.0	30.0	
514		94-398	J	2-22-64	28	40	--	77	9.1	73	13	331	0	23	77	.2	.04	--	--	671	230	--	--	--	718	8.1	--	
60-801		115-131	B	3-07-74	--	--	--	--	--	--	--	434	0	--	130	--	--	--	--	400	--	--	.00	--	1110	7.2	--	
1/47-603		196-273	B	9-26-57	--	--	--	--	--	--	--	256	--	--	203	--	--	--	--	704	--	--	--	4.0	--	7.6	--	
604		197-470	J	3-20-74	26	--	--	79	18	130	5.1	342	0	34	170	.4	.0	--	160	636	270	51	.19	3.5	1140	7.5	--	
68-101		124-136	J	3-07-74	--	--	--	--	--	--	--	362	0	--	140	--	--	--	--	--	350	--	--	.00	--	1020	7.4	--
301		51	E	3-06-74	--	--	--	620	150	710	--	308	0	540	2200	--	--	--	--	4400	2400	39	.00	6.3	7810	7.0	--	
1/404		201-622	B	9-26-57	--	--	--	--	--	--	--	354	--	--	192	--	--	--	--	755	--	--	--	3.0	--	7.6	--	
501		114-130	E	3-06-74	--	--	--	--	--	--	--	332	0	--	37	--	--	--	--	210	--	--	1.48	--	717	7.7	--	
1/702		335-445	E	4-16-59	--	--	--	6	40	201	--	311	0	50	220	--	--	--	--	828	181	71	--	--	--	--	--	
703		320-420	E	8-16-76	--	--	--	98	23	--	--	368	--	29	164	--	--	--	--	340	--	--	--	--	1130	8.0	--	

See footnotes at end of table.

TABLE 8.--Water-quality data of samples collected in Colorado, Nevada, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (ug/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Burterville confining layer; C, Chicot aquifer; G, Cataboule Sandstone (Tuff); H, Evangeline aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OF PRODUCING INTERVAL (FT)	WATER-BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO <sub>3</sub> ) (MG/L)	CARBONATE (CO <sub>3</sub> ) (MG/L)	DIS-SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (CONSTITUENTS) (MG/L)	HARDNESS (CA, MG)	PERCENT SODIUM	RESIDUAL SODIUM-CARBONATE RATIO (RSC)	SODIUM ADSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICROMHMS)	PH	TEMPERATURE (°C)
KV-67-56-301	601	422-480	B	3-06-74	--	--	--	--	--	--	--	362	0	--	150	--	--	--	--	--	220	--	1.53	--	1120	7.7	--
		87-195	E	3-06-74	--	--	--	--	--	--	--	--	320	0	--	96	--	--	--	--	--	250	--	.28	--	869	7.4
WHARTON COUNTY EX-85-41-602	602	91-154	E	3-06-74	--	--	--	--	--	--	--	316	0	--	83	--	--	--	--	--	260	--	.02	--	784	7.4	--
		157-338	C	8-22-74	29	0	--	94	26	50	3.9	462	0	26	31	0.2	0.0	--	380	488	340	24	0	1.2	932	7.5	--
704	803	234-319	C	8-22-74	--	--	--	71	20	--	--	304	0	18	100	--	--	--	--	250	--	.2	--	836	7.4	--	
		853-874	C-E	8-22-74	19	0	0	32	16	92	2.8	256	0	19	94	.3	.02	--	--	401	150	57	1.2	3.3	730	7.5	--
806	902	208	C	4-23-69	--	--	--	24	13	44	3	65	--	<4	110	.2	<.09	--	--	218	110	65	0	1.8	484	8.0	--
		349-498	C	2-24-34	--	--	--	--	--	--	--	--	--	--	50	--	--	--	--	--	200	--	--	--	--	--	--
913	915	349-498	C	4-11-40	--	--	--	--	--	36	--	230	--	16	42	--	.06	--	--	282	190	--	--	--	--	--	
		251-293	C	4-11-40	--	--	--	--	--	160	--	324	--	20	105	--	.0	--	--	466	84	--	--	--	--	--	
916	917	284-370	C	2-15-34	--	--	--	--	--	--	--	--	--	120	--	<4.5	--	--	--	150	--	--	--	--	--	--	
		284-370	C	4-11-40	--	--	--	--	--	140	--	260	--	14	106	--	.06	--	--	490	150	--	--	--	--	--	
49-102	103	414	C	4-11-40	--	--	--	--	--	210	--	360	--	30	152	1.0	.04	--	--	571	69	--	--	--	--	--	
		378-390	C	-- 41	--	--	--	--	--	--	--	--	--	35	160	--	--	--	--	--	530	--	--	--	--	--	
201	301	75-270	C	8-22-74	--	--	--	83	26	--	--	482	0	21	130	--	--	--	--	310	--	0	--	1180	7.5	--	
		98	C	8-22-74	18	10	30	80	20	98	2.6	463	0	7.1	88	.3	.04	--	--	540	280	43	1.9	2.5	986	7.5	--
302	303	392	C	2-21-34	--	--	--	--	--	--	--	--	--	85	--	<4.5	--	--	--	260	--	--	--	--	--	--	
		392	C	4-10-40	--	--	--	--	--	--	--	--	--	6	80	--	.06	--	--	--	--	--	--	--	--	--	
304	501	207	C	3-07-72	21	--	--	82	24	91	--	428	--	18	77	.4	.09	--	--	538	300	39	1.4	2.2	891	7.4	--
		330-1070	C-E	11-23-66	24	70	--	62	13	44	--	288	0	10	40	--	--	--	--	335	210	31	.6	1.3	591	7.4	25.5
66-31-104	301	246-791	C-E	7-12-60	24	--	--	61	17	42	2.3	292	0	16	49	--	0	--	--	357	230	28	.2	1.2	614	7.3	23.5
		50 <sup>2</sup>	C	4-19-40	--	--	--	--	--	84	--	313	--	12	130	--	<4.5	--	--	694	280	--	--	--	--	--	
303	304	98-702	C-E	8-14-74	31	10	--	50	2.8	18	1.1	163	0	4.9	28	.1	.20	--	10	216	140	22	0	.7	373	7.2	24.0
		125	C	8-21-74	--	--	--	33	1.3	--	--	125	D	4.8	37	--	--	--	--	88	--	0	--	--	355	7.2	24.0
401	507	304	C	4-19-40	--	--	--	--	--	14	--	100	--	1.0	24	--	8.36	--	--	175	120	--	--	--	--	--	
		45	C	4-19-40	--	--	--	--	--	110	--	228	--	20	150	--	2.48	--	--	523	220	--	--	--	--	--	
605	701	320-758	B-C	8-28-74	--	--	--	46	6.0	--	--	183	0	8.7	50	--	--	--	40	--	140	--	0	--	480	7.5	24.0
		110	C	4-19-40	--	--	--	--	--	76	--	360	--	8	87	--	<4.5	--	--	418	230	--	--	--	--	--	
902	903	90-300	C	8-14-74	35	0	--	92	8.6	45	1.6	247	0	13	100	.2	.18	--	50	416	250	26	0	1.2	759	7.2	24.0
		51	C	7-26-55	36	--	--	130	8.9	100	1.0	359	0	42	180	--	.45	--	120	693	370	38	0	2.4	1220	7.2	22.5
337	337	337	C	5-10-47	--	--	--	100	13	81	--	240	--	101	120	--	.90	--	--	537	300	--	0	2.0	--	--	
		337	C	7-26-55	33	--	--	96	7.6	59	1.2	379	0	16	110	--	.23	--	340	465	270	32	0	1.6	830	7.5	22.5
337	904	337	C	6-24-69	37	--	--	140	10	110	--	175	--	32	230	.2	6.8	--	--	750	600	58	0	2.5	1290	7.2	--
		360-397	C	5-04-71	--	--	--	58	6	24	--	185	--	9	50	.2	<.09	--	--	228	170	23	0	.8	432	7.7	--
343-397	905	343-397	C	12-09-66	--	--	--	56	6	25	--	166	--	8	54	.1	<.09	--	--	230	160	24	0	.8	452	7.6	--
		343-397	C	5-04-71	--	--	--	61	6	25	<1.0	165	--	9	57	.2	<.09	--	--	239	180	23	0	.8	453	7.7	--
343-397	906	343-397	C	5-04-71	--	--	--	56	6	25	--	166	--	8	54	.1	<.09	--	--	230	160	24	0	.8	452	7.6	--
		860-890	X	12-29-55	24	260	10	24	6.9	81	3.2	243	0	14	42	.3	.02	0.01	120	314	88	65	2.2	3	532	8.0	--
32-103	405	860-890	X	12-09-66	--	--	--	24	8	90	--	234	--	17	43	.2	<.09	--	--	302	92	67	2.1	4.1	532	7.9	--
		860-890	X	5-04-71	--	--	--	28	7	82	<1.0	245	--	18	42	.3	<.05	--	--	298	96	66	2.1	3.6	517	8.0	--
302	302	60	C	8-21-74	24	10	20	94	28	110	2.4	366	0	32	160	.3	9.8	--	150	640	350	40	0	2.6	1210	7.5	--
		104-110	C	8-21-74	--	--	--	73	6.3	--	--	312	0	7.4	51	--	--	--	--	210	--	0	--	--	652	7.5	--
302	302	200-247	C	8-21-74	30	0	0	80	8.6	55	1.9	314	0	6.7	58	.2	.09	--	--	394	240	32	.4	1.6	687	7.4	--

See footnotes at end of table.

TABLE 8.--Water-quality data of samples collected in Colorado, Lovaca, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (µg/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Burckoville confining layer; C, chert aquifer; Ca, Catahoula Sandstone (Puff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	CWYER	DEPTH OR PROVICING INTERVAL (ft)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO <sub>3</sub> ) (MG/L)	CARBONATE (CO <sub>3</sub> ) (MG/L)	DIS-SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED NITRITE (NO <sub>2</sub> ) (MG/L)	DIS-SOLVED AMMONIUM (NH <sub>4</sub> ) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (MG/L)	DIS-SOLVED ZINC (ZN) (MG/L)	DIS-SOLVED CUPRUM (CU) (MG/L)	DIS-SOLVED MANGANESE (MANG) (MG/L)	PERCENT SODIUM	RESIDUAL SODIUM CARBONATE (RSC)	SODIUM ADSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)		
7A-66-32-502		200-247	C	8-21-74	30	0	0	80	8.6	55	1.9	314	0	6.7	58	0.2	0.09	--	--	--	394	240	33	0.4	1.6	687	7.4	--				
708		88	C	2-17-34	--	--	--	--	--	--	--	--	--	40	--	<4.5	--	--	--	--	160	--	--	--	--	--	--	--	--			
803		210-280	C	8-21-74	30	0	0	58	6.1	33	2.5	252	0	6.2	41	.2	.03	--	--	--	309	190	26	.24	1	543	7.6	23.5				
8/ 37-901		52-131	C	6-27-69	35	--	--	110	24	180	--	473	--	88	220	.4	.09	--	--	--	903	380	51	.9	4.1	1500	7.3	--				
8/ 38-201		408	C	6-24-69	24	--	--	31	23	37	--	221	--	15	40	.3	.09	--	--	--	278	170	32	.2	1.2	486	7.6	--				
8/ 202		65	C	4-20-40	--	--	--	--	--	--	--	--	--	47	34	--	5.20	--	--	--	--	--	--	--	--	--	--	--	--			
8/ 202		65	C	6-24-69	34	--	--	190	28	35	--	684	--	33	42	.3	6.0	--	--	--	707	600	11	0	.6	1140	7.1	--				
8/ 202		236-694	C	8-21-74	--	--	--	56	6.5	--	--	170	0	8.1	50	--	--	--	--	--	--	--	--	--	170	--	.5	--	464	7.4	25.0	
603		231-861	C-E	8-14-74	26	0	--	59	10	40	2.3	210	0	13	61	.2	.25	--	--	--	60	313	190	31	0	1.3	379	7.4	25.0			
605		40	C	4-20-40	--	--	--	--	--	--	--	--	--	28	80	--	1.9	--	--	--	--	--	--	--	--	--	--	--	--			
702		60-116	C	8-14-74	--	--	--	55	8.1	--	--	283	0	29	41	--	--	--	--	--	--	--	--	--	170	--	0	--	642	7.4	23.0	
8/ 801		61-115	C	6-23-60	24	--	--	180	24	49	3.2	528	0	85	110	--	.0	--	--	--	100	735	560	16	--	.9	1270	6.7	21.0			
8/ 801		61-115	C	6-24-69	25	--	--	190	30	33	--	556	--	80	130	.3	.09	--	--	--	782	600	16	0	.9	1260	7.7	--	--			
8/ 39-101		217-479	C	8-21-74	27	0	--	52	4.5	24	2.0	174	0	9.6	33	.2	.32	--	--	--	40	238	150	26	0	.9	410	7.3	25.5			
202		106-481	C	8-21-74	30	0	--	69	9.1	31	2.2	200	0	11	72	.2	.37	--	--	--	60	303	210	24	0	.9	586	7.2	24.0			
204		193-559	C	8-14-74	31	10	--	72	8.8	34	2.0	198	0	11	76	.2	.21	--	--	--	50	332	220	25	0	1.0	596	7.5	24.0			
401		32	C	8-14-74	40	0	20	200	36	310	1.8	424	0	72	620	.3	2.0	--	--	--	1490	630	51	0	5.3	2660	7.3	23.0				
8/ 701		100-212	C	6-24-69	30	--	--	120	17	45	--	394	--	19	94	.3	4.8	--	--	--	523	380	20	0	1.0	892	7.4	23.0				
802		20	C	2-28-34	--	--	--	--	--	--	--	--	--	--	180	--	<4.5	--	--	--	--	--	--	--	--	370	--	--	--	--		
908		170	C	8-21-74	31	10	30	130	23	52	3.2	257	0	18	230	.3	.23	--	--	--	614	420	21	0	1.1	1210	7.2	25.5				
8/ 40-105		182-560	C	8-28-74	32	20	--	73	8.6	37	2.1	218	0	13	74	.2	.23	--	--	--	70	348	220	27	.8	1.1	646	7.3	23.0			
8/ 201		265	C	6-24-69	27	--	--	86	12	48	--	288	--	15	86	.4	.07	--	--	--	--	416	260	28	0	1.2	711	7.4	--			
401		488	C	>75-60	28	--	--	67	12	35	2.1	212	0	12	79	.4	.18	--	--	--	150	340	230	26	0	1.0	613	7.1	--			
502		325	C	6-22-60	23	--	--	74	12	33	1.9	220	0	13	84	--	.1	--	--	--	30	348	230	23	0	.9	630	7.4	22.5			
904		33	C	2-14-34	--	--	--	--	--	--	--	--	--	100	--	<4.5	--	--	--	--	250	--	--	--	--	--	--	--	--			
8/ 701		33	C	4-17-40	--	--	--	--	--	100	--	366	--	14	90	--	.68	--	--	--	473	160	--	--	--	--	--	--	--	--		
801		60	C	8-21-74	--	--	--	76	21	--	--	496	0	35	120	--	--	--	--	--	--	--	--	--	--	280	--	0	--	1210	7.4	25.5
801		242-532	C	5-25-60	28	--	--	74	15	39	2.6	255	0	14	79	.4	.1	--	--	--	90	377	250	25	0	1.0	688	7.2	--			
904		197-212	C	8-22-74	26	10	--	88	14	52	2.8	289	0	13	110	.3	.06	--	--	--	60	448	280	29	0	1.3	626	7.5	--			
44-805		90-155	C	5-27-40	--	--	--	--	--	--	--	--	--	8	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
808		301-1224	E-C	8-12-74	--	--	--	35	5.7	--	--	273	0	7.8	61	--	--	--	--	--	--	--	--	--	--	110	--	0	--	636	7.7	27.0
45-201		257	C	7-21-55	42	--	--	110	10	100	--	189	0	31	260	--	.45	--	--	--	110	633	330	40	0	2.4	1320	7.9	23.0			
207		60-146	C	5-31-40	--	--	--	170	14	95	--	308	--	31	280	--	.27	--	--	--	739	470	30	0	1.9	--	--	--	--	--		
303		79-147	C	8-19-74	--	--	--	80	6.5	--	--	311	0	24	90	--	--	--	--	--	--	--	--	--	230	--	0	--	835	7.4	23.0	
8/ 402		100	C	6-23-69	36	--	--	130	9	78	--	332	--	20	170	.1	.09	--	--	--	609	360	32	0	1.7	1050	7.5	--				
302		100-574	C	8-19-74	--	--	--	150	12	--	--	284	0	34	170	--	--	--	--	--	--	--	--	--	420	--	3.8	--	1410	7.3	24.0	
904		125	C	5-31-40	--	--	--	--	--	--	--	--	--	12	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
506		140-468	C	8-13-74	--	--	--	97	8.7	--	--	244	0	17	120	--	--	--	--	--	--	--	--	--	280	--	1.6	--	816	7.3	24.5	
8/ 601		429	C	6-23-69	33	--	--	130	10	75	--	293	--	24	190	.3	.09	--	--	--	604	370	31	0	1.7	1040	7.2	--				

See footnotes at end of table.



TABLE 8.--Water-quality data of samples collected in Colorado, Lovace, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (ug/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: B, Burckville confining layer; C, Chico aquifer; Ca, Catalueña Sandstone (Tuff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OR PRODUCTION INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (MG/L)	DIS-SOLVED MANGANESE (MN) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	CLORIDE (CL) (MG/L)	CARBONATE (CO <sub>3</sub> ) (MG/L)	SULFATE (SO <sub>4</sub> ) (MG/L)	CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED ORTHO PHOSPHATE (P) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED BORON (B) (MG/L)	DIS-SOLVED SILICIC ACID (SiO <sub>2</sub> ) (MG/L)	HARDNESS (CA, MG) (MG/L)	TOTAL HARDNESS (MG/L)	RESIDUAL SODIUM CHLORIDE (RSC) (MG/L)	SODIUM ADSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICROMHOS) (UMHOS)	PH (UNITS)	TEMPERATURE (°C)
EA-66-32-205		40-175	C	5-30-74	--	--	--	--	--	--	--	212	--	--	130	--	--	--	--	--	240	--	--	--	--	--	--	--
		40-175	C	5-27-40	--	--	--	--	--	--	--	--	23	--	190	--	--	--	--	--	--	--	--	--	--	--	--	
B/ 207		72-231	C	6-18-69	38	--	--	45	4	35	--	150	--	8	53	0.3	0.09	--	--	257	130	37	0	1.3	420	7.1	--	
208		316-1198	E-C	8-12-74	15	0	--	36	7.4	120	2.7	258	0	41	87	.2	1.15	--	320	436	120	68	1.6	4.8	772	7.5	27.0	
		65-184	C	5-30-30	--	--	--	--	--	--	--	148	--	--	25	--	--	--	--	165	120	--	--	--	--	--	--	
		65-184	C	8-02-34	--	200	--	38	4.3	21	--	140	--	6.6	26	--	.02	--	--	160	110	29	.4	.9	--	--	--	
		65-184	C	5-25-40	--	--	--	--	--	26	--	158	--	6	34	--	--	--	--	194	126	--	--	--	--	--	22.5	
B/ 304		201-650	U	6-18-69	31	--	--	52	5	27	--	201	--	10	26	.3	.09	--	--	250	150	28	.3	1.0	404	7.5	--	
301		165	U	5-27-40	--	--	--	--	--	--	--	--	18	150	--	--	--	--	--	--	--	--	--	--	--	--	22.5	
302		71-181	U	8-19-74	--	--	--	49	7.7	--	--	211	0	15	80	--	--	--	--	150	--	0	--	--	632	7.6	25.0	
		40-275	U	4-24-40	--	--	--	--	--	37	--	238	0	28	79	--	--	--	--	364	250	--	--	--	--	--	--	
		40-275	U	8-12-74	--	--	--	79	3.8	--	--	174	0	18	58	--	--	--	--	--	210	--	0	--	648	7.5	23.5	
		275	C	5-25-40	--	--	--	--	--	--	--	--	12	88	--	--	--	--	--	--	--	--	--	--	--	--	--	
302		95-230	U	8-19-74	28	20	--	85	5.0	47	1.4	275	0	13	61	.2	1.2	--	50	372	230	28	0	1.2	656	7.4	23.5	
53-102		58-202	C	6-07-40	--	--	--	--	--	--	--	--	13	110	--	--	--	--	--	--	--	--	--	--	--	--	--	
		200	C	5-31-34	--	--	--	--	--	--	--	326	--	--	190	--	--	--	--	--	--	380	--	--	--	--	--	
		200	C	5-28-40	--	--	--	--	--	88	--	358	--	16	180	--	--	--	--	--	601	360	--	--	--	--	--	
		108	C	5-31-34	--	--	--	--	--	--	--	188	--	--	47	--	--	--	--	--	180	--	--	--	--	--	--	
		201	C	5-27-40	--	--	--	--	--	--	--	--	10	100	--	--	--	--	--	--	--	--	--	--	--	--	--	
		216	C	5-31-34	--	--	--	--	--	--	--	308	--	--	120	--	--	--	--	--	310	--	--	--	--	--	--	
		216	C	7-22-40	--	--	--	--	--	64	--	310	--	23	120	.1	.23	--	--	483	310	--	--	--	--	--	--	
		207	C	6-01-34	--	--	--	--	--	--	--	304	--	--	140	--	--	--	--	--	310	--	--	--	--	--	--	
		336	C	5-25-40	--	--	--	--	--	59	--	304	--	17	160	--	--	--	--	504	340	--	--	--	--	--	--	
209		71-240	C	8-27-74	19	0	--	120	8.8	80	1.8	314	0	15	150	.1	1.14	--	100	549	340	28	0	1.4	1000	7.2	25.0	
B/ 302		90-617	C	6-23-69	36	--	--	120	14	88	--	327	--	27	170	.3	.09	--	--	610	350	36	0	2.0	1050	7.3	--	
B/ 307		124-282	C	6-18-69	33	--	--	110	15	88	--	336	--	28	170	.4	.09	--	--	612	350	36	0	2.1	1050	7.4	--	
404		260	C	4-23-40	--	--	--	--	--	51	--	234	--	10	84	--	--	--	--	343	210	--	--	--	--	--	--	
B/ 503		94-338	C	6-25-69	34	--	--	190	44	233	--	409	--	211	450	.6	.09	--	--	1370	660	43	0	3.9	2220	7.3	--	
505		112-376	C	8-19-74	--	--	--	120	19	--	--	378	0	63	200	--	--	--	--	380	--	1.4	--	1360	7.4	23.5		
U/ 506		131-293	C	6-27-66	30	--	--	120	9	67	--	294	--	21	50	.2	<.09	--	--	543	330	30	0	1.6	960	7.4	--	
B/ 603		65-143	C	6-25-69	33	--	--	140	23	140	--	389	--	37	270	.4	.56	--	--	828	430	42	0	3.0	1600	7.3	--	
701		250-790	C-E	8-19-74	--	--	--	80	11	--	--	233	0	11	81	--	--	--	--	230	--	.8	--	660	7.4	25.0		
B/ 804		199-409	C	6-25-69	34	--	--	90	13	45	--	284	--	14	91	.3	.09	--	--	430	280	26	0	1.1	772	7.3	--	
U/ 807		115-305	C	6-27-66	32	--	--	140	22	96	--	379	--	34	220	.4	<.09	--	--	734	440	32	0	2.0	1240	7.2	23.5	
U/ 808		110-394	C	6-29-66	22	--	--	120	26	110	--	311	--	68	260	.3	<.09	--	--	738	420	36	0	2.3	1260	7.9	--	
U/ 809		102-237	C	6-28-66	36	--	--	110	14	76	--	331	--	21	150	.2	<.09	--	--	576	340	33	0	1.8	983	7.2	24.5	
B/ 903		100-304	U	6-25-69	30	--	--	220	44	270	--	481	--	69	610	.7	.09	--	--	1480	730	45	0	4.4	2520	7.1	--	
B/ 54-108		118-360	U	5-10-70	21	--	--	70	39	110	--	353	--	53	180	.2	.09	--	--	624	330	42	0	2.5	1060	7.8	--	
205		115-320	U	8-14-74	--	--	--	80	11	--	--	121	0	12	63	--	--	--	--	250	--	0	--	734	7.4	24.0		
206		N/A	C	6-03-40	--	--	--	--	--	--	--	--	17	50	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/ 212		160-226	C	5-03-67	--	--	--	--	--	--	--	--	--	--	150	--	--	--	--	--	900	--	--	--	--	--	--	
308		100-233	U	8-20-74	--	--	--	160	11	--	--	152	0	4.9	470	--	--	--	--	440	--	6.4	--	1780	7.4	23.0		

See footnotes at end of table.

TABLE 8.--Water-quality data of samples collected in Colorado, Lovasa, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/l) or micrograms per liter (ug/l), except sodium absorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (%). Aquifer units: B, Burkeville confining layer; C, Chicou aquifer; G, Gatahoule Sandstone (Tuff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OR PRODUCTION INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESSE (MNG) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BILIAR-BONATE (BIO <sub>3</sub> ) (MG/L)	CAR-BONATE (CH <sub>3</sub> ) (MG/L)	DIS-SOLVED NH <sub>4</sub> NITR (NH <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLOU-RIDE (F) (MG/L)	DUR-SOLUBLE NH <sub>4</sub> NITRATE (N) (MG/L)	DIS-SOLVED ORTHO-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORO-N (B) (MG/L)	DIS-SOLVED (SUM OF CONCI-TURBIS) (MG/L)	HARD NESS (CAL, MG) (MG/L)	PER-CENT SODIUM	RE-SI-MI-LAR CAR-BONATE (RBC)	SUM-AM AN-SORP-TION RATIO (SAR)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	pH (UNITS)	TEM-PERATURE (°C)
Z/2A-66-54-311		144-219	C	8-22-67	--	--	--	140	A	--	38	--	427	--	--	35	--	--	--	448	360	--	--	--	--	7.7	--
		111-329	C	8-13-74	--	--	--	90	13	--	--	373	0	16	96	--	--	--	--	280	--	0.3	--	846	7.5	24.0	
		409	N/A	7-25-60	--	--	--	--	--	66	--	318	--	17	110	0.2	0.34	--	--	487	290	--	--	--	--	--	--
		503	C	8-20-74	--	--	--	80	12	--	--	364	0	13	70	--	--	--	--	260	--	0	--	813	7.4	24.0	
		507	C	8-13-74	31	0	--	80	11	48	2.8	374	0	11	50	.2	.24	--	80	604	250	29	.3	1.3	713	7.6	24.0
		508	C	8-20-74	27	0	--	80	14	62	2.5	380	0	7.3	48	.6	.42	--	120	623	250	35	1.3	1.7	753	7.4	29.0
		603	E	4-06-67	--	90	--	7.6	2.6	170	--	283	--	3.3	110	.6	0	--	--	478	30	92	4.0	1.3	--	--	--
		604	E	8-03-34	--	70	--	76	5.5	130	--	367	--	10	76	--	.02	--	--	365	60	82	3.2	7.1	--	--	--
			E	4-13-40	--	--	--	--	--	170	--	266	--	7	74	--	--	--	--	351	52	--	--	--	--	--	--
			E	6-23-69	17	--	--	10	5	120	--	265	--	9	79	.6	.09	--	--	379	60	83	3.2	7.3	658	8.0	--
		609	E	4-13-40	--	--	--	--	--	160	--	270	--	7	81	--	0	--	--	364	50	--	--	--	--	--	--
		610	C	3-22-34	--	--	--	--	--	--	--	--	--	--	70	--	--	--	--	260	--	--	--	--	--	--	--
		611	C	6-03-34	--	--	--	--	--	--	--	340	--	--	43	--	--	--	--	--	210	--	--	--	--	--	--
			C	6-04-40	--	--	--	--	--	--	--	--	--	5	55	--	--	--	--	--	--	--	--	--	--	--	--
		613	C	8-20-74	20	0	--	100	14	62	3.1	397	0	13	78	.2	2.6	--	100	498	310	50	.4	1.5	895	7.4	23.0
Z/		671	E-C	4-28-70	18	<50	--	30	12	82	--	272	0	18	50	--	--	--	--	348	130	57	1.8	--	598	7.8	--
B/		701	C	6-25-69	26	--	--	90	14	130	--	390	--	43	140	.6	.09	--	--	627	280	50	.8	3.3	1060	7.3	--
		809	C	6-04-40	--	--	--	--	--	--	--	--	--	8	76	--	--	--	--	--	--	--	--	--	--	--	--
		817	C	8-13-74	--	--	--	70	14	--	--	313	0	14	59	--	--	--	--	240	--	0	--	708	7.6	26.0	
		903	C	8-27-74	--	--	--	90	13	--	--	360	0	14	85	--	--	--	90	--	280	--	0	--	864	7.4	21.5
B/		33-101	C	4-13-64	26	--	--	90	11	63	--	397	--	8	58	.3	.179	--	--	456	280	33	.9	1.6	785	7.7	--
		102	C	5-38	25	--	--	80	13	66	--	369	--	9	66	--	--	--	--	442	260	36	.9	1.8	--	--	--
			C	7-12-63	24	--	--	80	16	75	--	373	--	10	79	.6	<.02	--	--	472	280	37	.6	2.0	815	7.5	--
			C	9-06-67	24	--	--	90	15	75	--	384	--	12	100	.3	.18	--	--	500	300	35	.4	1.9	892	7.4	--
		103	C	8-30-59	23	20	--	70	8.6	31	2.7	237	0	12	50	--	.27	--	90	313	210	24	0	.9	547	7.1	23.0
			C	7-12-63	26	--	--	70	11	34	--	243	--	12	50	.3	<.09	--	--	318	210	26	0	1.0	553	7.4	--
		105	C	7-12-63	25	--	--	80	11	61	--	357	--	8	56	.2	<.09	--	--	422	260	34	.7	1.6	720	7.3	--
Z/		108	C	2-09-61	--	--	--	80	A	--	150	--	110	--	48	290	--	--	--	704	210	61	--	--	--	8.2	--
		109	C	4-12-40	--	--	--	--	--	--	--	--	--	9	62	--	--	--	--	--	--	--	--	--	--	--	--
		112	C	9-19-58	--	--	--	--	--	--	--	--	--	--	30	--	--	--	--	--	--	--	--	--	--	--	--
			C	7-10-63	20	--	--	90	19	80	--	387	--	7	100	.2	<.02	--	--	306	300	37	.4	2.0	892	7.6	--
		113	C	8-20-74	27	0	--	160	13	81	3.4	396	0	7.2	230	.1	.28	--	110	669	400	30	.2	1.8	1270	7.4	27.0
Z/		119	C	7-21-66	--	--	--	270	A	--	320	--	61	--	--	--	--	--	--	2430	680	50	--	--	--	6.4	--
Z/		120	C	6-19-61	--	--	--	77	A	--	120	--	436	--	--	74	--	--	--	586	190	59	--	--	--	7.6	--
		301	C	9-16-74	--	--	--	68	23	--	--	380	0	15	63	--	--	--	--	260	--	0	--	--	803	7.8	--
		302	C	8-22-74	28	0	--	71	12	28	3.1	282	0	12	33	.2	.24	--	60	327	230	21	.9	.8	573	7.4	--
		501	C	4-11-73	--	--	--	100	25	120	--	412	--	39	160	.3	<.09	--	--	642	260	41	0	2.6	1060	7.3	--
		503	C	8-13-74	--	--	--	69	14	--	--	334	0	15	71	--	--	--	--	230	--	0	--	--	770	7.5	23.5
		505	C	6-14-40	--	--	--	--	--	--	--	--	--	25	120	--	--	--	--	--	--	--	--	--	--	--	--
		601	C	9-23-74	26	0	0	78	22	130	2.7	478	0	17	100	.6	.08	--	--	631	280	50	2.1	3.4	1110	7.7	--
		705	C	6-26-69	25	--	--	97	13	87	--	377	--	11	190	.6	.68	--	--	536	300	39	.3	2.2	924	7.5	--

See footnotes at end of table.

TABLE 8.--Water quality of samples collected in Colorado, Larara, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/L) or micrograms per liter (ug/L), except sodium adsorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: S, Durkoveille confining layer; C, Chisot aquifer, Ca, Oshawa sandstone (Zuff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OR PRODUING INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MNG) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	RESIDUAL CHLORIDE (CL) (MG/L)	CALCIUM CARBONATE (CO <sub>3</sub> ) (MG/L)	SULFATE (SO <sub>4</sub> ) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	DIS-SOLVED PHOSPHATE (P) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (NO <sub>2</sub> ) (MG/L)	DIS-SOLVED AMMONIA (NH <sub>3</sub> ) (MG/L)	DIS-SOLVED BORON (B) (MG/L)	RESIDUAL CHLORIDE (CA, MG)	PER-CENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (°C)	
ZA-66-56-101		396-1001	H-E	8-22-74	29	0	--	60	15	43	2.9	280	0	16	46	0.3	0.04	--	--	80	350	210	30	0.4	1.3	613	7.5	--
103		107	C	9-16-74	--	--	--	65	17	--	--	389	0	18	77	--	--	--	--	--	--	230	--	0	--	864	7.6	--
301		112-618	C	8-22-74	30	10	--	69	15	37	3.0	291	0	15	46	.3	.01	--	--	70	358	230	25	.9	1.0	625	7.5	--
E/ 302		283-480	C	6-24-69	27	--	--	71	14	32	--	293	--	16	36	.3	.09	--	--	--	340	230	23	.1	.9	564	7.6	--
304		110-368	C	8-22-74	--	--	--	67	19	--	--	302	0	16	58	--	--	--	--	--	--	250	--	0	--	687	7.5	--
E/ 701		96-160	U	6-23-69	27	--	--	180	43	221	--	425	--	33	530	.5	.09	--	--	--	1240	630	43	0	3.8	2170	7.2	--
702		157	C	6-14-40	--	--	--	--	--	130	--	452	--	37	166	--	--	--	--	--	694	370	--	--	--	--	--	--
L/ 801		247-882	U	1-07-65	29	--	--	67	17	52	--	296	--	19	66	.4	4.08	--	--	--	398	240	32	.1	1.5	676	7.5	--
61-207		310	U	6-12-40	--	--	--	--	--	--	--	--	--	18	190	--	--	--	--	--	--	--	--	--	--	--	--	--
212		253-373	C	8-20-74	--	--	--	120	22	--	--	331	0	33	210	--	--	--	--	--	--	300	--	2.4	--	1240	7.4	24.5
L/ 301		560-678	U	4-03-52	14	50	--	34	19	76	--	288	5	21	42	--	--	--	--	--	352	160	50	1.6	2.6	--	7.8	--
305		134-599	U	7-24-55	18	--	--	100	20	61	2.2	291	0	24	160	--	.22	--	--	60	530	340	28	0	1.4	1040	7.5	24.0
E/ 134-599		134-599	U	6-25-69	35	--	--	120	23	64	--	303	--	27	170	.3	.09	--	--	--	590	290	26	0	1.4	1014	7.4	--
E/ 309		640	U	11-29-71	--	60	0	47	27	57	--	275	6	19	70	1.2	.12	--	--	--	361	230	35	.1	1.6	630	8.0	--
E/ 601		122-402	C	6-26-69	24	--	--	96	16	73	--	373	--	19	100	.4	.09	--	--	--	514	300	34	.7	1.8	861	7.5	--
602		286	C	6-01-34	--	--	--	--	--	--	--	356	--	--	81	--	--	--	--	--	250	--	--	--	--	--	--	--
286		286	C	6-12-60	--	--	--	--	--	--	--	--	--	11	81	--	--	--	--	--	--	--	--	--	--	--	--	--
E/ 62-104		152-371	C	6-26-69	31	--	--	85	16	47	--	350	--	13	56	.4	.09	--	--	--	420	280	26	.2	1.2	705	7.4	--
304		83-371	C	6-13-40	--	--	--	--	--	31	--	350	--	9	60	--	--	--	--	--	400	270	--	--	--	--	--	--
307		83-371	C	5-30-34	--	--	--	--	--	--	--	344	--	--	78	--	--	--	--	--	240	--	--	--	--	--	--	--
E/ 83-371		83-371	C	6-19-69	37	--	--	100	17	51	--	384	--	8	79	.4	.34	--	--	--	471	320	26	0	1.2	805	7.4	--
310		160-578	C	8-27-74	--	--	--	76	15	--	--	313	0	14	69	--	--	--	--	--	350	--	0	--	--	734	7.5	23.0
312		76-386	U	6-13-40	--	--	--	--	--	--	--	--	--	13	60	--	--	--	--	--	386	--	--	--	--	--	--	--
E/ 415		158-458	U	6-26-69	33	--	--	94	21	54	--	353	--	15	89	.4	.09	--	--	--	480	320	27	0	1.3	814	7.3	--
508		183-283	C	8-20-74	--	--	--	85	20	--	--	396	0	15	70	--	--	--	--	--	290	--	0	--	--	854	7.5	24.0
602		33-139	C	6-13-40	--	--	--	--	--	--	--	--	--	13	57	--	--	--	--	--	290	--	0	--	--	--	--	--
33-139		33-139	C	6-13-74	--	--	--	86	18	--	--	384	0	15	69	--	--	--	--	--	290	--	0	--	--	840	7.5	23.5
606		74-248	C	6-13-40	--	--	--	--	--	72	--	370	--	13	84	--	--	--	--	--	461	280	--	--	--	--	--	--
610		250-1080	C-E	8-22-74	31	10	--	61	18	58	3.1	304	0	17	67	.3	.13	--	--	10	405	230	35	.5	1.7	718	7.5	--
708		81-380	C	6-12-40	--	--	--	--	--	--	--	--	--	23	110	--	--	--	--	--	--	--	--	--	--	--	--	--
711		248-792	C	8-20-74	34	0	--	75	24	84	3.5	404	0	22	96	.4	.00	--	--	110	537	290	39	.9	2.2	958	7.5	25.0
714		798-1011	C-E	8-27-74	25	10	--	40	13	93	3.2	302	0	18	68	.4	.13	--	--	150	409	150	56	1.8	3.3	723	7.6	28.0
804		165	C	6-13-40	--	--	--	--	--	--	--	--	--	12	85	--	--	--	--	--	--	--	--	--	--	--	--	--
E/ 805		138-394	C	6-26-69	33	--	--	129	24	71	--	357	--	19	188	.4	.09	--	--	--	640	420	27	0	1.5	1118	7.2	--
904		162-573	C	7-18-53	28	--	--	85	19	52	--	314	0	17	95	--	.04	--	--	110	450	290	28	0	1.3	807	7.7	26.0
E/ 162-573		162-573	C	6-26-69	26	--	--	91	19	49	--	322	--	17	96	.3	.09	--	--	--	456	300	26	0	1.2	791	7.3	--
907		29-410	C	6-13-40	--	--	--	95	23	60	--	352	--	18	110	--	.0	--	--	--	479	330	28	0	1.4	--	--	--
908		300-631	C	8-20-74	--	--	--	91	20	--	--	340	0	16	96	--	--	--	--	--	310	--	.6	--	--	868	7.4	24.5
63-103		35-65	C	6-04-40	--	--	--	--	--	--	--	--	--	17	133	--	--	--	--	--	--	--	--	--	--	--	--	--
E/ 105		92-342	C	6-27-69	24	--	--	110	23	99	--	397	--	19	172	.5	.09	--	--	--	642	370	37	0	2.2	1119	7.3	--

See footnotes at end of table.

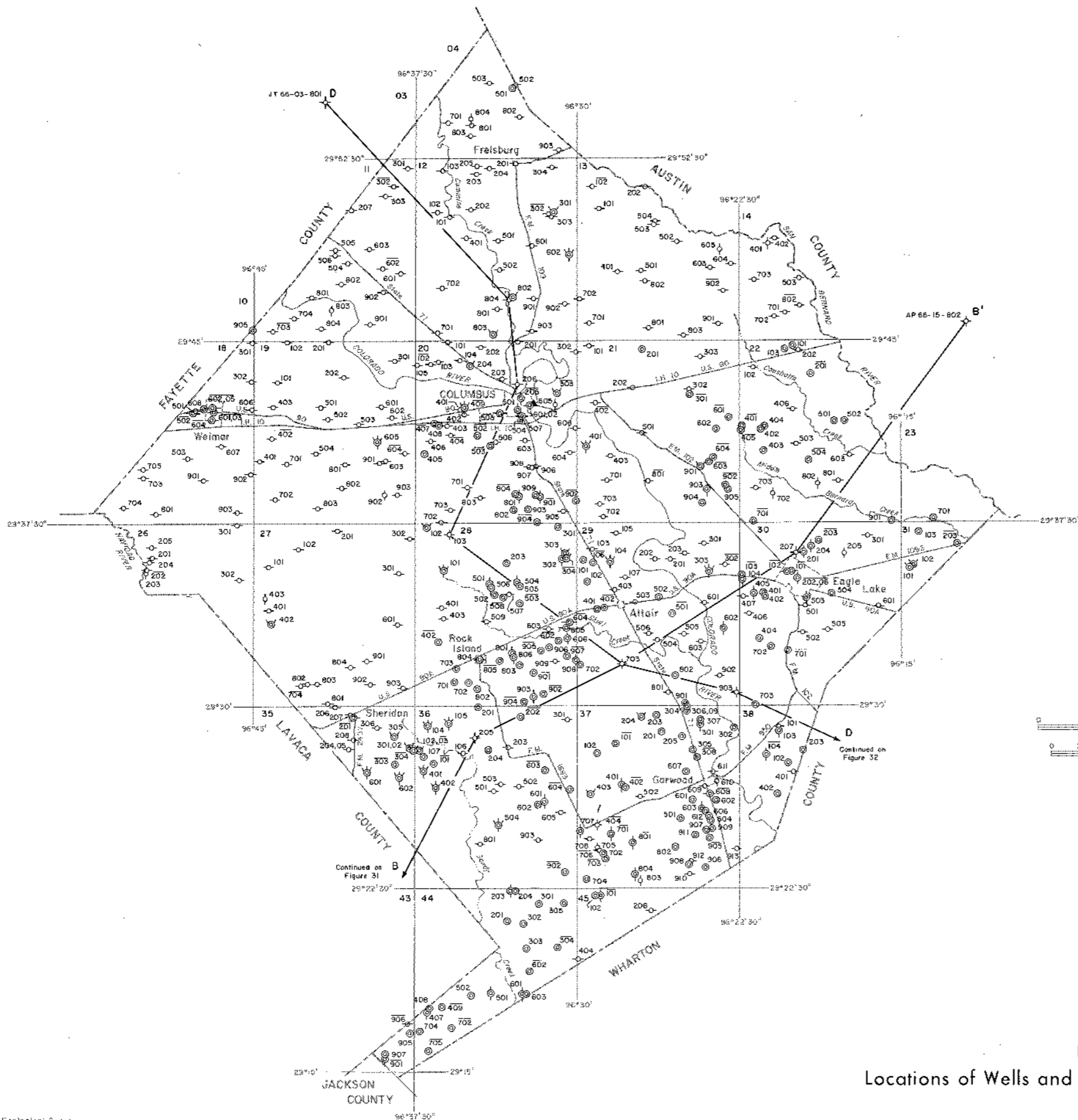
TABLE 8.--Water quality of samples collected in Dolorado, Levese, and Wharton Counties--Continued

Analyses are given in milligrams per liter (mg/l) or micrograms per liter (µg/l), except sodium absorption ratio, residual sodium chloride, specific conductance, pH and temperature. When no potassium (K) is reported, sodium and potassium are calculated and reported as sodium (Na). Aquifer units: E, Eocene confining layer; C, Chico aquifer; H, Gatchula Sandstone (Zuff); E, Evangeline aquifer; and J, Jasper aquifer.

WELL	OWNER	DEPTH OR PRODUCING INTERVAL (FT)	WATER BEARING UNIT	DATE	DIS-SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	DIS-SOLVED IRON (FE) (MG/L)	DIS-SOLVED MANGANESE (MN) (MG/L)	DIS-SOLVED CALCIUM (CAL) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	CHLORIDE (CL) (MG/L)	SULFATE (SO <sub>4</sub> ) (MG/L)	CARBONATE (CO <sub>3</sub> ) (MG/L)	CARBONATE (CO <sub>3</sub> ) (MG/L)	DIS-SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO <sub>3</sub> ) (MG/L)	DIS-SOLVED AMMONIUM (NH <sub>4</sub> ) (MG/L)	DIS-SOLVED BORON (B) (MG/L)	DIS-SOLVED SOLIDS (SUM OF DISSOLVED SOLIDS) (MG/L)	HARDNESS (CAL. MG) (MG/L)	PERCENT SODIUM (KSC)	RESIDUAL SODIUM CHLORIDE RATIO (SAR)	SODIUM AD RATIO (SAR)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (µM/S)	TEMPERATURE (°C)
2A-66-63-106		60-407	C	6-04-40	--	--	--	106	27	118	--	418	--	70	190	--	.23	--	--	667	380	41	0	2.6	--	--	--	
B/	201	116-594	C	7-14-55	34	--	--	79	17	48	3.0	310	0	16	73	--	.11	--	80	422	270	28	0	1.3	741	7.5	22.5	
	201	116-594	C	8-28-69	33	--	--	81	18	40	--	304	--	14	72	0.3	.09	--	--	408	280	24	0	1.0	699	7.4	--	
	302	48-126	C	6-05-40	--	--	--	--	--	--	--	--	--	7	62	--	--	--	--	--	--	--	--	--	--	--	--	
	305	165	C	8-09-40	--	--	--	--	--	--	--	--	--	27	81	--	--	--	--	--	--	--	--	--	--	--	--	
B/	503	127-406	C	6-28-69	26	--	--	85	32	94	--	398	--	19	145	.7	.09	--	--	597	340	37	0	2.2	1027	7.4	--	
B/	504	167-687	C	6-28-69	24	--	--	94	11	64	--	366	--	12	75	.4	.09	--	--	459	280	33	.4	1.6	786	7.3	--	
	506	151-643	C	8-20-74	--	--	--	78	21	--	--	304	0	17	91	--	--	--	--	--	280	--	.64	--	800	7.5	24.5	
	603	160	C	6-05-40	--	--	--	--	--	--	--	--	20	94	--	--	--	--	--	--	--	--	--	--	--	--	--	
	604	40-193	C	6-05-40	--	--	--	93	16	65	--	368	--	13	82	--	.0	--	--	448	290	33	.2	1.6	--	--	--	
B/	605	65-207	C	6-26-69	26	--	--	96	16	76	--	393	--	16	97	.3	.09	--	--	520	300	35	.3	1.9	893	7.5	--	
	64-102	314	C	8-20-74	28	0	--	93	22	130	3.3	364	0	41	190	.3	.00	--	140	686	320	46	0	3.1	1290	7.5	24.0	
	402	188-883	C	8-20-74	30	U	--	71	21	56	3.1	290	0	20	97	.3	.00	--	80	441	260	31	0	1.5	802	7.5	25.5	
B/	RO-06-202	177-620	C	7-13-64	28	--	--	84	23	49	2.5	303	--	17	104	.3	.09	--	--	457	300	26	0	1.2	--	--	--	
	305	181-704	C	8-13-74	--	--	--	79	20	--	--	308	0	18	94	--	--	--	--	--	280	--	.94	--	819	7.5	25.5	

1/ Analyzed by Texas State Department of Health.  
 2/ Analyzed by Edna Wood Laboratories.  
 3/ Analyzed by Microbiology Services Laboratories.  
 4/ Analyzed by Curtis Laboratories.  
 5/ Analysis of brine from oil well.  
 6/ Depth of well when sample taken.  
 7/ Analyzed by Wharton Junior College.  
 8/ Analyzed by Texas Department of Water Resources.  
 9/ Analyzed by unknown commercial laboratory.  
 A Sample is Ca + Mg.





- EXPLANATION**
- ⊙ PUBLIC-SUPPLY WELL
  - ⊙ INDUSTRIAL WELL
  - ⊙ IRRIGATION WELL
  - ⊙ STOCK OR DOMESTIC WELL
  - ⊙ OIL OR GAS WELL
  - ⊙ UNUSED OR DESTROYED WELL
  - ⊙ OBSERVATION WELL OR TEST HOLE
  - ▲ STREAM-GAGING STATION
  - 203 LINE ABOVE LAST THREE DIGITS OF WELL NUMBER--Indicates chemical analysis shown in Table 8
  - B—B' LINE ALONG WHICH THE CORRELATIONS OF GEOHYDROLOGIC UNITS ARE SHOWN ON FIGURES 6 AND 8

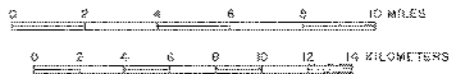
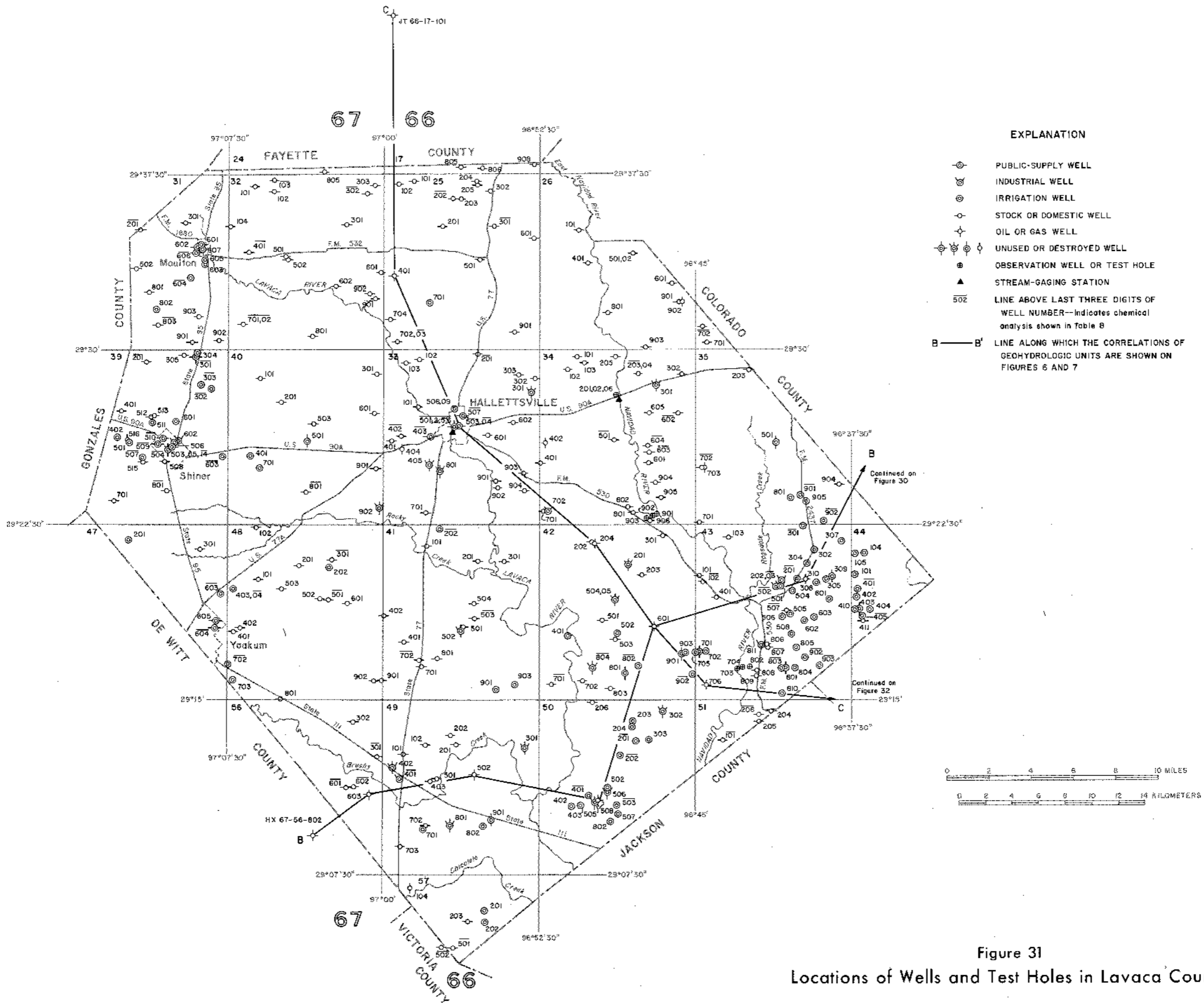


Figure 30  
Locations of Wells and Test Holes in Colorado County

Base from U. S. Geological Survey  
topographic quadrangles







- EXPLANATION**
- ⊙ PUBLIC-SUPPLY WELL
  - ⊙ INDUSTRIAL WELL
  - ⊙ IRRIGATION WELL
  - ⊙ STOCK OR DOMESTIC WELL
  - ⊙ OIL OR GAS WELL
  - ⊙ UNUSED OR DESTROYED WELL
  - ▲ STREAM-GAGING STATION
  - 504 LINE ABOVE LAST THREE DIGITS OF WELL NUMBER--Indicates chemical analysis shown in Table B
  - A—A' LINE ALONG WHICH THE CORRELATIONS OF GEOHYDROLOGIC UNITS ARE SHOWN ON FIGURES 5, 7, AND B

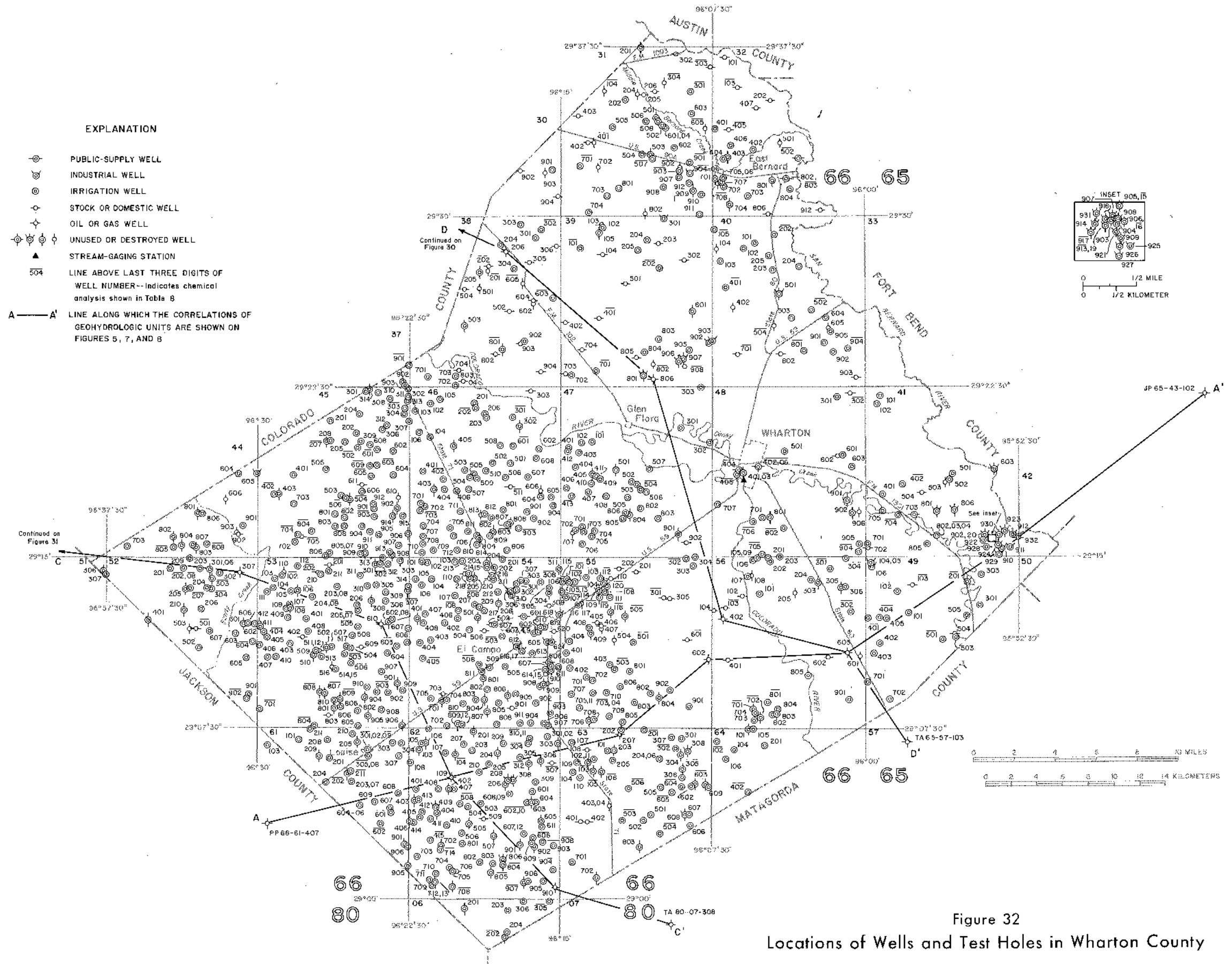


Figure 32  
Locations of Wells and Test Holes in Wharton County

Base from U.S. Geological Survey  
topographic quadrangles





