TEXAS
WATER
DEVELOPMENT
BOARD

Report 172

GROUND-WATER RESOURCES OF VAL VERDE COUNTY, TEXAS

June 1973

Reprinted April 1987

TEXAS WATER DEVELOPMENT BOARD

REPORT 172

GROUND-WATER RESOURCES OF VAL VERDE COUNTY, TEXAS

By

R. D. Reeves and T. A. Small
United States Geological Survey

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GROUND-WATER RESOURCES OF VAL VERDE COUNTY, TEXAS

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United States Geological Survey

ABSTRACT

The principal water-bearing unit in Val Verde County is the Edwards and associated limestones. The Glen Rose Limestone, Boquillas Flags, and alluvium locally yield water to a few wells. Nearly all of the water used in the county is obtained from ground-water sources; however, the amount used is only a small fraction of the amount available for use.

A total of about 1,850 acre-feet or 1.7 mgd (million gallons per day) of water was pumped from wells in 1969. About 1,200 acre-feet (1.1 mgd) was used for rural-domestic supply and livestock, about 600 acre-feet (0.5 mgd) was used for irrigation, and 50 acre-feet (0.04 mgd) was used for municipal supply. A small but undetermined amount of water was pumped for industrial use. The city of Del Rio uses water from San Felipe Springs for its municipal supply; in 1969 the city used 6,780 acre-feet (6.0 mgd).

Additional large supplies of ground water are available for development. An average of about 500,000 acre-feet per year is discharged from the Edwards and associated limestones through springs and seeps. The areas most favorable for the development of large-capacity wells are near the major streams, in areas of faults and fractures, and in the southern part of the county where a greater thickness of the Edwards is saturated.

Amistad Dam, which impounds water from the Rio Grande and Devils River northwest of Del Rio, was completed in 1968 as part of a multipurpose project by the United States and Mexico. After 1 year of impoundment, water levels in some wells tapping the Edwards and associated limestones near the lake rose more than 100 feet; water levels in wells farther removed from the lake rose progressively less.

The chemical quality of the ground water is generally suitable for public supply, industrial use, and irrigation; however, in the extreme southeastern part of the county, water from the Edwards and associated limestones contains high concentrations of magnesium and calcium sulfate and is too highly mineralized for most uses.

GROUND-WATER RESOURCES OF VAL VERDE COUNTY, TEXAS

INTRODUCTION

Purpose and Scope of the Investigation

The purpose of this investigation was to determine the occurrence, availability, dependability, and quality of ground water in Val Verde County.

The study, which was a cooperative project of the U.S. Geological Survey and the Texas Water Development Board, consisted of an inventory of all municipal, industrial, and irrigation wells and a large number of domestic-supply wells, livestock wells, observation wells (of the International Boundary and Water Commission), springs, and oil tests. Information was compiled on water use and pumpage and measurements of the depth to water in wells were made during the inventory. The surface geology was mapped so that the approximate recharge area of the Edwards and associated limestones could be delineated.

The well-data section of this report contains records of 526 wells and springs (Table 4), drillers' logs of 24 wells (Table 5), records of periodic water-level measurements in 55 wells (Table 6), and chemical analyses of 224 wells and springs (Table 7).

Location and Economic Development of the Area

Val Verde County is in southwest Texas on the southwestern edge of the Edwards Plateau (Figure 1). It covers 3,242 square miles and is the eighth largest county in areal extent in Texas. Del Rio, the county seat and principal commercial center, is 153 miles west of San Antonio and 426 miles east-southeast of El Paso.

In 1970, the population of Val Verde County was 26,984, of which 20,928 lived in Del Rio. The communities of Comstock, Langtry, Pumpville, Pandale, Juno, and Loma Alta have a combined population of approximately 1,000; the population of the county is static or very slowly increasing.

The production of wool and mohair is the predominant industry in the county. Hunting and fishing facilities constitute an important source of income in the county. Crop farming is confined to the stream valleys and is primarily for feed and grain, although some crops are grown in the area around Del Rio. Del Rio is an important center for farm products and ranch supplies as well as a railroad, military, and tourist center.

Previous Investigations

Prior to this study, very little detailed information was available concerning the ground-water resources of Val Verde County. A report by Frazier (1940) contained records of wells and springs, drillers' logs, chemical analyses of water, and a map showing the well and spring locations; the well numbers used by Frazier and the corresponding numbers in this report are shown in Table 1.

Local investigations of ground-water conditions near Del Rio were made by Bennett (1942) and Bennett and Livingston (1942). Records of water levels in observation wells in Kinney, Uvalde, and Val Verde Counties were tabulated by Follett (1956).

The geology of a 3-mile-wide strip along the Rio Grande was mapped by the United States section of the International Boundary and Water Commission (1950-51) and published by the Bureau of Economic Geology of the University of Texas. The geology of part of the county has been mapped by Freeman (1964b, c, and 1965) and by Sharps and Freeman (1965).

Chemical analyses of water samples from wells and springs in southwestern Val Verde County and a potentiometric-surface map of the Edwards and associated limestones covering most of the county were prepared and published by the International Boundary and Water Commission, United States and Mexico (1956). A reconnaissance report on the ground-water resources of the middle Rio Grande Basin, including Val Verde County, was prepared by Brown and others (1965).

Selected unpublished well and spring data, water-level measurements, and chemical analyses from the files of the United States section of the International Boundary and Water Commission have been used in this report. The well numbers (ID or WO numbers) used by the Commission are given in the "remarks" column of the records of wells and springs (Table 4).

Table 1.—Index of Previously Published Well Numbers and Corresponding Numbers in This Report [1/]

NEW NUMBER	OLD NUMBER
YR-54-48-701	153
801	156
51-801	7
52-301	22
503	24
601	25
604	21
701	31
801	27
53-201	18
302	19
54-101	20
401	129
501	130
601	131
701	128
55-701	134
902	136
56-404	151
504	150
701	145
59-301	32
60-201	30
301	35
302	37
801	55
802	52
61-901	41
62-501	127
601	123
602	122
901	105
63-801	120
64-101	142
102	143
402	140
55-41-701	157
49-106	159
501	162
51-401	167
YR-55-41-701	168
58-201	207
202	208
301	206
601	210
602	209
59-101	203
102	202
701	212
702	211
70-01-201	253
801	280
02-201	246
203	239
301	244
304	229
603	231
901	297
03-101	227
10-101	292
201	296
202	293
501	294
801	306
11-401	301
18-101	311
201	307
302	305
401	347
25-601	447
604	446
801	445
26-201	351
33-604	440
701	427
801	431
41-301	435
42-201	403
43-101	360
YR-71-03-101	59
401	60
701	62
801	63
06-201	102
601	106
07-401	111
11-601	64
12-401	65
501	66
504	64
13-401	68
601	72
801	74
14-201	100
301	99
15-101	95
203	93
401	94
701	84
901	92
16-101	90
102	91
801	89
21-301	75
23-101	85
901	476
24-301	316
31-201	483
32-101	475
102	474
201	473
301	453
401	471
601	452
701	467
801	466
40-904	462

[1/] Frazier (1940).

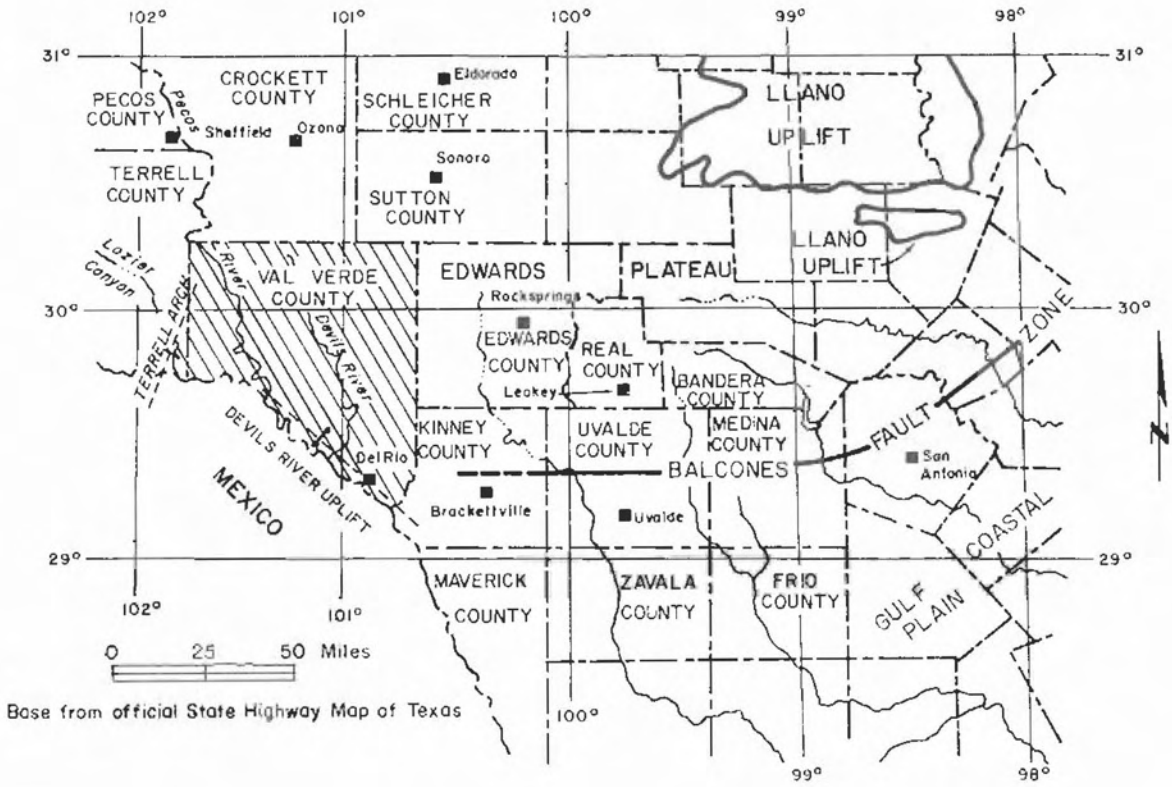


Figure 1.—Location of Val Verde County and Physiographic Features of Southwest-Central Texas

Well-Numbering System

The well-numbering system in this report, based on the divisions of latitude and longtitude, is the one adopted by the Texas Water Development Board for use throughout the State. Figure 2 illustrates the well-numbering system. Under this system, each 1-degree quadrangle in the State is given a number consisting of two digits; the report area includes parts of quadrangles 54, 55, 70, and 71 (Figure 18). These are the first two digits appearing in the well number. Each 1-degree quadrangle is divided into 7½-minute quadrangles, which are given two-digit numbers from 01 to 64. These are the third and fourth digits of the well number. Each 7½-minute quadrangle is subdivided into 2½-minute quadrangles, which are given single-digit numbers from 1 to 9. This is the fifth digit of the well number. Finally, each well within a 2½-minute quadrangle is given a two-digit number, starting with 01. These are the last two digits of the well number. In addition to the seven-digit well number, a two-letter prefix is used to identify the county. The prefixes for Val Verde County and adjacent counties are as follows:

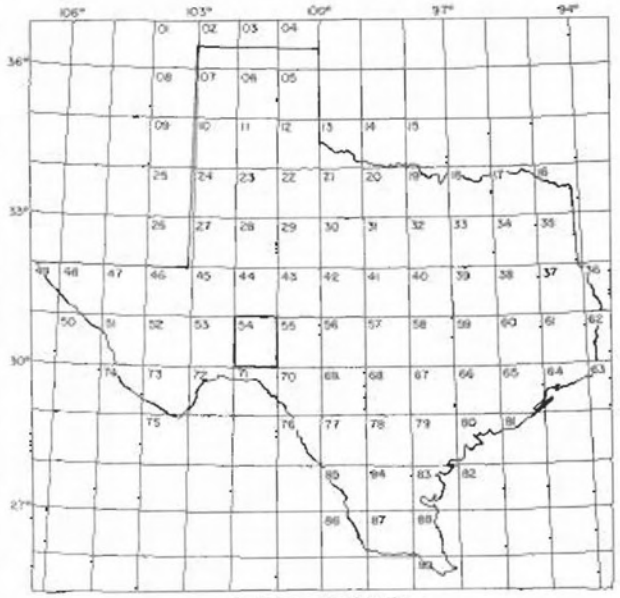
COUNTY	PREFIX	COUNTY	PREFIX
Crockett	HJ	Sutton	XS
Edwards	JJ	Terrell	XX
Kinney	RP	Val Verde	YR

Acknowledgments

Appreciation is expressed to the many landowners, ranchers, drillers, and city officials who supplied much of the information on which this report is based. A special note of thanks is due R. M. Price of the United States section of the International Boundary and Water Commission, who supplied a great deal of information about wells and springs in the southern part of the county; thanks also are due to the U.S. Commissioner, J. F. Friedkin, who gave permission to use much of the data collected by the United States section of the International Boundary and Water Commission.

Topography and Drainage

Most of the land surface of Val Verde County is predominantly rough and rolling terrain typical of the Edwards Plateau. The extreme southeastern part of the county consists of gentle, slightly rolling terrain characteristic of the Gulf Coastal Plain. Downcutting by the major streams in the southwestern and south-central parts of the county has formed fairly deep canyons with vertical to almost vertical walls. In the northern and western parts of the county, dissection of the plateau has created narrow valleys having steep slopes, except along the major streams where the valleys are much wider. The altitude of the land surface ranges from about 860 feet above mean sea level in the Rio Grande



1 - degree Quadrangles

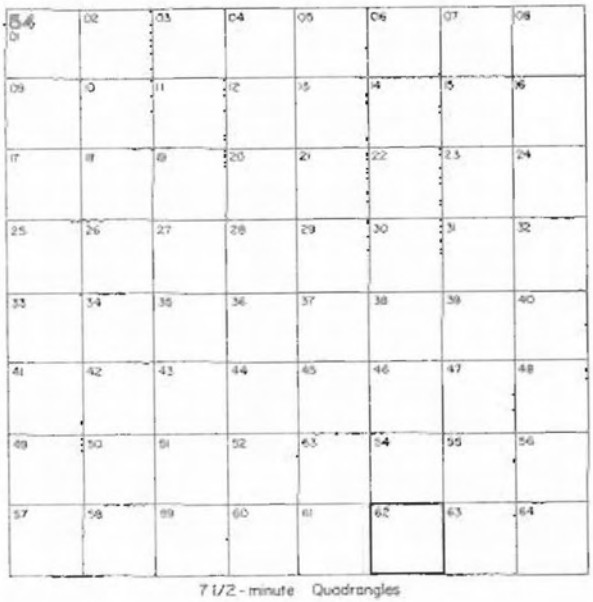
Location of Well 54-62-6 01

54 1 - degree quadrangle

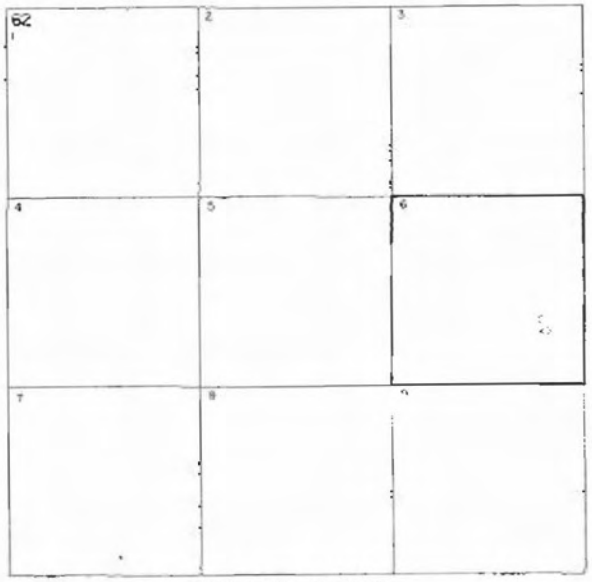
62 7 1/2 - minute quadrangle

6 2 1/2 - minute quadrangle

01 Well number within 2 1/2 - minute quadrangle



7 1/2 - minute Quadrangles



2 1/2 minute Quadrangles

Figure 2

Well-Numbering System

valley in the southeastern part of the county to almost 2,400 feet in the northwestern part.

Val Verde County is drained by the Rio Grande, which forms the border between the United States and Mexico. The two principal tributaries to the Rio Grande in the county are the Pecos River, which enters the county in the northwest corner, and the Devils River, which originates in the north-central part of the county near Juno (Figure 18).

The U.S. Geological Survey and the International Boundary and Water Commission maintain a streamflow gaging station (08449000) on the Devils River near Juno. Records of streamflow at this station and miscellaneous measurements of streamflow at other points in the county are published each year by the U.S. Geological Survey in the annual series of "Water resources data for Texas, Part I: Surface water records."

The International Boundary and Water Commission has maintained 14 gaging stations within the county; records for eight of these stations and four discontinued stations are pertinent to this report. These stations are: Rio Grande at Foster's Ranch near Langtry (08377200); Pecos River near Shumla (08447400); Pecos River near Langtry (08447410); Pecos River at Mouth near Comstock (08447700); Goodenough Springs near Comstock (08448500); Devils River at Pafford Crossing near Comstock (08449400); Devils River at Mouth near Del Rio (08450500); Eight Mile Creek near Del Rio (08451130); McKee Spring near Del Rio (08451140); Cantu Spring on Cienegas Creek near Del Rio (08451300); Rio Grande near Del Rio (08452500); and San Felipe Spring at Del Rio (08452800). The locations of these stations are shown on Figure 18.

The records of streamflow and springflow at the stations maintained by the International Boundary and Water Commission are published each year by the Commission in the open-file bulletins "Flow of the Rio Grande and Related Data." Three of the stations, Pecos River at Mouth near Comstock, Goodenough Springs near Comstock, and Devils River at Mouth near Del Rio, were discontinued in 1968 because of inundation by Amistad Reservoir. The station Pecos River at Shumla was discontinued in 1967; the station Pecos River near Langtry was established 3 miles downstream from the discontinued station (Figure 18).

Climate

Val Verde County has a semiarid climate characterized by mild winters and hot summers. Average annual precipitation varies from about 22 inches in the eastern part of the county to about 12 inches in the western part. The average annual precipitation at Del Rio from 1931 through 1969 was 18.26 inches (Figure 3). Most of the rainfall occurs from April through October (Figure 4) chiefly as showers or heavy downpours during thunderstorms. In general, the rainfall is insufficient for dry-land farming.

The average annual temperature at Del Rio is about 70°F (21°C). The average monthly temperature ranges from 52°F (11°C) in December and January to 85°F (29°C) in July and August (Figure 4). The average annual gross lake-surface evaporation from 1940 to 1965 was 86.0 inches (Kane, 1967), which is more than four times the average annual precipitation.

Average annual gross lake-surface evaporation at Amistad Dam for the period March 1963 through December 1967 was 115.29 inches, over seven times the average annual precipitation of 15.76 inches at the dam (International Boundary and Water Commission, United States and Mexico, 1967, p. 164).

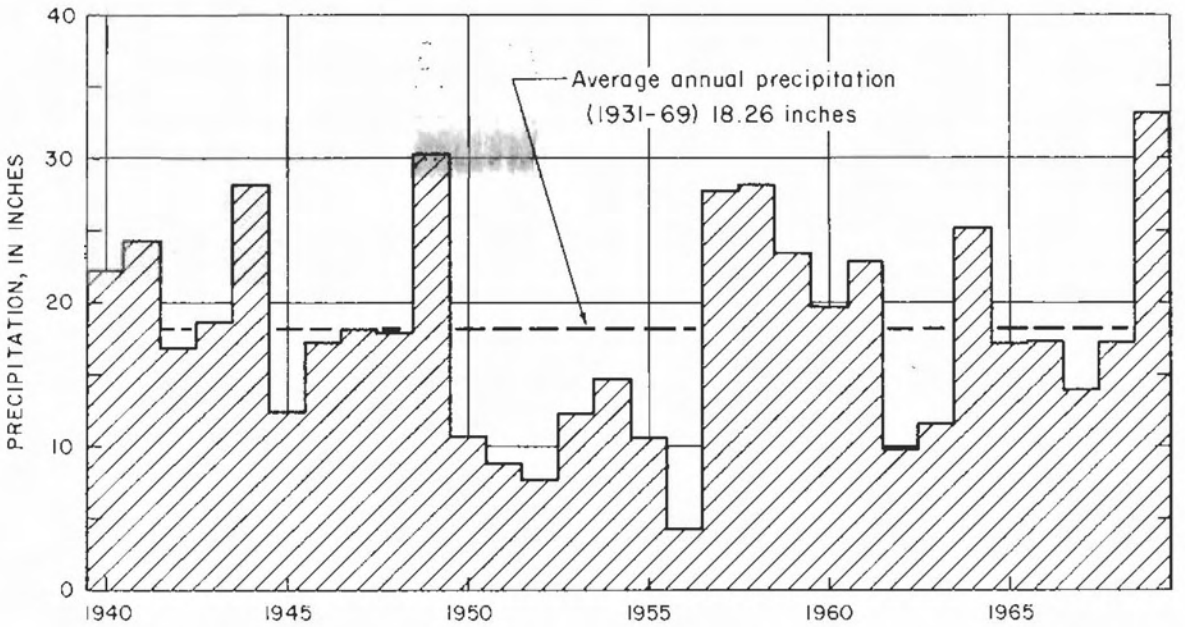
GEOLOGY AS RELATED TO THE OCCURRENCE OF GROUND WATER

The geologic formations penetrated by water wells in Val Verde County are composed chiefly of limestones and dolomites that range in age from Early Cretaceous to Holocene. The geologic map (Figure 5) shows that the Edwards and associated limestones are exposed in approximately two-thirds of Val Verde County. These units dip to the south and southwest, and in most places in the southern and western parts of the county they are covered by younger formations. The Glen Rose Limestone is exposed in the extreme northwestern part of the county where the Pecos River has cut through the Edwards and associated limestones.

The primary structural feature affecting the occurrence of ground water is the dip of the rock units toward the south and southwest at 40 to 70 feet per mile (Figures 6, 7). Ground water, much of which enters the county as underflow from adjacent counties north and east of Val Verde County, moves down dip toward areas of discharge in the southern part of the county.

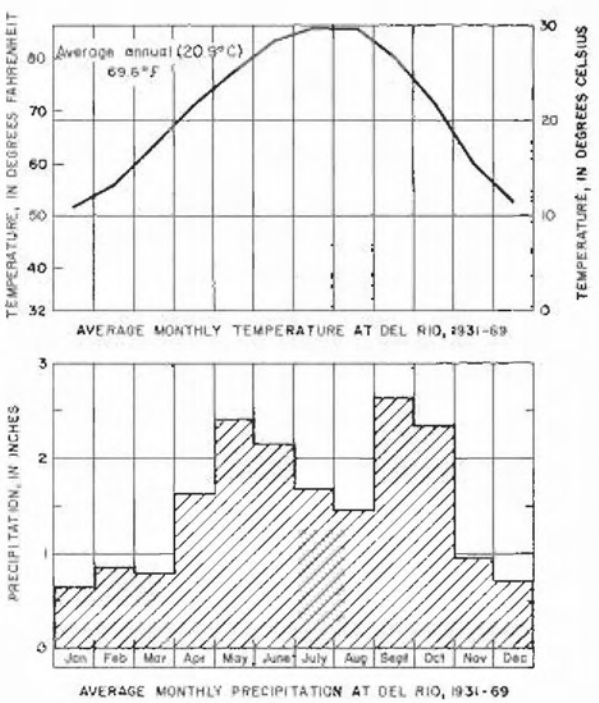
Small normal faults, or tension faults, and joints are common in the southern part of the county. Uplift during Pleistocene time probably preferentially "opened" the northeast-trending planes of weakness (fractures and bedding planes) in the rocks (Freeman, 1968, p. K21), and subsequent downward percolation of rainfall has enlarged the openings by solution resulting in a system of interconnected cavities.

The occurrence and movement of ground water is strongly controlled by these openings in the limestone and dolomite units. The depths at which these solution-widened bedding planes or fractures may be encountered by a well bore can vary widely within a short distance. Many of the springs in the county issue from northeast-trending faults and joints.



Data from National Weather Service (U.S. Weather Bureau)

Figure 3.—Average Annual Precipitation at Del Rio



Data from National Weather Service (U.S. Weather Bureau)

Figure 4.—Average Monthly Temperature and Precipitation at Del Rio

The principal water-bearing unit in Val Verde County is the Edwards and associated limestones. A few wells locally obtain small quantities of water from the Glen Rose Limestone, the Boquillas Flags, and the alluvial deposits of Pleistocene and Holocene age. The lithology and water-bearing properties of all the units in the county are summarized in Table 2.

For general discussions of the relative well or spring yields, the following ratings are used:

DESCRIPTION	YIELD (GALLONS PER MINUTE)
Very small	0- 5
Small	5- 25
Moderate	25-100
Large	More than 100

Pre-Cretaceous Rocks

Pre-Cretaceous rocks are not exposed in Val Verde County. The nearest exposure is approximately 6 miles north, in Terrell and Crockett Counties, where a small area of Lower Permian limestone is exposed in the Pecos River Valley (West Texas Geological Society Guidebook, 1959, p. 54).

Table 2.—Stratigraphic Units and Their Water-Bearing Properties

SYSTEM	SERIES OR GROUP		STRATIGRAPHIC UNIT	APPROXIMATE MAXIMUM THICKNESS (FT)	CHARACTER OF ROCKS	WATER-BEARING PROPERTIES
Quaternary	Pleistocene and Holocene		Alluvium	50	Clay, silt, sand, and gravel	Yields very small to moderate quantities of fresh water to a few domestic and livestock wells along the major streams.
Cretaceous	Gulf Series	Austin Chalk		200	Thin- to thick-bedded limestone and thin beds shaly limestone.	Not known to yield water to wells in Val Verde County.
		Boquillas Flags		268 +	Thin- to medium-bedded sandy limestone and thin beds of black calcareous shale.	Yields very small quantities of fresh to slightly saline water to a few livestock wells.
	Comanche Series	Washita Group	Buda Limestone	90	Hard, porcellaneous and marly limestones.	Yields very small quantities of fresh water to a few domestic and livestock wells in Val Verde and Kinney Counties.
			Del Rio	136 +	Shale and thin beds of arenaceous limestone and sandstone.	Not known to yield water to wells.
		Fredericksburg Group	Edwards and associated limestones: Georgetown Limestone	500 +	Hard, massive limestone with thin stringers of shale; contains chert nodules and pyrite.	One of the principal aquifers in the county. Yields very small to large quantities of fresh water to livestock, domestic, irrigation, industrial and public supply wells in the southern part of the county.
			Kiamichi Formation	283	Shaly limestone, calcareous shale, chert, and gypsum.	Generally yields small quantities of slightly to moderately saline water in the southern part of the county. Fresh water may be obtained from wells near the up-dip limit of the formation.
			Edwards Limestone	300	Hard, massive, cherty limestone and some dolomite.	One of the principal aquifers in the county. Yields very small to large quantities of fresh water to livestock, domestic, and irrigation wells in most of the county.
			Comanche Peak Limestone	100	Marly, nodular limestone.	Not differentiated from Edwards Limestone.
		Trinity Group	Glen Rose Limestone	1,320	Shale, shaly limestone, limestone, and sand.	Yields very small to moderate quantities of water to livestock and domestic wells; much of the water is slightly saline.
			Basement sand	445	Sand, sandstone, shale, shaly limestone, and dolomite.	Not known to yield water to wells in Val Verde County.
Pre-Cretaceous		?	?	?	Limestone, shale, sandstone, dolomite, and volcanic and metamorphic rocks.	Except for one well, this unit is not a source of ground water in Val Verde County. In general, the pre-Cretaceous rocks probably contain water too highly mineralized for most uses.

Cretaceous rocks are underlain by Lower Permian rocks in the northern and central parts of the county. In the southern part of the county the Cretaceous rocks are underlain by unmetamorphosed to highly metamorphosed lower Paleozoic rocks or by metamorphosed Precambrian rocks of the Devils River Uplift (Figure 1) (Flawn and others, 1961, p. 144). Drillers' logs of oil tests indicate that the pre-Cretaceous rocks in the northern and central parts of the county consist of shale, shaly sandstone, sandstone, limestone, and dolomite. The rocks in the southern part of the county consist of limestone, dolomite, shale, sandstone, volcanic rocks, and metamorphosed rocks such as marble, phyllite, slate, and quartzite.

Little is known of the water-bearing properties of the pre-Cretaceous rocks in Val Verde County. Water collected during a drill-stem test from a cavity in the Ellenburger Group at 2,408 feet in well YR-70-25-602 reportedly contained 200 mg/l (milligrams per liter) of chloride. Prior to the drill-stem test and after circulation had been lost in the cavity, the reported water level in the well was 332 feet below land surface. A water sample collected from the same well at approximately 5,650 feet reportedly contained 47,900 mg/l of chloride.

Not enough deep wells have been drilled in Val Verde County to determine the water-bearing properties of the pre-Cretaceous rocks. In general, the pre-Cretaceous rocks probably contain water that is too highly mineralized for most uses.

Cretaceous System

The lowermost Cretaceous rocks penetrated in oil tests in Val Verde County are referred to in this report as basement sands. Correlation is difficult, but the unit probably includes in part the Hosston and Sligo Formations of Coahuila age and the Pearsall Formation of Comanche age (Imlay, 1945, p. 1425-41). The basement sands do not crop out in Val Verde County. The approximate altitude of the base of the Cretaceous rocks is shown in Figure 6.

According to logs of several oil tests, the basement sands are composed chiefly of sand, sandstone, shale, shaly limestone, and dolomite. Thickness of the unit is variable but is generally less than 50 feet in most of the county (Figures 8 and 9). The maximum reported thickness is 445 feet in well YR-70-41-207. The unit may be absent in places on the structural high in the southern part of the county (Figure 10).

Not enough deep wells have been drilled to determine the water-bearing properties of the unit. Nevertheless, it is likely that the water available in the basement sands would be too highly mineralized for most uses.

Trinity Group

Glen Rose Limestone

The Glen Rose Limestone, the oldest formation exposed in Val Verde County, crops out along the Pecos River in the extreme northwestern part of the county (Figure 5).

The Glen Rose Limestone consists chiefly of shale, shaly limestone, and thin-bedded limestone in the upper part, with thicker, more massive beds of limestone in the lower part. The Glen Rose ranges in thickness from about 1,320 feet in the southern part of the county to about 380 feet in the northern part (Figure 8).

The Glen Rose Limestone yields very small to moderate quantities of mostly slightly saline water (1,000 to 3,000 mg/l of dissolved solids) to a few wells in the northern part of the county. Generally, this water is too mineralized for domestic use, but it is satisfactory for livestock.

Fredericksburg and Washita Groups

The Fredericksburg Group in Val Verde County includes, in ascending order, the Comanche Peak Limestone, the Edwards Limestone, and the Kiamichi Formation. The Walnut Clay, the lowermost formation of the Fredericksburg Group, has not been recognized in Val Verde County. The Washita Group includes the Georgetown Limestone, the Del Rio Clay, and the Buda Limestone. The Comanche Peak Limestone, the Edwards Limestone, the Kiamichi Formation (where present), and the Georgetown Limestone form a single hydrologic unit and are referred to as the Edwards and associated limestones. The approximate altitude of the base of the Fredericksburg Group is shown on Figure 7.

Comanche Peak Limestone

The Comanche Peak Limestone, the oldest formation in the Fredericksburg Group, crops out along the Pecos River in the extreme northwestern part of the county.

The Comanche Peak consists of a light-gray, marly, nodular limestone ranging in thickness from 100 feet in the subsurface to 20 feet at the outcrop.

Although the Comanche Peak Limestone is recognizable at the outcrop, it is difficult to distinguish between the Comanche Peak and the Edwards and associated limestones in drill cutting and on electric logs; consequently, the water-bearing properties of the Comanche Peak are not known, and the formation is included as part of the Edwards and associated limestones.

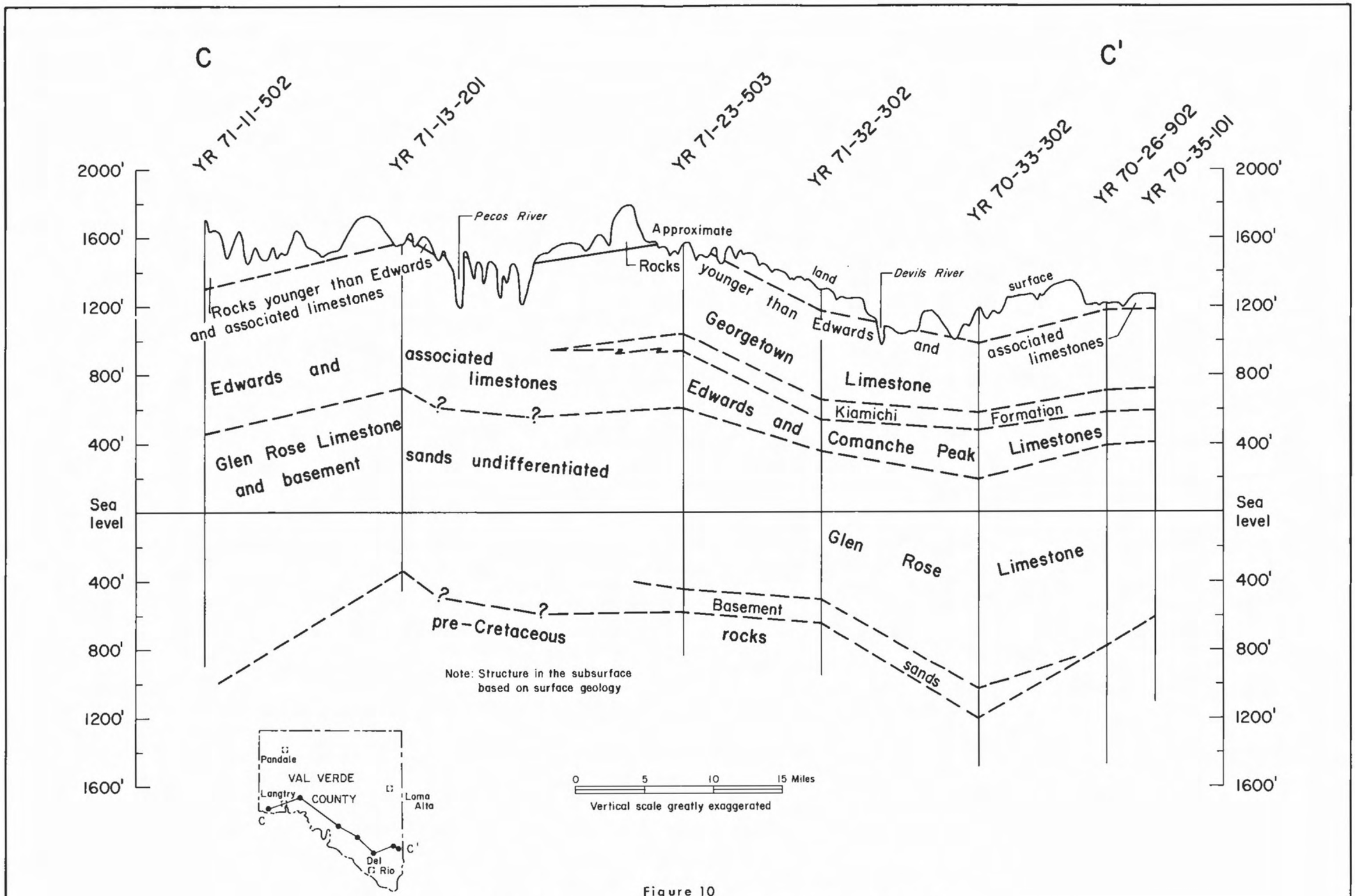
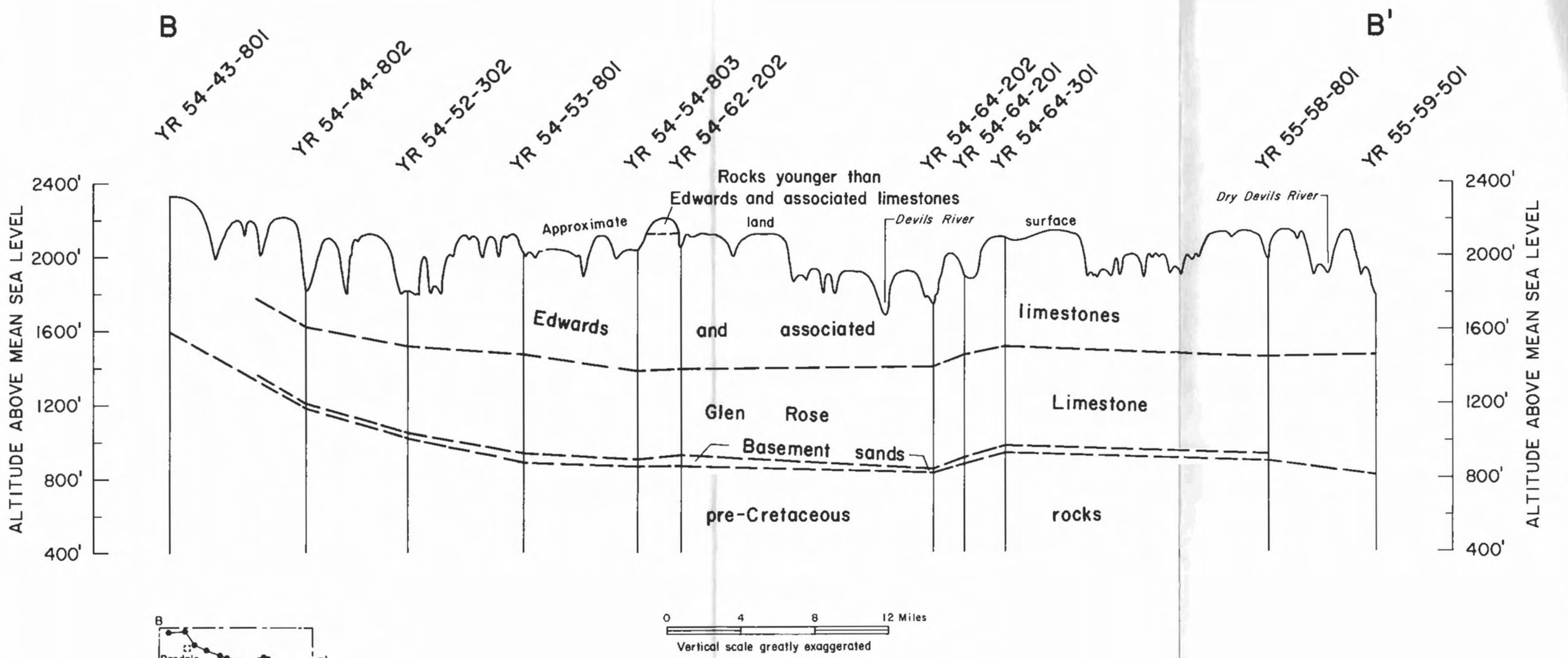


Figure 10

Correlation of Formations Between Wells Along Line C-C'



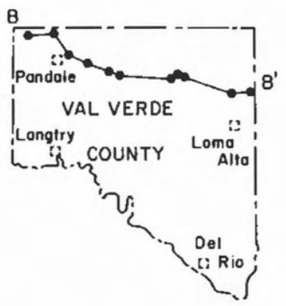


Figure 9

Correlation of Formations Between Wells Along Line B-B'

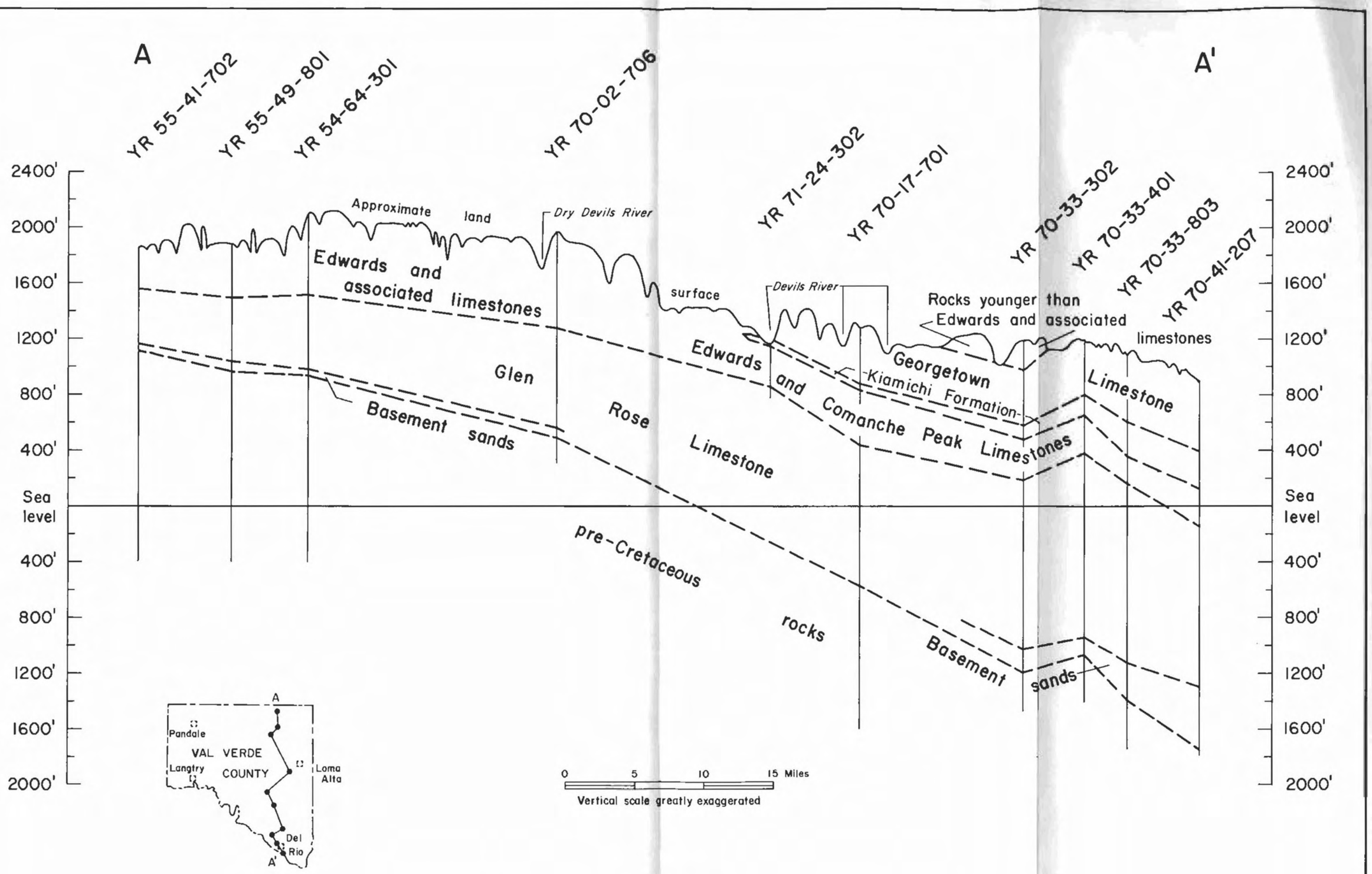


Figure 8
Correlation of Formations Between Wells Along Line A-A'

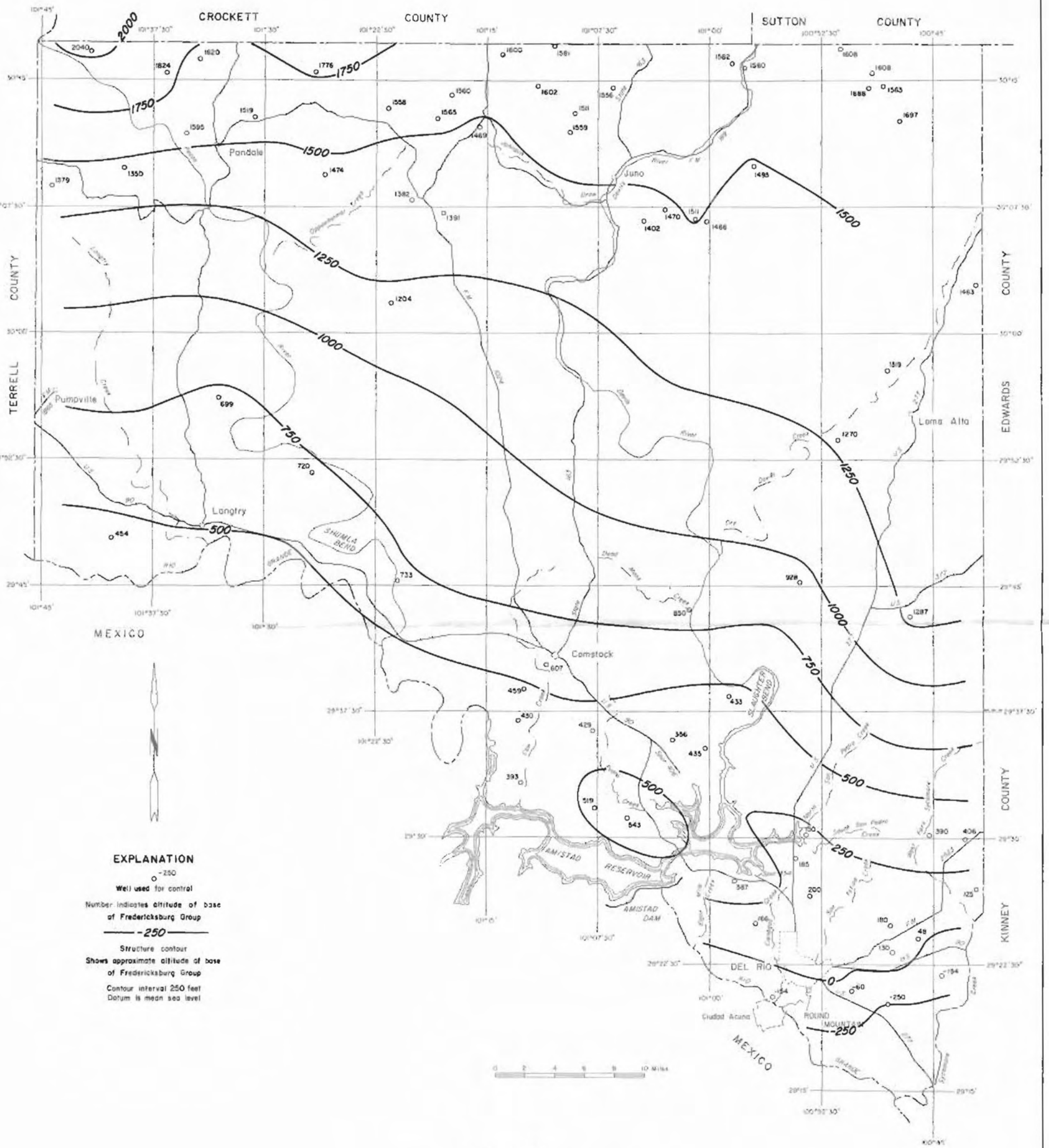


Figure 7

Approximate Altitude of the Base
of the Fredericksburg Group

Base from General Highway Map of Texas

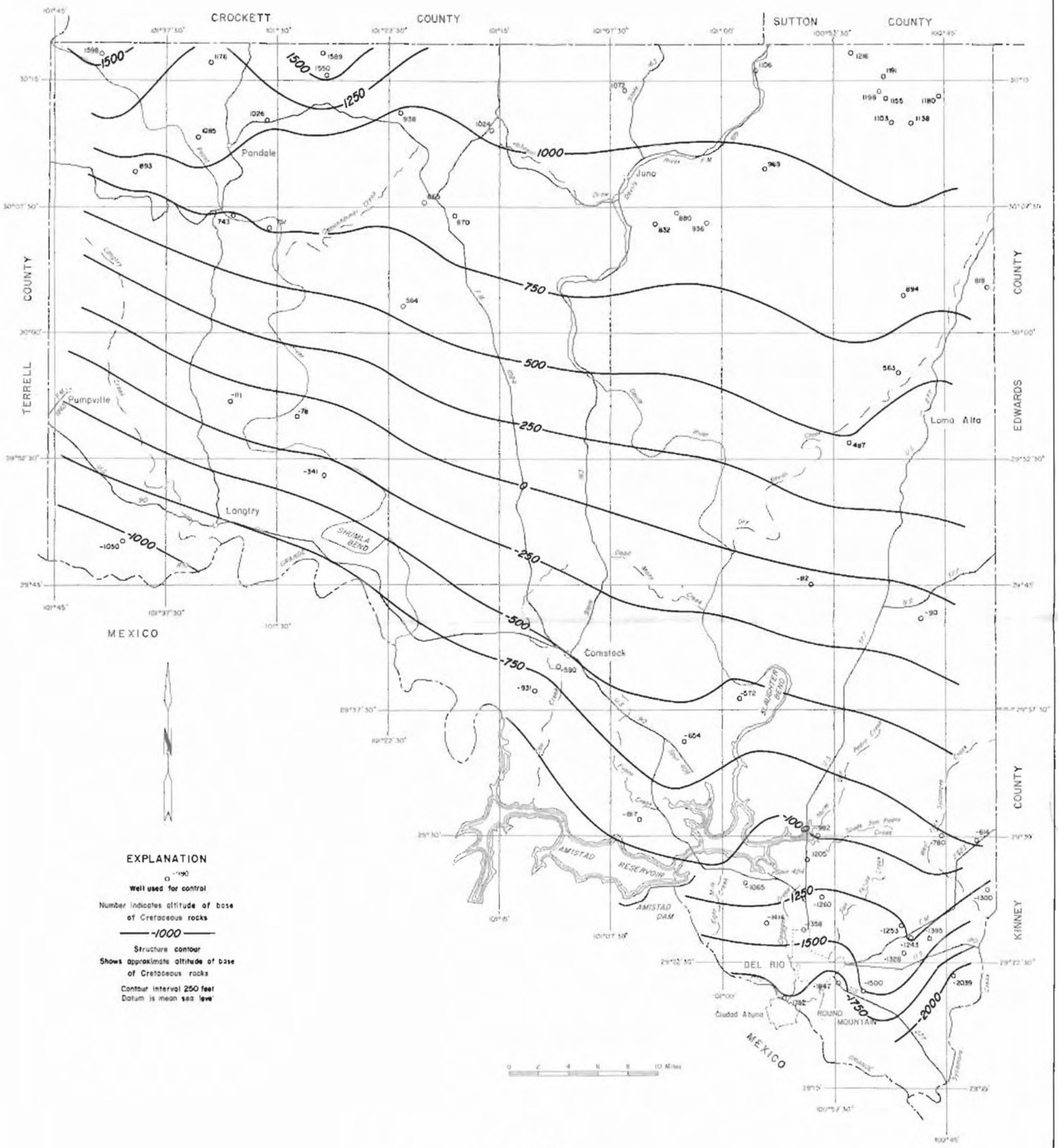


Figure 6
Approximate Altitude of the Base
of the Cretaceous Rocks

Base from General Highway Map of Texas

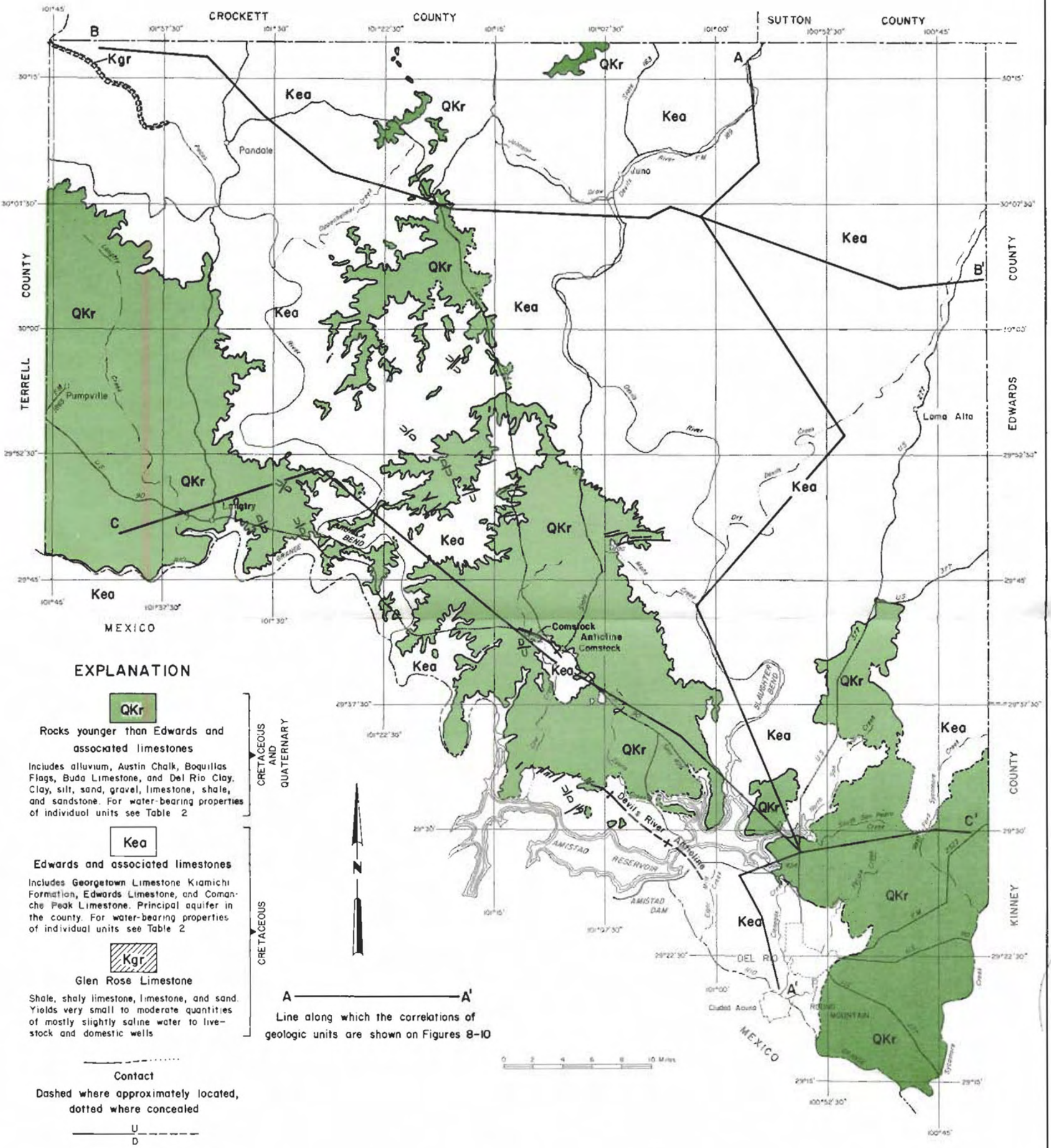


Figure 5
Geologic Map

Base from General Highway Map of Texas

Geology adopted from International Boundary and Water Commission (1950-51), Freeman and Sharps (1957-64), and field notes

Edwards Limestone

Lithologically, the Edwards resembles the Georgetown, and differentiation between these rock units in the field was not made in the northern part of the county. The Edwards Limestone is a light-gray, dense, hard, massive, cherty limestone that is locally dolomitic. In well YR-70-17-701, the thickness of the Edwards is about 300 feet (Figure 8).

The Edwards Limestone is one of the principal aquifers in Val Verde County. Water of good chemical quality from wells tapping this unit is used for irrigation, domestic supply, and livestock in the northern two-thirds of the county. In this area, the Edwards generally is not fully saturated and the water levels are deep. In some areas in the northern quarter and the extreme western part of the county where the Edwards yields only a few gallons per minute to wells, a few wells (such as wells YR-54-55-404, YR-70-02-302, and YR-71-03-101) were drilled into the underlying Glen Rose Limestone to obtain additional water.

Nearly all the wells that tap the Edwards Limestone in the northern two-thirds of the county yield very small to small quantities of water; however, near the Devils River north of Juno, the Edwards Limestone yields large quantities of water to a few irrigation wells. In the southern one-third of the county, some wells tap the Edwards Limestone, but most of the water pumped is from the Georgetown Limestone.

The areas most favorable for drilling large-capacity wells in the Edwards Limestone are near the major streams (such as the area north of Juno), near faults or fracture systems, and in the southern part of the county, where the aquifer is fully saturated.

The chemical quality of water in the Edwards Limestone varies widely within the county, but in general it is suitable for most purposes, although it is somewhat hard. In the southern part of the county, some wells tapping the Edwards Limestone yield slightly saline water.

Kiamichi Formation

The thickness of the Kiamichi Formation ranges from about 50 feet at well YR-71-24-302 at the confluence of Dead Mans Creek and Devils River (Figure 18) to about 283 feet in well YR-70-33-702 near Del Rio (Table 5). This formation is absent or unrecognized north of a line from about the mouth of the Pecos River to the junction of U.S. Highways 277 and 377 (Figure 18). North of this line, the Comanche Peak, Edwards, and Georgetown Limestones are lithologically similar and were described together by Udden (1907, p. 55-60) as the Devils River Limestone. South of this line, the Kiamichi Formation is recognizable as a distinct lithologic unit. It is recognized at the outcrop in only two places in the county, both of which are in the Devils River Valley. Approximately the uppermost 20 feet of Kiamichi crops out in a small area at the mouth of Dead Mans Creek, and the top 2 or 3 feet are exposed about 1 mile northwest of well YR-70-17-901 in the Slaughter Bend area (Figure 18).

The Kiamichi Formation consists chiefly of dark-brown to dark-gray shaly limestone and dark-gray to black, brittle, calcareous shale that contains some anhydrite, gypsum, and chert in the area east and southeast of Amistad Dam. North and northwest of Amistad Dam, it is a gray to brown, slightly shaly limestone and contains some chert, the unit is distinguishable from the overlying Georgetown principally by its shale content.

Cores from wells YR-70-33-702, YR-71-40-501, and YR-71-40-901 indicate that the Kiamichi contains many fractures and solution openings as well as thick beds of anhydrite and gypsum. Evidence of intraformational collapse was observed in several beds. The collapse probably resulted from the conversion of anhydrite to gypsum and the solution of gypsum by water percolating along fractures.

East and southeast of Amistad Dam, the Kiamichi contains a greater thickness of shale than elsewhere in the county. This shale is nearly impermeable and thus restricts ground-water movement between the overlying Georgetown Limestone and the underlying Edwards Limestone. Differences in ground-water head between these two formations have been observed in wells where the thick beds of shale in the Kiamichi are known to separate them. North and northwest of Amistad Dam, where the Kiamichi Formation is thinner, it is not known to restrict ground-water movement between the overlying Georgetown and underlying Edwards Limestone.

The water-bearing properties of the Kiamichi Formation in Val Verde County are not well known. Wells tapping the overlying Georgetown Limestone usually supply sufficient quantities of water for most uses, and very few wells have been drilled into the Kiamichi. Well YR-70-33-903, however, was plugged back because of mineralized water in the Kiamichi, and a large quantity of slightly saline water was pumped from well YR-70-42-209 from a 2-foot cavity at 710 feet in the Kiamichi.

In general, the Kiamichi Formation contains slightly saline to moderately saline water in the explored areas of Val Verde County. Locally, wells such as well YR-70-33-201 may yield water having a strong odor of hydrogen sulfide gas. Near the northernmost extent of the Kiamichi, the water may be fresh.

Georgetown Limestone

The Georgetown Limestone crops out over much of the southern half of Val Verde County. It is a massive cliff-forming limestone, and many of the deep canyons in the southern part of the county are cut entirely in the Georgetown Limestone.

The Georgetown Limestone is chiefly light- to blue-gray, dense, medium- to massive-bedded limestone containing scattered thin shale stringers. The formation contains pyrite and disseminated chert nodules in the lower part. Near Del Rio, where the uppermost 10 to 20 feet of the formation is exposed, it consists of a soft, marly, very light-gray, very pyritic limestone. This upper unit may be present in the subsurface southeast of Del Rio.

The thickness of the Georgetown at the outcrop was not determined. In the subsurface, the thickness ranges from 400 feet to slightly more than 500 feet (Figures 8, 10).

The Georgetown Limestone is the principal aquifer in the southern part of the county where the Kiamichi separates the Georgetown and the Edwards Limestones (shown on Figure 18). Wells tapping the Georgetown yield very small to large quantities of fresh, hard water used for domestic supply, livestock, industry, and irrigation. Because an adequate supply of water is generally available from the Georgetown, wells seldom are drilled into the underlying formations. In the extreme southeastern part of the county, the slightly to moderately saline water in the underlying Kiamichi generally deters further drilling.

Sinkholes are numerous in the areas where the Georgetown Limestone crops out. Some are shallow, circular depressions, ranging from a few to many feet in diameter; and although they do not have a visible inlet, they do not hold water. These sinkholes have a random areal distribution, and the geologic factors that control their development are not apparent. Others are sinkholes with visible inlets that range in size from 0.1 foot to more than 100 feet in diameter. The sinkholes are roughly circular or elongated in shape and are commonly alined along faults or joints through part of their length. The known depths range from about 1 foot to more than 260 feet.

The holes or shafts may open up at depth into small, roughly circular rooms or into a series of long, narrow, nearly horizontal passageways along solution-widened faults, joints, or bedding planes. Several levels of solution are evident in some of the caves, and a few of the caves have more than one entrance; however, only one cave could be classified as the labyrinth type, that is, "a complex of many irregular and repeatedly connected passages" (Monroe, 1970, p. K2).

A fault cave near the Rio Grande, between Amistad Dam and Del Rio, was followed for about a mile along the intersection of faults and bedding planes. The size of the passageways ranged from large rooms 10 to 15 feet wide and 5 to 8 feet high to small openings less than 2 feet high and 3 feet wide. In general, the cave level is about 2 feet above the present water level and about 30 feet above water-surface altitude of the Rio Grande.

Numerous solution openings from which springs probably issued were observed along the banks of the Rio Grande and Devils River. Some of the openings are as much as 50 feet above the stream level, but most are less than 30 feet above stream level.

A few of the sinkholes in the county intersect the water table and contain pools of water. Flow, which was very slow, was observed in only one pool.

Several sinkholes, primarily near the intersection of Devils River and San Pedro Creek, have been observed to capture all of the storm runoff in the canyon or draw in which they were located. Only very severe storms could produce enough runoff to pass them. This area is now covered by Amistad Reservoir.

At least two of the sinkholes that could capture large quantities of storm runoff were associated with large collapse or subsidence areas, which are common in the Devils River-San Pedro Creek area. In these collapse areas, solution in the Georgetown Limestone apparently formed large caverns whose ceilings could not support the overlying beds of Georgetown and younger formations. Freeman (1968, p. K22-K24) describes other subsidence areas farther west in the county.

In wells tapping the Georgetown Limestone, water is found in solution-widened openings along faults, fractures, and bedding planes at widely varying levels. The limestone itself is dense and practically impermeable. In much of the outcrop area, water rises in a well bore above the point where it first enters the well.

An example of the wide variation in depths to solution openings is shown by the varying range of levels at which solution openings were found in grouting operations along the axis of Amistad Dam. In one area, highly permeable and apparently interconnected solution-widened fractures or faults could be traced in a series of adjacent holes drilled for injecting grout. The solution openings were found at either progressively higher or lower levels in adjacent holes. Fewer solution openings were found in the lower part of the holes, but those that were found were evidently large, as indicated by the reported large volume of grout pumped into them. This data is restricted to a single line of holes located along a 7-mile line along the axis of Amistad Dam from the Rio Grande to Highway 90 and east on Highway 90 to its intersection with Spur 454

(Figure 18). The holes are 3 inches in diameter, 100 to 300 feet deep, and 2 to 20 feet apart. The geologic conditions encountered during these operations are probably more or less typical of the Georgetown Limestone throughout the outcrop area.

Although there are many openings in the subsurface, the chance of finding a large one in any one hole below the potentiometric surface is not good, as indicated by the very few large-capacity wells and the many very small-capacity wells. In the course of field work, some of the ranchers reported that several borings were drilled before obtaining a well having an adequate capacity. Well YR-70-33-604 reportedly yields a small supply of water from a solution opening at about 500 feet, and well YR-70-33-602 yields a large supply of water from a solution opening between 210 and 230 feet. A solution opening yielding a large supply of water between 460 and 570 feet was reported in well YR-71-23-502 near Comstock. Two nearby wells, YR-71-23-504 and YR-71-23-505, were drilled to depths of about 1,000 feet and neither of them yielded more than 10 gpm.

Del Rio Clay

The Del Rio Clay overlies the Georgetown Limestone in most of the southern part of the county. The type section of the Del Rio Clay is southeast of Del Rio at a conical butte called Loma de la Cruz by Hill and Vaughn in 1898 (Sellards and others, 1932, p. 387). This is probably the hill called Round Mountain on the Del Rio quadrangle map. Freeman (1968, p. K6) reestablished the name Del Rio Clay for this area.

The Del Rio is a dark-blue shale that weathers to yellow-brown. Thin beds of sandy limestone and very fine-grained sandstone or silty sandstone are also present.

The formation, which is thickest in the southeastern part of the county (136 feet in well YR-70-42-208), is missing entirely in the area from west of Shumla Bend into Terrell County (over the Terrell Arch) and north of a line from Shumla Bend to about the confluence of the Dry Devils River with the Devils River (Freeman, 1968, p. K8).

The Del Rio Clay is not known to yield water to wells in Val Verde County.

Buda Limestone

The Buda Limestone, which overlies the Del Rio Clay, crops out extensively in the southern part of the county. In general, it is composed of three parts: The upper and lower parts are light tan or very pale orange, hard, very dense sublithographic or porcelaneous limestone containing small specks of calcite; the middle part is a marly, nodular limestone.

The Buda Limestone ranges in thickness from about 50 feet near the Devils River north of Slaughter Bend and along the Pecos River as far south as Shumla Bend (Freeman, 1968, p. K10) to about 90 feet on the south bank of South San Pedro Creek (West Texas Geological Society, 1959, p. 46).

The Buda Limestone yields very small quantities of fresh water to a few wells in Val Verde and Kinney Counties.

Gulf Series

The Gulf Series in Val Verde County is composed of the Boquillas Flags and the Austin Chalk.

Boquillas Flags

In Val Verde County, the Boquillas Flags is the western equivalent of the Eagle Ford Shale (Sellards and others, 1932, p. 431). The Boquillas rests unconformably on the underlying Buda (Freeman, 1968, p. K10) and crops out over most of the southwestern part of the county. Elsewhere in the county, it occurs occasionally in isolated thin patches capping the higher hills.

The Boquillas is composed chiefly of light- to dark-gray, thin- to medium-bedded, silty, sandy, dense limestone and very thin beds of black, calcareous shale. The range in thickness of the formation was not determined; however, in well YR-71-11-902 the thickness was at least 258 feet.

The Boquillas Flags yields very small quantities of fresh to slightly saline water to a few wells in Val Verde County. The formation has a limited saturated thickness, due chiefly to its high topographic position and to its small areal extent. Its transmissive properties are generally low, and it is therefore an unimportant source of water in Val Verde County.

Austin Chalk

The Austin Chalk crops out in two areas in southwestern Val Verde County. It is exposed extensively in an area of 70 to 90 square miles between Langtry and the Terrell County line and caps the high hills in an area of 15 to 20 square miles about 4 miles north of Comstock and west of State Highway 163. It conformably overlies the Boquillas Flags and may be as thick as 200 feet (Freeman, 1968, p. K14). The Austin Chalk consists primarily of thin- to thick-bedded, hard, light tan to yellow-gray limestone and very thin to thin beds of laminated shaly limestone.

The Austin Chalk is not known to yield fresh water to wells in Val Verde County.

Quaternary System

The alluvium of Pleistocene and Holocene age consists of clay, silt, sand, and gravel and commonly occurs as floodplain deposits along the major streams and some of the major arroyos. Terrace deposits containing gravels derived from rocks far to the west occur on bluffs along the Rio Grande. The maximum observed thickness of alluvium was found in the Rio Grande Valley near Del Rio, where there are about 50 feet of silt, sand, and gravel.

A few shallow wells in the flood-plain deposits yield very small to moderate quantities of fresh water for livestock or domestic use.

GROUND WATER HYDROLOGY

Source and Occurrence

The source of recharge for the water-bearing formations (aquifers) in Val Verde County is precipitation within the county and in adjacent counties. Most of the precipitation is evaporated from the land surface, transpired by plants, or runs off as stream or floodflow. Only a small amount of the precipitation ultimately reaches the water table to become part of the ground water in storage.

Ground water occurs under water-table (unconfined) conditions or artesian (confined) conditions. Under water-table conditions, the water will not rise in wells above the point where it is first encountered; under artesian conditions, the water is confined by relatively impermeable layers and will rise above the base of the upper confining layer. The head that causes the water to rise in the well is maintained by the water in the aquifer in areas of recharge. The head in the artesian aquifer in Val Verde County results from the higher head maintained in the topographically higher areas in the updip extension of the artesian aquifer.

The surface to which the water will rise in wells is called the potentiometric surface. Water-table conditions occur in the Edwards and associated limestones in the northern part of the county and in the alluvial deposits in the county as a whole; artesian conditions generally occur in the Edwards and associated limestones in the southern part of the county.

Recharge, Movement, and Discharge of Ground Water

The study of the recharge, movement, and discharge of ground water in Val Verde County was concerned primarily with the Edwards and associated limestones, the principal aquifer in the area. Recharge to the aquifers in Val Verde County occurs chiefly by direct infiltration of precipitation and streamflow on the outcrop areas within the county and in adjacent counties. A small amount of recharge occurs locally by vertical seepage along faults and fractures or through semiconfining beds (interformational leakage).

The outcrops contain sinkholes and solution-widened fractures and faults which readily permit infiltration of ground water. The hydrograph of the discharge of San Felipe Springs is compared with the hydrograph of the water levels in well YR-70-42-205 and the graph of precipitation at Del Rio on Figure 11. The rapid rise of the water level in the well and the increased discharge from the spring in response to heavy rainfall are characteristic of the fluctuations of water levels in wells and spring discharge throughout the county. The rise in 1969 was also affected by the filling of Amistad Reservoir.

Ground water moves slowly under the influence of gravity from areas of recharge to areas of discharge. The movement is seldom uniform in direction or velocity. The rate of movement of ground water is a direct function not only of the size of the open spaces and interconnecting passages in rocks but also of the existing hydraulic gradient. Where water is withdrawn by pumping, the local direction of ground-water movement is toward the well from all directions.

Water entering the Edwards and associated limestones moves downward under the force of gravity to the water table or zone of saturation. Regionally, water in the zone of saturation moves down the hydraulic gradient through a system of interconnected openings along faults, joints, and bedding planes towards discharge areas (springs and seeps) along the stream valleys.

The regional south-southwest hydraulic gradient is shown on Figure 12. The hydraulic gradient is at right angles to the water-level contours representing the potentiometric surface; however, locally, water may move nearly parallel to the contours. Bennett and Sayre (1962, p. 82) indicated that in Kinney County ground water moving through solution channels in the Edwards and associated limestones probably moves nearly parallel to the water-level contours.

In Val Verde County, ground water is discharged to the surface by springs and seeps, by evapotranspiration where the water table is near the surface, and by wells. Subsurface discharge occurs mainly by vertical seepage through semiconfining beds or along faults and fractures into other aquifers having a lower hydrostatic head. As an example, during drilling and testing of well YR-71-40-901 it was observed that the water level in the Edwards Limestone was 6 feet higher than the water level in the overlying Georgetown. Subsequently, a liner was set from the surface through the Georgetown and into the Kiamichi Formation to separate the Edwards from the Georgetown so that

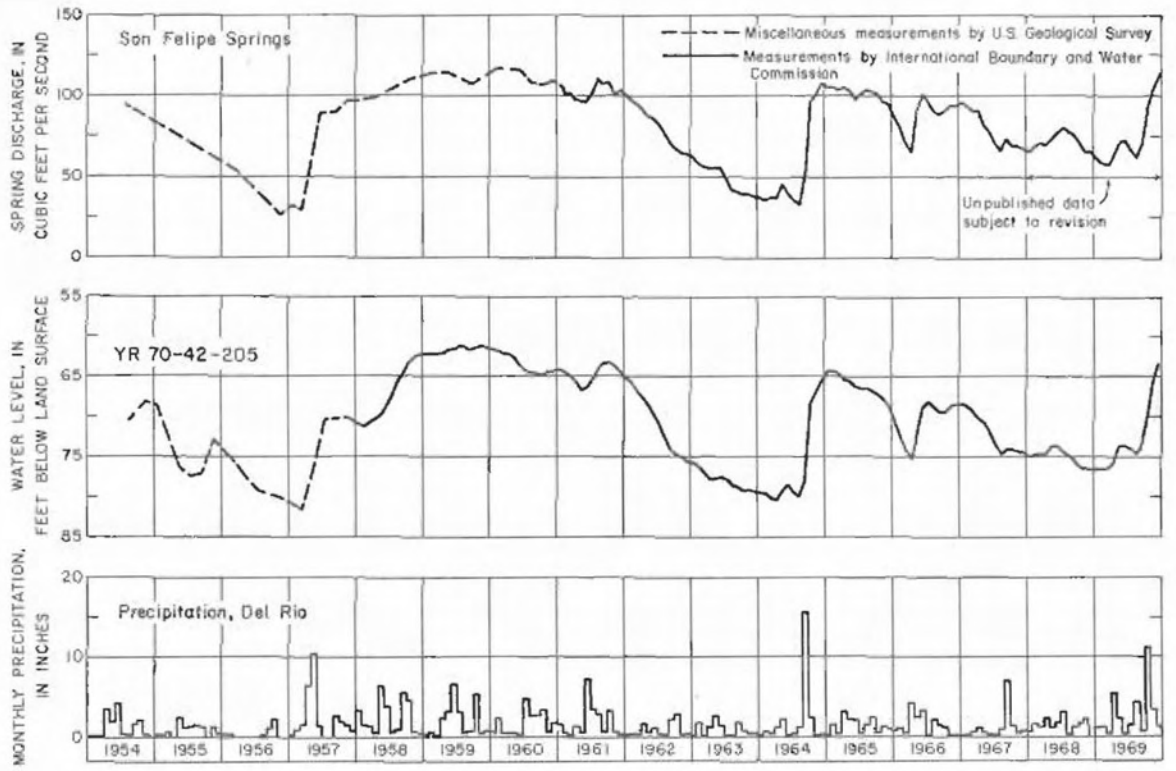


Figure 11.--Comparison of Discharge From San Felipe Springs, Water Level in Well YR-70-42-205, and Precipitation at Del Rio

periodic water-level measurements of the two formations could be made in the same well bore. Although the differences in water levels of the two formations were erratic, the altitude of the water level in the Edwards remained higher than that in the Georgetown throughout the period of record (Table 6). In general, the greatest differences occurred during the rising trend resulting from the filling of Amistad Reservoir.

Another well in this area, YR-71-40-501, had a similar difference in water levels. The water level in the Edwards was 4 to 6 feet higher than the water level in the Georgetown. The well was later plugged with cement through the Kiamichi, and the water level returned to the Georgetown level.

The quantity of water discharged by wells is very small compared to that discharged by springs and seeps. The largest of these springs are San Felipe Springs and Goodenough Springs. The flow of the springs during drought periods is sustained primarily by underflow into the county and from storage in the aquifer north and east of the springs. During wet periods, part of the discharge of the springs is from local recharge in nearby sinkholes. Much of this water, however, moves off rapidly and is discharged through springs.

The average annual discharge of San Felipe Springs from 1961 to 1967 was about 57,900 acre-feet (International Boundary and Water Commission, United States and Mexico, 1967, p. 45). The contributing area for San Felipe Springs, about 1,000 square miles, is east and northeast of Del Rio in parts of Val Verde, Kinney, and possibly Edwards Counties. Bennett and Sayre (1962, p. 81) indicate that ground water enters Val Verde County as underflow from northwest of Brackettville in Kinney County. Undoubtedly, much of this underflow is discharged at San Felipe Springs, because no springs of significance exist between San Felipe Springs and Sycamore Creek, the eastern boundary of the county.

The average annual discharge (1930-67) of Goodenough Springs, now covered by Amistad Reservoir, was about 96,000 acre-feet (International Boundary and Water Commission, United States and Mexico, 1967, p. 26). The extent of the contributing area for Goodenough Springs is unknown. It appears feasible that much or all of the sources of these springs are to the north and northeast, in a direction from which the regional ground-water movement in the aquifer is indicated by the contours on Figure 12. However, it is also possible that an unknown quantity of water may be derived from sources to the northwest and west. When

Amistad Reservoir reaches its normal stage of 150 feet over Goodenough Springs, the spring flow may be diverted to other outlets.

Relation Between Ground Water and Streamflow

Direct or storm runoff (flood flow) is water resulting from precipitation and is defined as overland flow that enters a stream. Ground water discharged from the saturated zone through seeps and springs to the stream is commonly referred to as base flow. The base flow of the Devils River and the discharge from Goodenough Springs, San Felipe Springs, Cantu Spring, Eight Mile Spring, McKee Spring, and six measured springs in Mexico are entirely from the Edwards and associated limestones.

The total base-flow contributions from the Edwards and associated limestones to the Rio Grande can be estimated for a particular period of low flow by adding the base flow of the Rio Grande at Fosters Ranch gaging station on the Terrell-Val Verde County line (Figure 18) to the measured base flow of the tributaries and springs.

During periods of low flow, the difference between the flow of the Rio Grande measured at the International Bridge between Del Rio, Texas, and Ciudad Acuna, Coahuila, Mexico, and the above summation is the base flow attributable to unmeasured springs along this reach of the river. Half of this unmeasured spring flow is assumed to enter the river from Val Verde County and half from Mexico. The base flow of the Pecos River in Val Verde County was estimated from a low-flow investigation by the U.S. Geological Survey (Spiers and Heil, 1970, 13 p.).

The discharge of the rivers and streams in Val Verde County has been measured at stream-gaging stations (Figure 18) or by seepage investigations. Streamflow hydrographs have been plotted, and the base-flow component has been identified by a graphical method where separation of base and floodflow was required. The average annual flow of the springs (base flow of the streams) for the period 1961-67 was then estimated as follows:

	THOUSANDS OF ACRE-FEET PER YEAR
Pecos River	32
Goodenough Springs	89
Devils River	240
Minor springs on the Rio Grande	2
Unmeasured springs on the Rio Grande	81
San Felipe Springs	58
	502

The sum of these flows represents the approximate average annual discharge of ground water from the Edwards and associated limestones during the period 1961-67.

Recharge from rainfall within the county (3,242 square miles) sufficient to supply the above discharge would have to be about 2.9 inches per year or 16 percent of the average annual rainfall in the county. The recharge rate seems to be high in comparison with that occurring in nearby counties where the recharge is roughly equivalent to 1 to 2 inches over the county area. The long-term average recharge for the nearby counties of Edwards, Kerr, Kinney, and Real are 1.3 (Long, 1963, p. J24), 1 (Reeves, 1969, p. 12), 1.4 (Bennett and Sayre, 1962, p. 76), and 2 inches (Long, 1958, p. 21) respectively.

It seems more likely that the ground-water recharge, equivalent to the base flow in Val Verde County, occurs in a basin roughly bounded by a line from the intersection of Lozier Canyon and the Rio Grande north-northwest to Sheffield in Pecos County, east-northeast from Sheffield to Eldorado in Schleicher County, south-southeast from Eldorado to Brackettville in Kinney County, and then back due west to Del Rio (Figure 1). The size of this basin is about 6,500 square miles or 4,160,000 acres. Ground-water recharge in an area this size required to equal the 500,000 acre-feet of base flow in Val Verde County is about 1.5 inches or 9 percent of the estimated average annual precipitation of 16 inches over the 6,500 square miles.

Use of Ground Water

Only small quantities of ground water are pumped from the aquifers in Val Verde County. Most of the water used in the county is obtained from springflow. Nearly all of the water used is from the Edwards and associated limestones.

During 1969, about 1,850 acre-feet or 1.7 mgd (million gallons per day) of ground water was pumped for all purposes. Of this amount, an estimated 1,200 acre-feet (1.1 mgd) was for domestic and livestock use.

The use of ground water for irrigation is declining in the county. In 1958, nearly 2,400 acre-feet (2.1 mgd) was used to irrigate about 2,200 acres; in 1964, nearly 2,200 acre-feet (1.9 mgd) was used to irrigate about 1,300 acres (Gillett and Janca, 1956). By 1969, only about 600 acre-feet (0.5 mgd) was used to irrigate about 300 acres.

In 1969, about 50 acre-feet (0.04 mgd) of ground water was pumped for public supply, mostly for the communities of Comstock, Langtry, and Pumpville. The city of Del Rio obtains its municipal supply from San Felipe Springs; the usage in 1969 was 6,780 acre-feet (6.0 mgd).

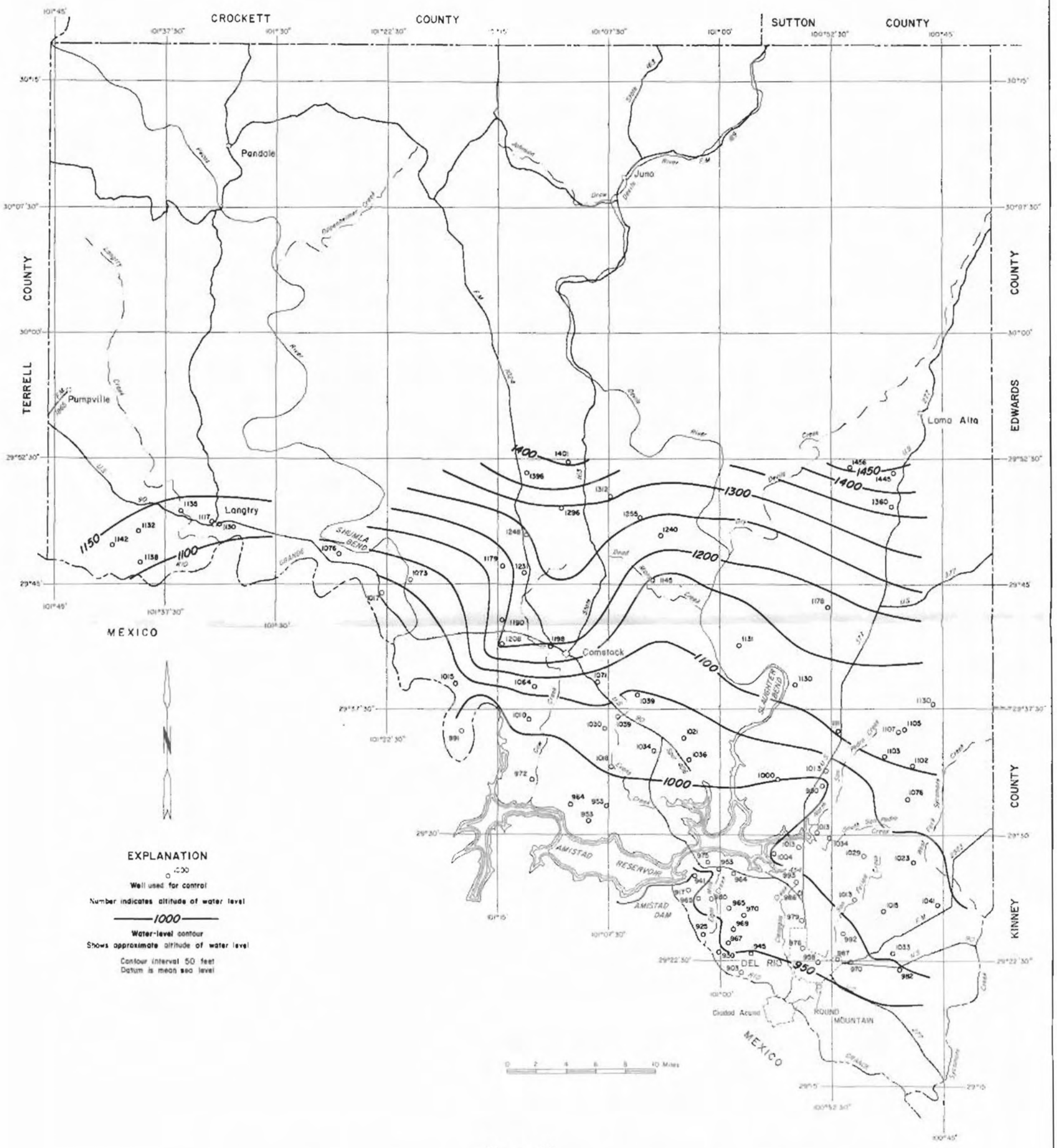


Figure 12

Approximate Altitudes of Water Levels in Wells Tapping the Edwards and Associated Limestones Near Amistad Reservoir, July 1968

Base from General Highway Map of Texas

Fluctuation of Water Levels

Water levels in wells in Val Verde County fluctuate mainly in response to the relative quantities of recharge to the aquifer and natural discharge from the aquifer. A rise in water levels indicates greater recharge than discharge and more water in storage; whereas a decline in water levels represents greater discharge than recharge and less water in storage.

Records of water levels since 1954 are available from the Texas Water Development Board for wells near Juno in the northern part of the county. Records of several intermittent water-level measurements made by the U.S. Geological Survey in three wells in the southeastern part of the county are available for two wells since 1937 and for the other since 1954. Water-level records of a large number of wells in a large area above and below Amistad Reservoir are available from the International Boundary and Water Commission since 1964. Water-level records of selected wells are shown in Table 6.

Hydrographs of representative wells tapping the Edwards and associated limestones are compared with precipitation at Del Rio on Figure 13. Wells YR-54-56-501 and YR-55-49-102 are in the northern part of the county and well YR-70-41-304 is in the southern part of the county (Figure 18). The water levels in the wells usually are highest during periods of greatest rainfall and lowest during periods of drought. These hydrographs plus the hydrograph for well YR-70-42-205 (Figure 11) show in general that water levels in the aquifer were a few feet lower in late 1969 than they were during the wet years of 1958 and 1959. However, the hydrographs show very little net change in water levels throughout the period of record.

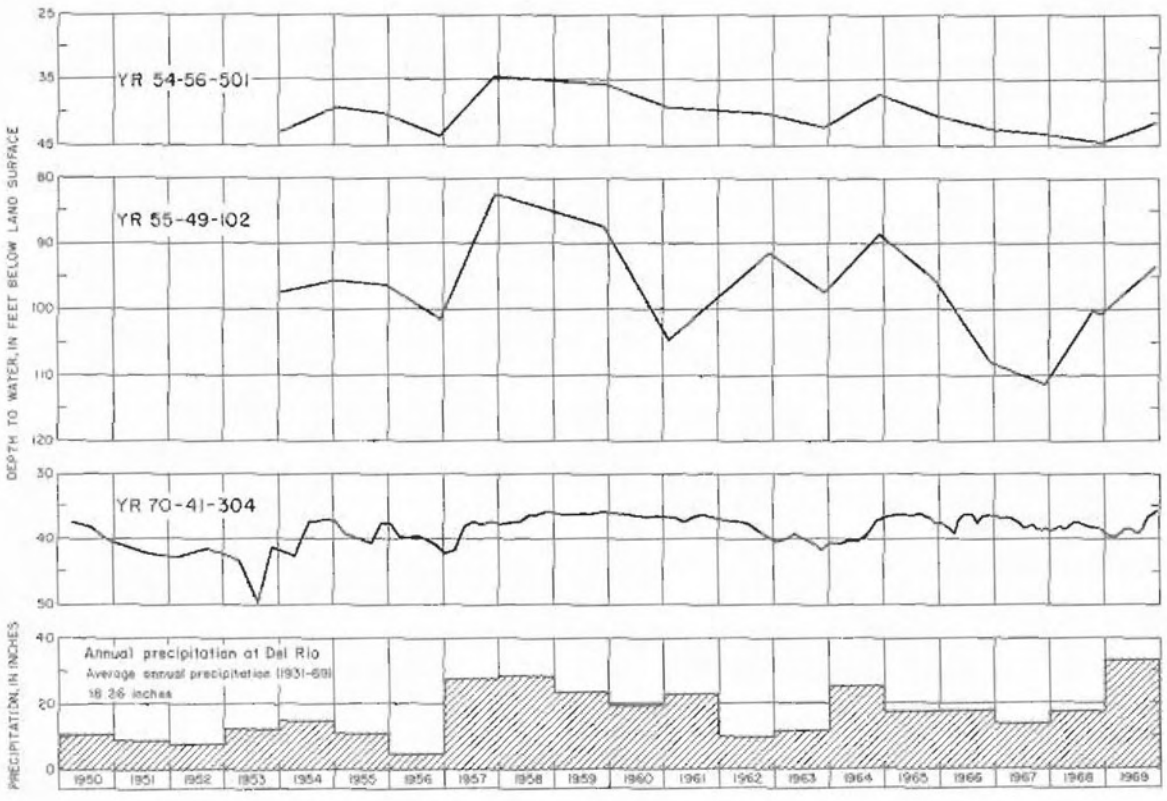


Figure 13.—Water Levels in Wells Tapping the Edwards and Associated Limestones and Annual Precipitation at Del Rio

Records of water-level fluctuations in wells tapping the alluvium, Buda Limestone, and Glen Rose Limestone are too meager for comparative purposes. The greatest fluctuation of water levels in the county occurred in the vicinity of Amistad Reservoir.

Impoundment of water in Amistad Reservoir began in July 1968, and water levels in wells tapping the Edwards and associated limestones near the reservoir began to rise almost immediately. Figure 12 shows the altitude of water levels in wells in the area prior to the

start of impoundment, and Figure 14 shows the altitude of water levels in the same wells about one year later. Figure 15 shows the net changes of water level in wells near the reservoir from about July 1968 to about July 1969. Water levels in wells nearest the reservoir have risen more than 100 feet, and levels in wells farther away have risen proportionately less. The decrease in rate of rise of water levels in the observation wells after four months (Figure 16) probably is due largely to the slower rise in reservoir stage that occurred when the surface of the reservoir spread out above the relatively narrow stream channel of the Rio Grande and the Devils River.

The areal extent of affected water levels in wells due to impoundment behind Amistad Dam probably will continue to spread until a relatively stable gradient of ground-water flow toward the lake is established. This will happen some time after a stabilized lake level has been effected. The extent to which a stable lake influences aquifer head may become significant to future ground-water development. Water levels in existing wells in many areas will be higher; and although new wells may have to be drilled to similar depths, the aquifer head available for drawdown will be greater.

As the aquifer head in the vicinity of the reservoir rises, new spring outlets at higher elevations probably will result. The flow of many of these springs will remain within the watershed of the reservoir; however, it is possible that new spring outlets may result in areas outside the reservoir watershed, in which case the ground-water contributions to the reservoir area will be decreased. The discharge of these new springs undoubtedly will enter the river downstream from the dam, and the overall ground-water contributions to the Rio Grande in Val Verde County will not be changed significantly.

Yields of Wells

Yields of wells in Val Verde County range from a few gallons per minute to more than 1,000 gpm. This results from the variability of the capacity of the fissure-type openings to yield and store water. A well bore may intersect large openings along fissures below the water table, and usually the drawdown in a pumped well tapping those openings is small and water-level recovery rapid after pumping stops. Another well bore may intersect relatively small openings in the rock, and even a windmill that pumps only 2 to 3 gallons per minute may draw the water level down a substantial amount in a short time. Return to static level after pumping stops may take many hours. Most of the wells inventoried in the county were pumped by windmills; nevertheless, the drawdown in many of these wells is large compared to the low rate of pumping. The yields and specific capacities for some of the large-capacity wells in the county are given in the following table:

WELL NUMBER	YIELD (GPM)	SPECIFIC CAPACITY (GPM PER FT)	HOURS PUMPED
YR-70-33-101	150	7.4	7
201	205	1.0	2¼
502	300	34.5	1½
602	300	10.0	3
903	2,010	18.4	4
42-205	330	24.5	48
208	350	4.4	48
209	475	12.8	48
71-40-302	210	2.5	25
303	172	.8	8

The specific capacity of a well is the ratio of the discharge (gpm) to the drawdown (feet) of water level during a given time interval. It varies with the transmissivity of the aquifer and gives a general index of the capability of the aquifer to yield water. It is not a constant because it gradually decreases with length of pumping time.

The specific capacity of wells in aquifers having large openings may also decrease with increasing discharge because of turbulent flow in the aquifer near the well. Various factors, such as well construction, development, and the size of the well also affect the specific capacity. Properly constructed wells, which have minimal friction losses in the well bore, have higher specific capacities than improperly constructed wells, other factors being equal.

The specific capacities for the wells listed in the foregoing table range from less than 1 to more than 30, which is not unusual for wells tapping a limestone aquifer. Well YR-70-30-601 was pumped during a test at 314 gpm with no measurable drawdown. The drawdown in well YR-71-23-502 was for all practical purposes unmeasurable while the well was pumping 163 gpm.

Well Construction

Most of the wells in Val Verde County are drilled entirely in limestone and, because there is little or no danger of caving, most are not cased. Commonly, 3 to 10 feet of 6- to 8-inch diameter casing is set at the surface to prevent undesirable seepage from the surface or to keep rocks from entering the hole. The wells that penetrate the Del Rio Clay or one of the overlying formations may have casing set through the clay to prevent caving, which occurs in uncased wells especially during the infrequent periods of heavy rainfall. In many of these wells, however, only the top few feet are cased. Most wells are pumped by windmills or small-capacity pumps.

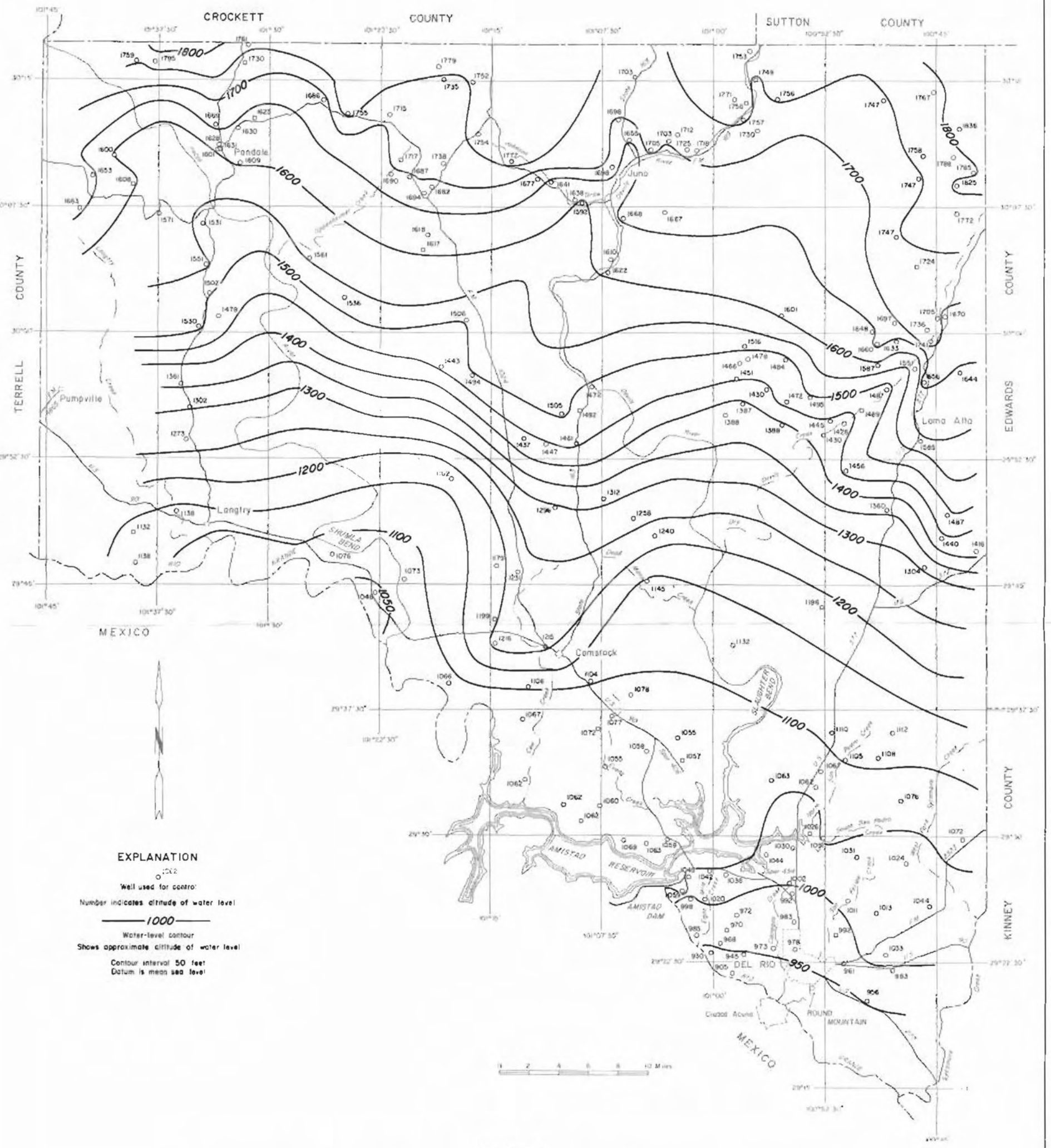


Figure 14

Approximate Altitudes of Water Levels in Wells Tapping the Edwards and Associated Limestones Near Amistad Reservoir, July 1969

Base from General Highway Map of Texas

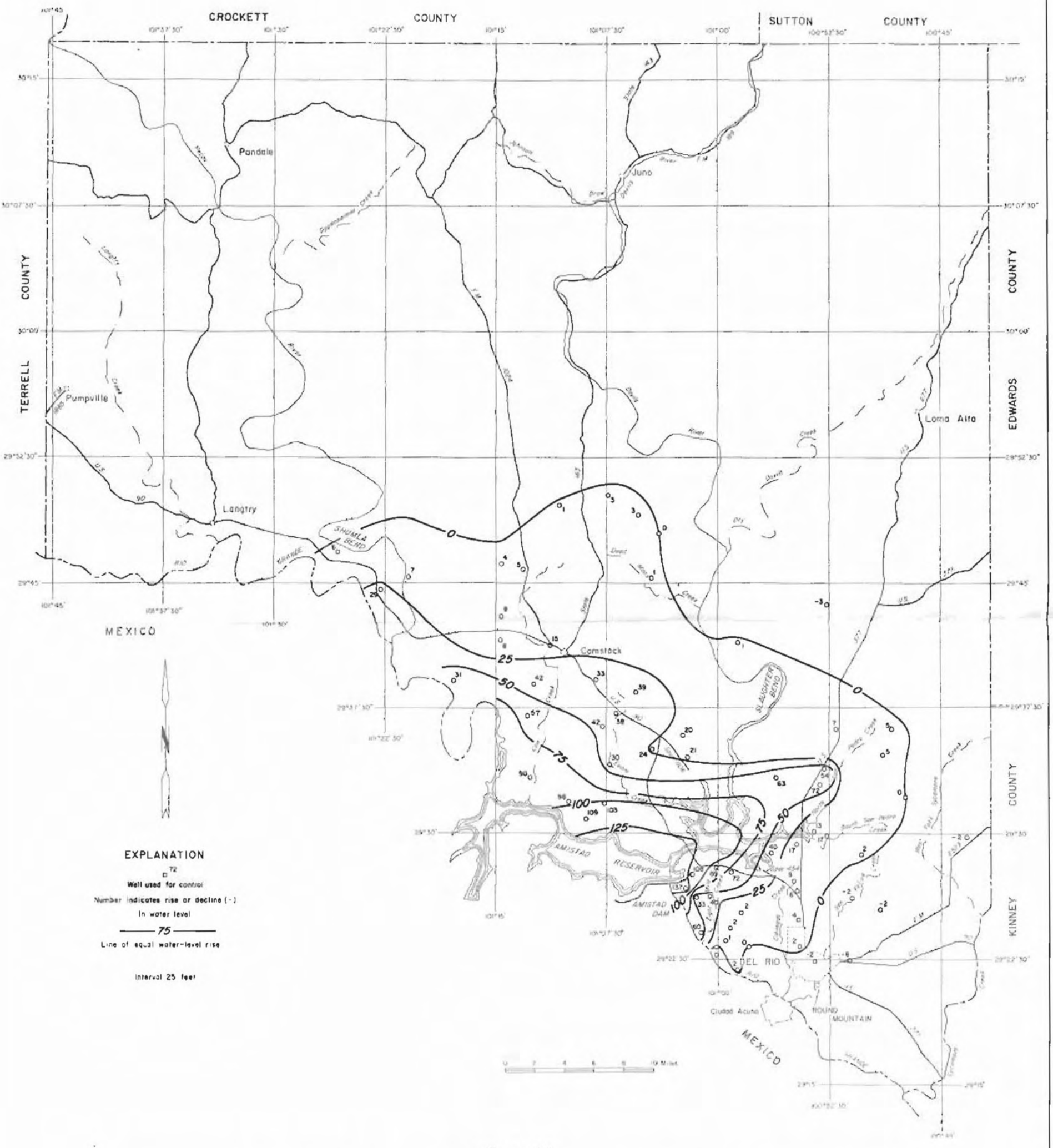


Figure 15

Approximote Net Changes of Water Levels in Wells Tapping the Edwards and Associated Limestones Due to Water Impoundment in Amistad Reservoir From July 1968 to July 1969

Base from General Highway Map of Texas

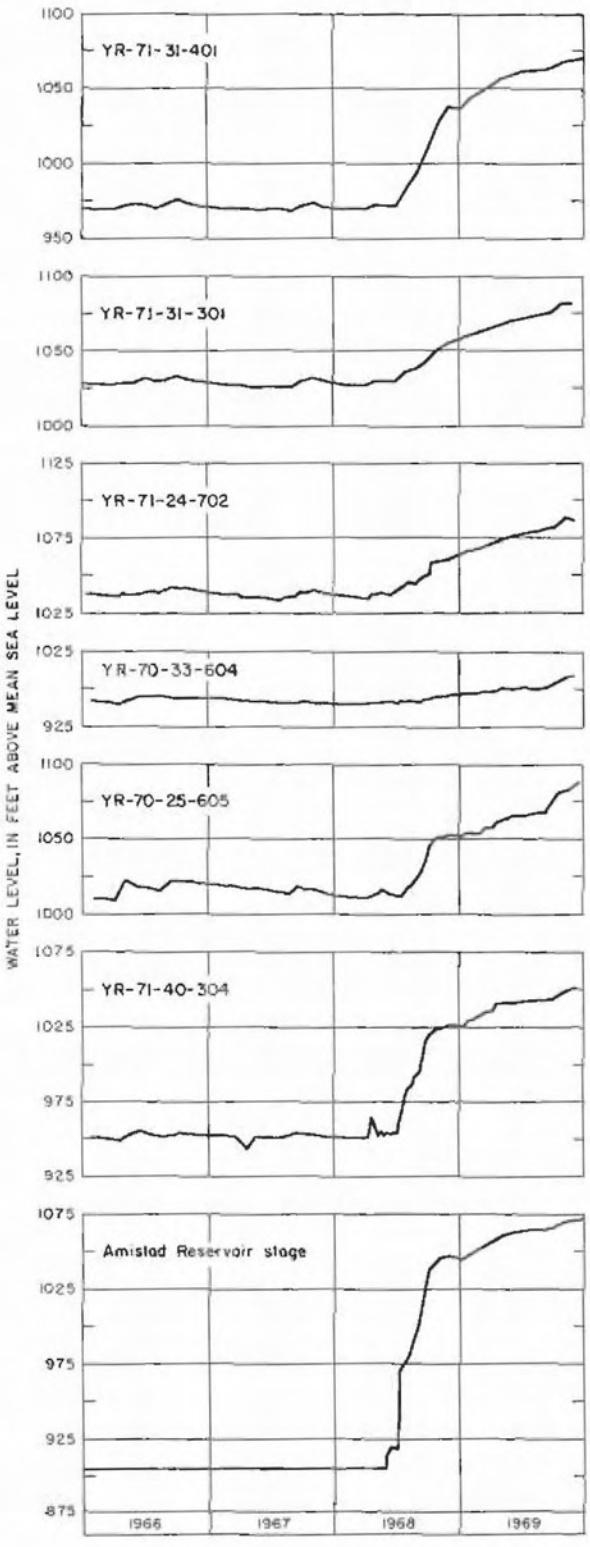


Figure 16.—Comparison of the Altitude of the Water Surface of Amistad Reservoir and the Altitude of Water Levels in Nearby Wells, 1966-69

A few large-capacity wells, principally for municipal supply or irrigation, are constructed in a manner similar to the domestic wells, except that larger casing is set. The casing is usually set entirely through the weathered zone, but a slotted liner may be used to protect against caving at depth. The wells are equipped with turbine pumps powered by butane-gas engines.

Hydrochloric acid is frequently used to increase the yield of wells completed in limestone or calcareous sandstone aquifers. The acid dissolves calcium carbonate which clogs the pores or the fissures in the rocks, thereby increasing the effective diameter of the well and reducing the drawdown. This type of well development commonly significantly increases the yield of a well. Well YR-70-33-903 was acidized with 10,000 gallons of 15 percent hydrochloric acid. This resulted in an increase in the specific capacity from 23 gpm per foot of drawdown to 69 gpm per foot of drawdown; the well was pumped at about 200 gpm. Later the well pumped more than 300 gpm with no appreciable drawdown.

QUALITY OF GROUND WATER

Chemical Quality of Ground Water

The dissolved minerals in ground water are derived from the rocks and soil through which the water passes. Precipitation is normally relatively free of mineral content; as water makes its way through soil, it picks up minerals and becomes charged with additional carbon dioxide, which greatly increases its capacity to dissolve minerals in the rocks. Therefore, the chemical character of the water reflects generally the mineral composition of the soil and rocks through which the water moves. Water temperature and the duration of time that the water is in contact with the rocks also affect the degree of mineralization of the water.

The chemical analyses of 310 water samples from 207 wells and 17 springs are given in Table 7. The dissolved-solids, sulfate, and chloride content of the water from wells and springs are shown on Figure 17. A line above a well or spring number on Figure 18 indicates that a chemical analysis is given in Table 7.

The approximate boundary between fresh and slightly saline water in the Georgetown Limestone in the southern part of the county is shown by a line on Figure 17. The down-dip limit of occurrence of fresh water in the Edwards Limestone is not known, but it is believed to be north of this line. The increase in dissolved solids south of the line probably results from poor circulation of ground water.

The suitability of any water supply depends upon its intended use and various standards of water quality have been developed for most categories of water use. Water-quality problems involving bacterial content and physical characteristics frequently can be handled economically; however, the removal of certain undesirable minerals may be difficult and expensive.

Table 3.—Source and Significance of Dissolved-Mineral Constituents and Properties of Water

CONSTITUENT OR PROPERTY	SOURCE OR CAUSE	SIGNIFICANCE
Silica (SiO_2)	Dissolved from practically all rocks and soils, commonly less than 30 mg/l. High concentrations, as much as 100 mg/l, generally occur in highly alkaline waters.	Forms hard scale in pipes and boilers. Carried over in steam of high pressure boilers to form deposits on blades of turbines. Inhibits deterioration of zeolite-type water softeners.
Iron (Fe)	Dissolved from practically all rocks and soils. May also be derived from iron pipes, pumps, and other equipment. More than 1 or 2 mg/l of iron in surface waters generally indicates acid wastes from mine drainage or other sources.	On exposure to air, iron in ground water oxidizes to reddish-brown precipitate. More than about 0.3 mg/l stains laundry and utensils reddish-brown. Objectionable for food processing, textile processing, beverages, ice manufacture, brewing, and other processes. U.S. Public Health Service (1962) drinking-water standards state that iron should not exceed 0.3 mg/l. Larger quantities cause unpleasant taste and favor growth of iron bacteria.
Calcium (Ca) and magnesium (Mg)	Dissolved from practically all soils and rocks, but especially from limestone, dolomite, and gypsum. Calcium and magnesium are found in large quantities in some brines. Magnesium is present in large quantities in sea water.	Cause most of the hardness and scale-forming properties of water; soap consuming (see hardness). Waters low in calcium and magnesium desired in electroplating, tanning, dyeing, and in textile manufacturing.
Sodium (Na) and potassium (K)	Dissolved from practically all rocks and soils. Found also in ancient brines, sea water, industrial brines, and sewage.	Large amounts, in combination with chloride, give a salty taste. Moderate quantities have little effect on the usefulness of water for most purposes. Sodium salts may cause foaming in steam boilers and a high sodium content may limit the use of water for irrigation.
Bicarbonate (HCO_3) and carbonate (CO_3)	Action of carbon dioxide in water on carbonate rocks such as limestone and dolomite.	Bicarbonate and carbonate produce alkalinity. Bicarbonates of calcium and magnesium decompose in steam boilers and hot water facilities to form scale and release corrosive carbon dioxide gas. In combination with calcium and magnesium, cause carbonate hardness.
Sulfate (SO_4)	Dissolved from rocks and soils containing gypsum, iron sulfides, and other sulfur compounds. Commonly present in mine waters and in some industrial wastes.	Sulfate in water containing calcium forms hard scale in steam boilers. In large amounts, sulfate in combination with other ions gives bitter taste to water. Some calcium sulfate is considered beneficial in the brewing process. U.S. Public Health Service (1962) drinking-water standards recommend that the sulfate content should not exceed 250 mg/l.
Chloride (Cl)	Dissolved from rocks and soils. Present in sewage and found in large amounts in ancient brines, sea water, and industrial brines.	In large amounts in combination with sodium, gives salty taste to drinking water. In large quantities, increases the corrosiveness of water. U.S. Public Health Service (1962) drinking-water standards recommend that the chloride content should not exceed 250 mg/l.
Fluoride (F)	Dissolved in small to minute quantities from most rocks and soils. Added to many waters by fluoridation of municipal supplies.	Fluoride in drinking water reduces the incidence of tooth decay when the water is consumed during the period of enamel calcification. However, it may cause mottling of the teeth, depending on the concentration of fluoride, the age of the child, amount of drinking water consumed, and susceptibility of the individual. (Maier, 1950)
Nitrate (NO_3)	Decaying organic matter, sewage, fertilizers, and nitrates in soil.	Concentration much greater than the local average may suggest pollution. U.S. Public Health Service (1962) drinking-water standards suggest a limit of 45 mg/l. Waters of high nitrate content have been reported to be the cause of methemoglobinemia (an often fatal disease in infants) and therefore should not be used in infant feeding. Nitrate has been shown to be helpful in reducing inter-crystalline cracking of boiler steel. It encourages growth of algae and other organisms which produce undesirable tastes and odors.
Dissolved solids	Chiefly mineral constituents dissolved from rocks and soils. Includes some water of crystallization.	U.S. Public Health Service (1962) drinking-water standards recommend that waters containing more than 500 mg/l dissolved solids not be used if other less mineralized supplies are available. Waters containing more than 1000 mg/l dissolved solids are unsuitable for many purposes.
Hardness as $CaCO_3$	In most waters nearly all the hardness is due to calcium and magnesium. All the metallic cations other than the alkali metals also cause hardness.	Consumes soap before a lather will form. Deposits soap curd on bathtubs. Hard water forms scale in boilers, water heaters, and pipes. Hardness equivalent to the bicarbonate and carbonate is called carbonate hardness. Any hardness in excess of this is called non-carbonate hardness. Waters of hardness as much as 60 ppm are considered soft; 61 to 120 mg/l, moderately hard; 121 to 180 mg/l, hard; more than 180 mg/l, very hard.
Specific conductance (micromhos at 25°C)	Mineral content of the water.	Indicates degree of mineralization. Specific conductance is a measure of the capacity of the water to conduct an electric current. Varies with concentration and degree of ionization of the constituents.
Hydrogen ion concentration (pH)	Acids, acid-generating salts, and free carbon dioxide lower the pH. Carbonates, bicarbonates, hydroxides, and phosphates, silicates, and borates raise the pH.	A pH of 7.0 indicates neutrality of a solution. Values higher than 7.0 denote increasing alkalinity; values lower than 7.0 indicate increasing acidity. pH is a measure of the activity of the hydrogen ions. Corrosiveness of water generally increases with decreasing pH. However, excessively alkaline waters may also attack metals.

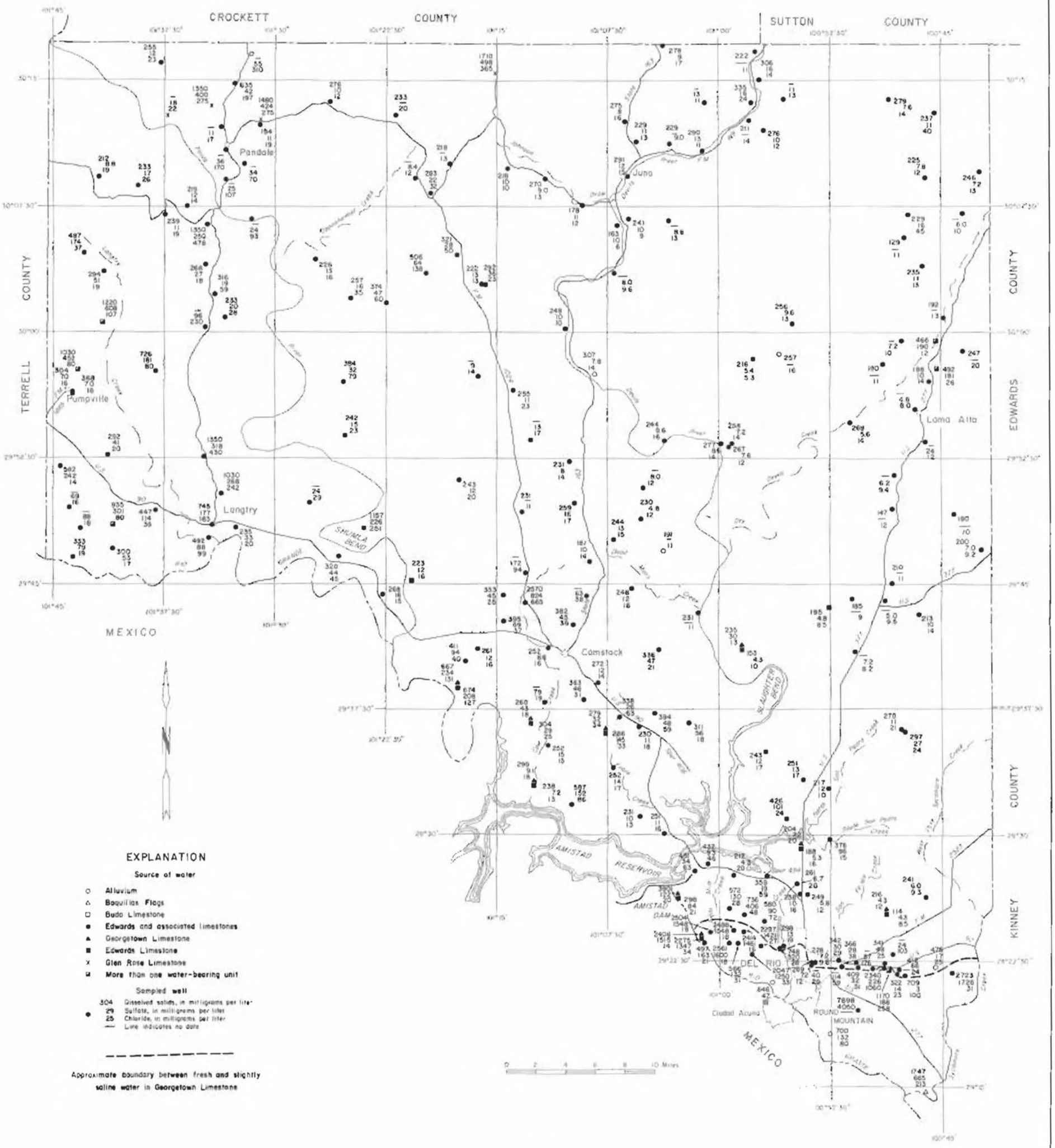


Figure 17

Chemical Quality of Ground Water

Base from General Highway Map of Texas

For many purposes, the dissolved-solids content places a major limitation on the use of water. A general classification of water, based on dissolved-solids content is as follows (Winslow and Kister, 1956, p. 5):

CLASSIFICATION	DISSOLVED-SOLIDS CONTENT (MILLIGRAMS PER LITER) 1/
Fresh	Less than 1,000
Slightly saline	1,000 to 3,000
Moderately saline	3,000 to 10,000
Very saline	10,000 to 35,000
Brine	More than 35,000

1/ Milligrams per liter (mg/l) is considered equivalent to parts per million (ppm) for water containing less than 7,000 mg/l dissolved solids.

The U.S. Public Health Service establishes standards to control the quality of drinking water to be used on common carriers engaged in interstate commerce. The standards are designed to protect the traveling public and are commonly used to evaluate public water supplies. According to these standards, chemical constituents should not be present in a water supply in excess of the listed concentrations except where other more suitable supplies are not available. Some of the standards adopted by the U.S. Public Health Service (1962, p. 7-8) are as follows:

SUBSTANCE	CONCENTRATION (MILLIGRAMS PER LITER)
Chloride (Cl)	250
Fluoride (F)	.8 *
Iron (Fe)	.3
Manganese (Mn)	.05
Nitrate (NO_3)	45
Sulfate (SO_4)	250
Dissolved solids	500

*Upper limit for Val Verde County based on a 39-year average annual maximum daily air temperature of 80.4°F at Del Rio. The optimum concentration is 0.7 mg/l.

Table 3 shows the source and significance of the major dissolved-mineral constituents and other properties of natural waters (Doll and others, 1963).

Water having a chloride content exceeding 250 mg/l may have a salty taste. The chloride content exceeded 250 mg/l in samples from 11 wells of a total number of 309 samples taken from 223 wells and springs. Water with a high chloride content was primarily obtained from wells in the western part of the county. Such water is not characteristic of any one part of the county or of any one aquifer; but in general, samples from wells tapping the Glen Rose Limestone and the Edwards and associated limestones in the western part of the county had the highest concentration of chloride.

The upper limit of fluoride concentration for a given community depends on climatic conditions because the amount of water (and consequently the amount of fluoride) consumed is influenced principally by air temperature. The presence of fluoride in water in Val Verde County in average concentrations greater than 1.4 mg/l would constitute grounds for rejection of the supply (U.S. Public Health Service, 1962, p. 8).

A fluoride concentration of 0.7 mg/l in drinking water may reduce the incidence of tooth decay, especially in children, when the water is used during the period of enamel calcification. However, fluoride in excessive concentrations may cause mottling of the teeth (Maier, 1950, p. 1120-1132). The fluoride content in samples collected from 122 wells and springs in the county ranged from 0.1 to 6.2 mg/l. It exceeded 0.7 mg/l in 50 wells and 1.4 mg/l in 32 wells. High fluoride content is found primarily in samples from wells tapping the Edwards and associated limestones and the Glen Rose Limestone in the western part of the county.

The use of water containing iron in excess of 0.3 mg/l and manganese in excess of 0.05 mg/l may cause reddish-brown or dark gray stains on clothes, plumbing fixtures, and utensils. In 30 samples (three from the same well), the iron content ranged from 0 to 12 mg/l and exceeded 0.3 mg/l in 12 wells. The samples having a high iron content were from wells tapping the Glen Rose Limestone and Edwards and associated limestones in the northern and western parts of the county; however, near Amistad Dam, the iron content locally exceeds 0.3 mg/l. High iron concentrations usually can be reduced by aeration and filtration. Only one of three analyses for manganese showed a concentration greater than 0.05 mg/l, the standard of the U.S. Public Health Service, and it was 0.23 mg/l.

Concentrations of nitrate in excess of 45 mg/l in water used for infant feeding have been related to the incidence of infant cyanosis (methemoglobinemia or "blue baby" disease), a reduction of the oxygen content in the blood constituting a form of asphyxia (Maxcy, 1950, p. 271). High concentrations of nitrate may be an indication of pollution from organic matter. The nitrate content in 233 determinations from 191 wells and springs exceeded 45 mg/l in only one well. The highest nitrate concentration was 58 mg/l from well YR-70-50-301, completed in the Boquillas Flags, and the next highest concentration (41 mg/l) was from well YR-70-41-601, completed in alluvium.

Water containing sulfate in excess of 250 mg/l may produce a laxative effect. The sulfate, as determined in 307 samples, ranged from 3 to 4,050 mg/l. Of the 221 determinations tabulated in Table 7 (not more than one per well), the sulfate exceeded the established limit of

250 mg/l in 24 wells. Nearly all of the samples from wells tapping the Glen Rose Limestone contained sulfate in excess of 250 mg/l. Most of the samples from the Edwards and associated limestones containing more than 250 mg/l of sulfate were from wells south of the dashed line on Figure 17.

The dissolved-solids content of 251 water samples ranged from 114 to 7,898 mg/l. Of the 198 determinations tabulated in Table 7 (not more than one per well or spring), the dissolved-solids content was less than 500 mg/l in 160 samples, between 500 and 1,000 mg/l in 16 samples, and more than 1,000 mg/l in 22 samples.

Calcium and magnesium are the principal dissolved constituents that cause hardness of water in Val Verde County. Hard water increases soap consumption and forms scale in hot water heaters, water pipes, and teakettles. Commonly accepted standards and classifications of water hardness are shown in the following table:

HARDNESS RANGE		
MILLIGRAMS PER LITER	GRAINS PER GALLON	CLASSIFICATION
60 or less	3.5 or less	Soft
61 to 120	3.6 to 7.0	Moderately hard
121 to 180	7.1 to 10.5	Hard
More than 180	More than 10.5	Very hard

The water in Val Verde County is generally very hard. The hardness indicated by analyses of 297 samples ranged from 91 to 1,942 mg/l and was less than 180 mg/l in only 23 of the samples from 220 wells and springs tabulated in Table 7.

The quality of ground water from the Edwards and associated limestones is generally satisfactory for irrigation in Val Verde County. Water unsuitable for irrigation, as defined by the classification of the U.S. Salinity Laboratory (1954, p. 69-82), was obtained from one well, YR-70-42-401, in the southeastern part of the county. This classification is based primarily on the salinity hazard as measured by the specific conductance of the water and on the sodium hazard as measured by the SAR (sodium adsorption ratio). The specific conductance was 8,780 micromhos per centimeter, and the SAR was 18.

Wilcox (1955) reported that water generally may be used for supplementary irrigation if the specific conductance of the water is less than 2,250 micromhos per centimeter at 25°C and its SAR is less than 14. The specific conductance of 218 samples of water from 167 wells and springs in the Edwards and associated limestones ranged from 224 to 8,780 micromhos per centimeter, exceeding 2,250 in samples from only 13 wells.

The SAR was more than 14 in only one sample (well YR-70-42-401), which also had the highest specific conductance. The specific conductance of samples from four wells penetrating the Glen Rose Limestone ranged from 536 to 2,750 micromhos per centimeter. The SAR of three of the samples ranged from 9.9 to 10.

The RSC (residual sodium carbonate) is also used to assess the quality of water for irrigation. Excessive RSC will cause the water to be alkaline, and the organic material in the soil will tend to dissolve. The soil may become a grayish-black, and the land areas affected are referred to as "black alkali." Wilcox (1955, p. 11) states that laboratory and field studies have resulted in the conclusion that water containing more than 2.5 me/l (milliequivalents per liter) RSC is not suitable for irrigation. Water containing from 1.25 to 2.5 me/l is marginal, and water containing less than 1.25 me/l RSC probably is suitable. However, the successful use of marginal water for irrigation might be made possible by proper irrigation practices and use of soil amendments. Furthermore, the degree of leaching will modify the permissible limit to some extent (Wilcox and others, 1954, p. 265).

The RSC in 107 samples ranged from 0.00 to 1.43 me/l. In the samples from 103 wells and springs, the RSC was 0.00 me/l. The two samples having an RSC value were from wells tapping the Glen Rose Limestone (0.43 and 1.43 me/l).

Water is not suitable for irrigation if it has an excessive boron content. Wilcox (1955, p. 11) indicates that the maximum permissible boron concentration for irrigating sensitive crops is 1.0 mg/l, for semitolerant crops 2.0 mg/l, and for tolerant crops 3.0 mg/l. Boron concentrations are not a problem in Val Verde County. All 23 samples which were analyzed for boron showed concentrations of less than 0.5 mg/l.

Another factor used in assessing the suitability of water for drinking purposes is the presence of pesticides. During the investigation, water samples collected from three wells (YR-70-41-203, YR-71-03-301, and YR-71-23-101) and one spring (YR-40-41-301) were analyzed for pesticides (nine insecticides and three herbicides). The concentrations of all pesticides were less than 0.005 µg/l, (micrograms per liter) in the water samples collected from the wells and were not tabulated. The sample collected from the spring contained 0.01 µg/l of DDT [1, 1, 1-trichloro-2, 2-bis (p-chlorophenyl) ethane]. However, the concentration of DDT in a second water sample collected from the spring was less than 0.005 µg/l, which is the lowest detectable concentration of pesticides. Concentrations of pesticides permissible in public water supplies, adapted from Water quality criteria—report of the National Technical Advisory Committee to the Secretary of the Interior:

Federal Water Pollution Control Administration, 1968—are given in the following table:

INSECTICIDE (MICROGRAMS/LITER)		HERBICIDE (MICROGRAMS/LITER)	
Aldrin	17	2, 4-D plus	
DDT	42	2, 4, 5-T plus	100
Dieldrin	17	Silvex	
Endrin	1		
Heptachlor	18		
Heptachlor epoxide	18		
Lindane	56		

Changes in Quality of Ground Water

No pollution of ground water from salt-water disposal pits or from inadequately cased oil or gas wells in Val Verde County was observed or reported during this study. Very little oilfield brine has been produced in conjunction with oil in Val Verde County.

Crude oil production in 1968 was 20,843 barrels, and accumulative recorded production through 1968 was 35,385 barrels. The amount of brine produced in conjunction with the crude oil was small, and there is probably no immediate danger to the ground-water supply from salt-water disposal.

According to salt-water disposal inventory (Texas Water Commission and Texas Water Pollution Control Board, 1963), 730 barrels, or about 0.1 acre-foot, of salt water was produced from one well in the Vinegarone Field (Figure 18) in the extreme northeast part of the county. The salt water was disposed of in an open pit. In 1968, according to the files of the Railroad Commission, about 8,900 barrels or 1.1 acre-feet of salt water was disposed of in open pits.

Although the Texas Railroad Commission issued a "no-pit" order effective January 1, 1969, the disposal of salt water into surface pits is still permitted in Val Verde County. Exceptions to this rule are occasionally granted to operators in areas where, in the Commission's opinion, the possibility of salt water contaminating ground water or surface water is negligible because of impermeable surface rocks or very little salt-water production.

In recent years, the Texas Water Development Board has made recommendations to oil and gas operators of the depths to which water-bearing formations are to be protected; and the Oil and Gas Division of the Railroad Commission of Texas is responsible for the protection of water-bearing formations. Although the amount of casing required for oil and gas wells in the Vinegarone Field is not specified by the Railroad Commission, the surface casing of the wells is adequate to protect the fresh water in the field. In general, the wells are cased and cemented to a depth of about 20 feet below the base of the Cretaceous rocks.

The disposal of salt water into unlined surface pits is a possible source of pollution of the ground water because the Edwards and associated limestones underly the surface in most of the county. However, unless large-scale production of oil and salt water, coupled with poor salt-water disposal practices, takes place within the county or in the recharge area north and northeast of Val Verde County, there is little danger of widespread ground-water pollution in the county due to oil production activities. In the event that large-scale oil and brine production does develop in the areas mentioned, a systematic sampling for chemical analysis of ground water from wells located on the periphery of the disposal areas will aid in detecting and locating any widespread pollution.

Some evidence of pollution of ground water by salt water exists in the vicinity of Pandale (Figure 17). A comparison of the chemical analyses of water samples collected from wells YR-54-52-503 and YR-54-52-601 and springs YR-54-52-801 and YR-54-60-302 in this area shows an increase in chloride content from the 1939 samples to the 1968-69 samples (Table 7). The chloride content of the samples from well YR-54-52-201 decreased from 400 mg/l in 1961 to 256 mg/l in 1968, and to 197 mg/l in 1969, indicating that perhaps salt water pollution in the late 1950's and early 1960's was of greater intensity than it is today.

This pollution probably spread as underflow from Crockett County where, according to Iglehart (1967, p. 40), the salt water produced with oil usually was stored in unlined surface pits in the early days of oil production. However, in some instances, the salt water was discharged into ephemeral creeks, into open crevices, or into sinkholes in the outcrop of the Edwards and associated limestones. Salt-water disposal by any of these methods in limestone terrain is almost certain to reach the ground-water body either by direct infiltration along faults, fissures, or joints in areas where sinkholes or crevices in the limestone exist, or by infiltration of the overflow from the pits during periods of intense rainfall.

The slightly saline water in wells YR-54-60-201, YR-71-04-801, YR-71-12-201, and YR-71-13-601, which tap the Edwards and associated limestones near the Pecos River, is probably the result of local recharge of slightly saline water from the river. Although an overall gain in base flow of the river in Val Verde County was evident during the low-flow investigation by Spiers and Hejl (1970, p. 12), some of the losses in base flow between individual measuring sites are believed to be caused by diversion of water along solution-widened fractures to wells near the river.

One well was apparently polluted by infiltration of highly-mineralized water from an unknown source. The owner of well YR-71-23-101 reported that the quality of water in the well had deteriorated in June 1968. The sulfate and chloride content of a water sample collected from the well in August 1968 was 824 and 665 mg/l, respectively. The sulfate and chloride content in a water sample from the same well had decreased to 355 and 185 mg/l by August 1969, indicating that the mineralized water probably was being diluted and moving down dip.

AVAILABILITY OF GROUND WATER FOR FUTURE DEVELOPMENT

The ground-water resources of Val Verde County are relatively undeveloped. The availability of water for future development depends on recharge and the capacity of the aquifer to transmit and store water. The aquifer properties will not change with time, but the recharge will vary with the amount of rainfall and the stage of Amistad Reservoir.

Whether or not the pre-Cretaceous rocks and the Glen Rose Limestone have much water suitable for development is unknown. In some areas, the quality of water in these aquifers is poor, and the transmissive and storage properties are not favorable for extensive or large-scale development. However, too little is known about them to adequately evaluate their future potential. Except in those areas where no other water is available, little exploration in these aquifers is expected in Val Verde County. The development of Amistad Reservoir will insure adequate surface water and relatively shallow ground-water supplies to a large area in southern Val Verde County, and few developers will be looking to deeper aquifers for future supplies.

The Edwards and associated limestones are the principal aquifer in the county. The limestones are capable of furnishing much larger quantities of water than are being withdrawn at the present (1969). The basic problem will be finding specific sites favorable for development of large-capacity wells. Prior to the impoundment of water behind Amistad Dam (July 1968) base-flow records of the Rio Grande and the Pecos and Devils Rivers and the discharge records of Goodenough and San Felipe Springs indicated that approximately 500,000 acre-feet of water per year had been naturally discharged. Therefore, this amount of water could be developed from the Edwards and associated limestones with little net change in the water level. A substantial increase in ground-water usage, however, would result in a decrease in springflow.

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Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties

All wells are drilled unless otherwise notes in remarks column.

Water level : Reported water levels are given in feet; measured water levels are given in feet and tenths.
Method of lift and type of power : C, centrifugal; E, electric; G. gasoline, butane, or diesel engine; N. none; P, piston; S, submersible; T. turbine; W, windmill. Number indicates horsepower.
Use of water : D, domestic; Ind. industrial; Irr. irrigation; P. public supply; S, livestock; U, unused.
Water-bearing unit : KQ, Pleistocene, and Holocene alluvial deposits; Kbo, Boquillas Flags; Kbu, Buda Limestone; Kea, Edwards and associated limestone; Kgr. Glenn Rose Limestone; Ke. Ellenburger Group.

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COM-PLET-ED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEAR-ING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
					Val Verde County							
YR-54-43-801	Humble Oil & Refg. Co. J.B. Maline Well 1	Humble Oil & Refg. Co.	1959	6,108	--	--	2,332	--	--	--	--	Oil test. 1
* 901	C. Malone	A.S. Gray	1929	500	6	Kea	2,220	424.6	Oct. 1968	P,W	D,S	Cased to 5 ft. Measured drawdown 14.2 ft after 10 hours pumping 1 1/2 gpm.
902	do.	G. Chrystal	1931	--	6	Kgr	2,000	241.2	do.	P,W	S	Measured drawdown 7.5 ft after 1/2 hour pumping 2 gpm. Reported "gypy" water.
44-701	Skelly Oil Co. G.L. Bunger Well 1	Skelly Oil Co.	1967	15,494	--	--	2,224	--	--	--	--	Oil test. 1
801	T. Mitchell	H. Gray	1933	650	6	Kea	2,200	550	Sept. 1968	P,W	D	Reported discharge 8 gpm.
802	Shell Oil Co. 46 Unit Well 1	Shell Oil Co.	1967	14,663	--	--	1,816	--	--	--	--	Oil test. 1
901	T. Mitchell	H. Gray	1955	250	6	Kea	1,950	189.3	Sept. 18, 1968	P,W	S	No measurable drawdown after pumping many hours at 2 gpm.
* 902	do.	do.	1920	80	6	Kea	1,750	49.8	do.	P,W	S	No measurable drawdown after pumping many hours at 3 1/2 gpm. Temp. 22°C.
903	do.	do.	1955	250	6	Kea	1,850	119.6	do.	P,W	S	Reported discharge 4 gpm.
45-802	Magnolia Petroleum Co. L.M. Morrison Well 1	Magnolia Petroleum Co.	1956	15,140	--	--	2,213	--	--	--	--	Oil test. 1
803	Bakke Oil Co. W.O. Mills Well 1	Bakke Oil Co.	1956	1,022	--	--	2,201	--	--	--	--	Do.
46-801	Wayne West	F.A. Gray	1926	217	6	Kea	2,050	271.3	Jan. 9, 1969	P,W	D,S	Temp. 20°C.
802	do.	H. Gray	1939	506	6	Kea	2,100	365.1	do.	P,W	S	Measured drawdown 11.8 ft after 3/4 hour pumping 3 gpm. Water has odor of hydrogen sulfide.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
* YR-54-46-901	Wayne West	--	1915	369	--	Kgr	--	242.4	Jan. 8, 1969	P,W	S	Measured drawdown 42.3 ft after many hours pumping 3 gpm. Temp. 21°C.
47-702	Atlantic Refining Co. W.W. West Well 2	Atlantic Refining Co.	--	539	--	--	2,000	--	--	--	--	Oil test. 1/
801	Atlantic Refining Co. Massie West Well 2	do.	--	640	--	--	2,056	--	--	--	--	Oil test. 1/
48-701	C.B. Hudspeth Est.	Daniels	1939	365	8	Kea	2,000	296.0 296.5	May 31, 1939 Nov. 22, 1968	P,W	S	
* 801	do.	--	1916	216	8	Kea	--	210.0 208.3 209.1	May 31, 1939 Oct. 5, 1962 Nov. 22, 1968	P,W	S	Temp. 23°C.
51-301	B. Deaton	Ford	1927	--	6	Kgr	--	130.0	Oct. 17, 1968	P,W	S	Reported "gypy" water.
501	Eastman Ranch	--	--	515	6	Kea	1,900	299.8	Oct. 18, 1968	P,W	S	Pump set at 500 ft.
701	Val Verde Oil Corp. Bassett Well 1	Val Verde Oil Corp.	1929	4,010	--	--	2,069	--	--	--	--	Oil test. 2/
* 51-801	Eastman Ranch	--	Old	640	7	Kea	2,000	347.3	Oct. 18, 1968	P,W	D,S	Measured drawdown 5.6 ft after many hours pumping 2 gpm. Temp. 25°C.
* 901	Chapman Ranch	--	Old	400	6	Kea	1,900	292.1	do.	P,W	S	Measured drawdown 6.5 ft after many hours pumping 2 1/2 gpm. Temp. 25°C.
902	do.	--	1954	620	6	Kgr	1,850	500	Oct. 1968	P,W	S	Reported very small supply of "gypy" water.
903	Western Natural Gas Co. Bassett Well 1	Western Natural Gas Co.	1953	4,774	--	--	1,875	--	--	--	--	Oil test. 1/
* 52-101	B. Deaton	--	--	12	50	Kgr	--	8.4	Oct. 17, 1968	S,E 1 1/2	D,S	Dug. Cased to 10 ft. No measurable drawdown after pumping 1/2 hour at 75 gpm. Temp. 24°C.
* 201	Mrs. W.H. Bunger	A. Gray	1926	125	6	Kea	1,800	100	Sept. 1968	P,E 1	D,S	Reported discharge 15 gpm. Reported water became salty in 1950. Temp. 23°C.
202	do.	--	1885	75	4	Kea	--	71.3	Mar. 15, 1961	N	U	Well caved and abandoned.
* 203	do.	--	--	200	6	Kgr	--	129.6	Oct. 17, 1968	P,W	S	Measured drawdown 9.5 ft after many hours pumping 2 gpm. Temp. 23°C.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
					Val Verde County							
* YR-54-52-301	H.E. Arledge	G. Christian	1937	300	8	Kgf	1,775	157.6 156.5	Jan. 26. 1968 Nov. 20. 1969	P.W	S	ID-668-14. Temp. 26°C. 3 4
302	Sunray 'bx' Oil Co. W.A. Arledge Well 1	Sunray 'bx' Oil Co.	1967	16,548	--	--	1,819	--	--	--	--	Oil test. 1
401	Humble Oil & Refg. Co. Mills Mineral Trust Well 2	Humble Oil & Refg. Co.	1956	15,052	--	--	1,800	--	--	--	--	Oil test. 1
402	O.W. Owens Mills Well 1	O.O. Owens	1931	6,790	--	--	1,860	--	--	--	--	Oil test. 1
* 501	A.F. Mills	A.F. Mills	1948	162	8	Kea	1,800	131.2	Oct. 15. 1968	S.E 1	S	Pump set at 150 ft. Temp. 24°C.
502	Pandale School	H. Gray	1953	100	6	Kea	1,700	72.3	do.	S.E	D	Measured drawdown 5.0 ft after 1/2 hour pumping 10 gpm. Reported "salty" water. Water has odor of hydrogen sulfide.
* 503	H.J.Y. Mills	--	1929	150	6	Kea	1,700	66.0 68.6	May 10. 1939 Oct. 15. 1968	S.E 1	D	Cased to 30 ft. Deepened from 69 to 150 ft when visited in 1968. Measured drawdown 2.3 ft after 3/4 hour pumping 20 gpm. Oct. 15. 1968. Temp. 24°C.
* 504	do.	--	1918	168	6	Kea	1,750	149.1	do.	P.W	S	Cased to 5 ft.
* 601	George Baker	H. Mills	1915	80	6	Kea	1,665	60.1 61.5	May 10. 1939 Nov. 20. 1969	P.W	S	Measured drawdown 1/4 ft after 2 hours pumping 3 gpm. May 5. 1969. ID-668-12. Temp. 24°C. 3 4
602	C. Turner	--	--	300	7	Kea	1,800	169.1 169.4	Jan. 26. 1968 Nov. 20. 1969	P.W	D,S	ID-668-13. 3 4
* 603	L. Arledge	--	--	80	7	Kea	--	50	Aug. 1969	S.E 3/4	S	Temp. 24°C.
* 604	do.	--	1912	200	6	Kea	--	150.0	May 3. 1939	P.W	S	
* 701	Everett Estate	Snow	--	250	7	Kea	1,800	200	Aug. 1969	P.W	S	
* 801	H.J.Y. Mills	--	--	Spring	--	Kea	--	+	--	Flows	S	Estimated flow 1,150 gpm. May 18. 1939. Measured flow 1,804 gpm. May 20. 1969. Temp. 24°C.
* 53-201	H.E. Arledge	--	1910	280	8	Kea	1,900	214.1 213.9	Jan. 27. 1968 Nov. 20. 1969	P.W	S	ID-668-15. Temp. 23°C. 3 4
301	do.	--	--	350	7	Kea	2,050	294.1 294.0	Jan. 27. 1968 Nov. 20. 1969	P.W	S	ID-688-16. 3 4

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-54-53-302	A.O. Oberkampf	--	1879	340	7	Kea	--	300	Nov. 1968	P,W	S	Reported discharge 3 gpm.
52-801	Sinclair Oil Co. S.H. Herd Well 1	Sinclair Oil Co.	1961	14,538	--	--	2,034	--	--	--	--	Oil test. 1/
* 54-101	A.O. Oberkampf	--	1918	480	7	Kea	2,150	430.2 435.0	Oct. 23, 1967 May 19, 1969	P,W	D	Measured drawdown 9.2 ft after many hours pumping 2 gpm, Nov. 19, 1968. ID-667-15. 3/ 4/
102	Standard Oil Co. of Texas Alma Oberkampf Well 1	Standard Oil Co. of Texas	1968	15,490	--	--	2,173	--	--	--	--	Oil test. 1/
201	Atlantic Refining Co. Carson Well 2	Atlantic Refining Co.	--	665	--	--	2,140	--	--	--	--	Oil test. 1/
301	Wayne West	--	1905	320	--	Kea	2,000	247.6	Jan. 9, 1969	P,W	S	
302	do.	H. Gray	1960	282	7	Kea	1,900	220	Jan. 1, 1969	S,E	S	Reported discharge 20 gpm.
303	Atlantic Refining Co. Carson Well 1	Atlantic Refining Co.	--	540	--	--	1,950	--	--	--	--	Oil test. 1/
401	A.O. Oberkampf	--	1929	408	7	Kea	--	201.1	May 10, 1939	P,W	S	
402	J.A. Nettleton	Magnolia Petroleum Co.	1951	400	6	Kea	--	250	Oct. 1968	S,E	D	Cased to 4 ft. Reported drawdown 29 ft after 5 hours pumping 15 gpm.
403	do.	--	Old	350	6	Kea	1,950	233.0	Oct. 10, 1968	P,W	S	Cased to 4 ft. Pump set at 275 ft.
404	do.	Atlantic Refining Co.	1959	310	5	Kea	1,950	208.3	do.	N	U	Cased to 1 ft.
* 501	bill Carson	--	1904	300	6	Kea	1,980	237.3 241.8	May 10, 1939 Oct. 9, 1969	N	U	ID-668-43. 3/ 4/
502	do.	--	1942	500	7	Kea	2,050	305.6	Jan. 27, 1968	S,E	D	Pump set at 330 ft. ID-668-17.
601	Massie West	--	1934	275	7	Kea	1,880	228.6 228.9	Jan. 27, 1968 Jan. 7, 1969	P,W	S	ID-668-18. Temp. 22°C.
602	M. & W. West	Pan American Oil Co.	1956	420	8	Kea	1,975	220.7 221.3	May 25, 1968 Oct. 9, 1969	N	U	ID-668-45. 3/ 4/
603	Stanoline Oil Co. W.W. West Well 1	Stanoline Oil Co.	1956	15,673	--	Kea	1,869	--	--	--	--	Oil test. 1/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
* YR-54-54-701	J.A. Nettleton	A.F. Holderman	1930	526	6	Kea	2,100	390.0 407.1 412.8	May 10, 1939 July 12, 1961 Oct. 10, 1968	P,W	S	
702	do.	Magnolia Petroleum Co.	1951	330	5	Kea	1,900	210.3	do.	N	U	Cased to 1 ft.
801	Bill Carson	do.	--	385	6	Kea	2,000	316.3 318.7	May 25, 1968 Oct. 9, 1969	N	U	ID-668-44. 3 4/
* 802	Val Verde County	--	--	600	7	Kea	2,113	421.5 418.6	Oct. 23, 1967 Nov. 15, 1968	S,E 2	D	Temp. 25°C. ID-667-13.
803	Phillips Petroleum Co. J.T. Mayfield Well 1	Phillips Petroleum Co.	1960	15,174	--	--	2,037	--	--	--	--	Oil test. 1/
55-101	Wayne West	--	Old	249	6	Kea	1,860	182.1 187.2	May 20, 1968 Jan. 23, 1960	N	U	ID-668-42. 3 4/
201	Atlantic Refining Co. Massie West Well 1	Atlantic Refining Co.	--	713	--	--	2,182	--	--	--	--	Oil test. 1/
301	Shell Oil Co. B.E. Wilson Well 1	Shell Oil Co.	1968	774	--	--	2,071	--	--	--	--	Oil test. 1/
401	Wayne West	H. Gray	1937	320	--	Kea	--	300	1937	S,E	S	Reported discharge 8 gpm when drilled. Reported watered encountered at 300 ft.
402	Massie West	do.	1959	191	--	Kea	--	150	Oct. 1959	P,W	S	Reported discharge 42 gpm when drilled.
403	do.	do.	1950	288	--	Kea	2,000	229.2 220.4	Oct. 23, 1967 Jan. 23, 1970	P,W	S	Reported from 183 to 283 ft in 1951. Reported " gyp" water. ID-667-16. 3 4/
404	do.	do.	1946	233	--	Kea, Kgr	--	100	1946	P,W	S	Reported discharge 16 gpm when drilled.
405	Wayne West	W.T. Stokes	1962	400	8	Kea	1,900	168.5	Jan. 23, 1970	P,W	S	Pump set at 332 ft. Reported very small supply.
501	Ashmore & Elwell Oil Co.. Massie West Wells	Ashmore & Elwell Oil Co.	1959	407	--	--	1,956	--	--	--	--	Oil test. 1/
502	Union of Texas Oil Co. Massie West Well 7	Union of Texas Oil Co.	1968	377	--	--	1,859	--	--	--	--	Oil test. 1/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-54-55-601	Shell Oil Co. R.W. Hodge Well 1	Shell Oil Co.	1963	630	--	--	1,930	--	--	--	--	Oil test. 1/
* 701	Massie West	--	1879	130	8	Kea	--	97.7	May 31, 1939	N	U	Caved and abandoned.
702	do.	Massie West	1953	181	--	Kea	--	160	1953	S.E	D.S	Reported water encountered from 155 to 170 ft.
* 801	do.	--	Old	--	--	Kea	1,800	120.6 118.4	Oct. 24, 1967 Dec. 5, 1969	P.W	S	ID-667-17. Temp. 19°C. 3/ 4/
802	do.	H. Gray	1959	297	--	Kea	1,750	108.6 108.8	Feb. 3, 1968 June 12, 1969	P,W	S	Reported discharge 48 gpm when drilled. ID-668-22. 3/ 4/
901	J.C. Mayfield	do.	1952	350	6	Kea	1,900	261.7	Oct. 23, 1968	P.W	S	Deepened from 270 to 350 ft in 1956. No measurable drawdown after pumping many hours at 1 gpm.
* 902	do.	--	1928	125	6	Kea	--	96.4	May 31, 1939	P,W	S	
903	do.	--	--	150	8	Kea	1,720	128.4 118.7	Feb. 3, 1968 Dec. 3, 1969	N	U	Supplied water for drilling oil test. ID-668-23. 3/ 4/
56-101	H.W. Hodge	--	Old	176	6	Kea	1,850	151.6	Nov. 16, 1968	S.E 3	S	Measured drawdown 6.1 ft after 1 hour pumping 15 gpm.
* 102	do.	--	1953	140	10	Kea	--	--	--	T.E 100	Irr	Cased to 10 ft. Pump set at 130 ft. Reported discharge 800 gpm. Irrigated 20 acres.
103	B.E. Wilson Wilson & Hodges Well 4A	B.E. Wilson	1957	3,006	--	--	1,896	--	--	--	--	Oil test. 1/
* 301	J.V. Drisdale	--	1912	227	6	Kea	--	200	Oct. 19, 1968	P,W	S	Reported discharge 5 gpm. Temp. 22°C.
402	B.E. Wilson	B.E. Wilson	--	150	16	Kea	1,750	95.0 99.5	Jan. 27, 1954 Dec. 1, 1969	T,G	Irr	Pump set at 109 ft. Reported discharge 2,500 gpm. Irrigates 70 acres. 3/ 5/
403	do.	do.	--	150	12	Kea	1,710	34.3 40.4	Jan. 27, 1955 Dec. 1, 1969	T.G	Irr	Pump set at 60 ft. Reported discharge 2,500 gpm. 3/ 5/
* 404	do.	E. Mills	1938	216	8	Kea	--	90.6	May 31, 1939	P.W	S	
501	do.	H. Crawford	1946	120	12	Kea	1,750	43.0 41.8	Jan. 27, 1954 Dec. 1, 1969	T.B	Irr	Pump set at 75 ft. Reported discharge 2,000 gpm. Irrigates 40 acres of grass. 3/ 5/
502	B.E. Wilson	H. Crawford	1946	148	12	Kea	1,750	45.5 47.3	Jan. 27, 1954 Nov. 15, 1968	N	U	Abandoned irrigation well. 3/ 5/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

	WELL	OWNER OR NAME OF WELL	DRILLER	DATE COM-PLET-ED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEAR-ING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
						Val Verde County							
	YR-54-56-503	B.E. Wilson	B.E. Wilson	1966	175	12	Kea	1,750	46.9 43.4	Dec. 3, 1968 Dec. 1, 1969	T,B 100	Irr	Pump set at 75 ft. Reported discharge 1.400 gpm. Irrigates 40 acres.
*	504	do.	--	--	130	6	Kea	--	90	Nov. 19, 1968	S,E	D,S	Cased to 105 ft.
	601	do.	H. Crawford	1948	160	16	Kea	1,780	66.7 65.4	Jan. 27, 1954 Dec. 1, 1969	T,B	Irr	Cased to 60 ft. Pump set at 100 ft. Reported discharge 2,250 gpm. Irrigates 50 acres. 3 5
*	602	do.	B.E. Wilson	1952	200	18	Kea	1,780	62.7 58.8	Jan. 27, 1954 Dec. 1, 1969	T	U	Unused irrigation well. Reported drawdown 1/2 ft after several hours pumping 2,000 gpm when drilled. 3 5
	603	do.	--	--	125	--	Kea	--	52.6 55.2	Jan. 27, 1955 Dec. 1, 1969	P,W	S	3 5
*	701	do.	--	1900	75	6	KQ	--	29.2	May 21, 1939	S,E 1/2	D	Cased to bottom and perforated. Reported discharge 10 gpm. Temp. 22°C.
	702	R.W. Hodge	--	Old	127	6	Kea	--	101.9	Nov. 15, 1968	P,W	S	Deepened from 60 to 127 ft.
	59-101	Eastman Ranch	--	--	435	6	Kea	2,050	387.0	Oct. 18, 1968	P,W	S	No measurable drawdown after pumping many hours at 2 gpm.
*	301	J.B. Parker	--	--	283	7	Kea	1,800	228.4 229.4	Apr. 19, 1939 Oct. 18, 1968	P,W	D,S	
*	401	Henderson Ranch	--	--	828	5	Kea	--	603	Oct. 1968	P,W	S	Cased to bottom; casing perforated from 648 ft to bottom. Deepened to 828 ft in 1967. Reported discharge 14 gpm. Temp. 27°C.
*	501	do.	W.S. Seward	1950	748	8	Kea	2,050	575.2	Mar. 9, 1950	P,W	S	Temp. 26°C.
	701	Mrs. M.B. Cox	--	1936	800	8	Kea	1,885	534.6	Mar. 21, 1950	P,W	S	Pump set at 660 ft.
*	801	do.	--	Old	900	7	Kea, Kgr	--	600	Oct. 1968	P,W	S	Pump set at 800 ft. Temp. 26°C.
	802	do.	--	1925	900	8	Kea	--	600	do.	P,W	S	Pump set at 730 ft. Reported discharge 4 gpm.
*	60-201	H.E. Arledge	Snow	1937	215	5	Kea	1,700	168.5	Aug. 27, 1969	P,W	S	Temp. 24°C.
	202	O.W. Killam Everett Well 1	O.W. Killam	1948	3,001	--	Kea	1,563	--	--	--	--	Oil test.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
* YR-54-60-301	F. Everett Estate	--	--	Spring	--	Kea	--	+	--	Flows	S	Reported never ceased flowing. Estimated flow 340 gpm, May 8, 1939. Measured flow 588 gpm, May 29, 1969.
* 302	do.	--	--	Spring	--	Kea	--	+	--	Flows	D, Irr	Reported never ceased flowing. Estimated flow in excess of 1,150 gpm, May 15, 1939. Measured flow 857 gpm. May 29, 1969.
303	do.	T. Everett	1954	65	8	Kea	1,600	30	May 1969	S,E	D,S	Reported water became "salty" in 1965.
304	O.W. Killam W. Babb Well 1	O.W. Killam	1949	3,075	--	--	1,559	--	--	--	--	Oil test.
* 501	R. Cash	Snow	1925	574	6	Kea	--	480	Aug. 1969	P,W	D	Pump set at 550 ft. Temp. 24°C.
502	H.E. Arledge	--	1929	580	8	Kea	1,920	371.4 371.0	Jan. 26, 1968 Nov. 20, 1969	P,W	S	Pump set at 540 ft. ID-668-11. 3/4/
* 801	J. Cox	--	1903	500	6	Kea	1,920	391.9 388.7 390.2	July 14, 1961	P,W	D,S	No measurable drawdown after pumping many hours at 2 gpm on Sept. 25, 1968. Temp. 24°C.
* 802	do.	--	Old	520	8	Kea	1,875	396.2 396.0	Apr. 27, 1939 Sept. 25, 1968	P,W	S	No measurable drawdown after pumping many hours at 2 gpm on Sept. 25, 1968.
* 803	H.E. Arledge	--	Old	480	7	Kea	1,850	348.2 349.1	Jan. 26, 1968 Nov. 20, 1969	P,W	S	Reported very small supply of water. Temp. 26°C. ID-668-10. 3/4/
* 61-501	T. White	--	1920	550	6	Kea	2,025	464.4	Oct. 8, 1968	P,W	S	Measured drawdown 25.3 ft after 12 hours pumping 2 gpm. Temp. 24°C.
502	do.	--	1910	585	5	Kea	1,993	535	Oct. 1968	S,E	D,S	Pump set at 575 ft. Reported discharge 2 gpm.
601	B.D. Ward	--	1963	404	7	Kea	--	357	June 2, 1969	S,E 1	S	Cased to 8 ft. Pump set at 378 ft. Reported discharge 20 gpm.
* 901	Mrs. C.O. Folkes	--	--	400	6	Kea	1,900	366.0 364.0	May 4, 1939 June 9, 1969	P,W	S	
* 902	Mrs. T. Everett	Jack Daniels	1964	600	7	Kea	--	300	Aug. 1969	P,W	S	Temp. 25°C.
62-201	L. Albers	--	--	600	7	Kea	2,092	473.9	Oct. 9, 1968	P,W	S	
202	Phillips Petroleum Co. Guinn Est. Well 1	Phillips Petroleum Co.	1956	12,643	--	--	2,054	--	--	--	--	Oil test. 1/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
* YR-54-62-501	L. Albers	--	--	670	7	Kea	--	565	Oct. 1968	P,W	S	
502	do.	--	1941	617	7	Kea	2,003	386.3	Oct. 9, 1968	P,W	S	
* 503	do.	H. Gray	1946	600	--	Kea	2,124	464.9	May 15, 1961	S,E	D,S	Reported very small supply. Temp. 26°C.
* 601	H.E. Guinn Estate	--	1895	445	7	Kea	--	410	June 1969	P,W 2	D,S	Reported very small supply.
* 602	do.	--	1927	800	7	Kea	--	450	do.	P,W	D,S	Reported very small supply.
701	Producers Oil Co. B. Everett Well 1	Producers Oil Co.	1929	2,530	--	--	1,929	--	--	--	--	Oil test.
901	J.T. Mayfield	--	1895	600	7	Kea	1,910	404.0	May 22, 1969	P,W	S	
* 63-801	C.B. Hudspeth Estate	--	--	Spring	--	Kea	--	+	--	Flows	D,S	Estimated flow 1,600 gpm, June 14, 1939. Spring is near head of perennial flow on Devils River. Temp. 22°C.
* 64-101	J.C. Mayfield, Jr.	--	1927	115	7	Kea	--	52.2	June 15, 1939	P,W	S	Well deepened from 79 to 115 ft in 1956.
* 102	V. Cauthorn	--	1923	85	8	Kea	1,700	30.0 31.9	June 15, 1939 Oct. 23, 1968	P,W	S	
201	Delta Gulf Drilling Co. & Felmont Oil Co. B. Cauthorn Well 1	Delta Gulf Drilling Co. & Felmont Oil Co.	1956	12,568	--	--	1,905	--	--	--	--	Oil test. 1/
202	Shell Oil Co. & Gulf Oil Co. B. Cauthorn Well 2	Shell Oil Co. & Gulf Oil Co.	1962	17,087	--	--	1,742	--	--	--	--	Oil test. 1/
203	R. Cauthorn	Delta Gulf Drilling Co.	1962	338	10	Kea	1,858	186.0 183.0	Oct. 26, 1967 Jan. 15, 1970	N	U	Cased to 338 ft. Reported discharge 40 gpm when drilled. Supplied water for drilling oil test. ID-667-18. 3/ 4/
* 204	do.	--	Old	175	--	Kea	--	--	--	S,E	D	Pump set at 165 ft.
301	Shell Oil Co. B.E. Wilson Well 1	Shell Oil Co.	1959	10,505	--	--	2,096	--	--	--	--	Oil test. 1/
302	Dyar Brothers Oil Co. B.E. Wilson Well 1	Dyar Brothers Oil Co.	1929	3,594	--	--	2,086	--	--	--	--	Oil test.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OR WELL	DRILLER	DATE COM-PLET-ED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEAR-ING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-54-64-401	V. Cauthorn	--	--	130	7	Kea	1,700	89.6 90.0	Feb. 3, 1968 May 14, 1969	P,W	S	ID-668-24.
* 402	do.	--	1925	125	8	Kea	1,700	77.6 78.1	June 15, 1939 Aug. 29, 1969	P,W	D,S	Temp. 23°C.
* 55-41-701	J. Glasscock	--	01d	95	8	Kea	1,840	80.4 86.6	May 30, 1939 Oct. 22, 1968	P,W	D,S	
702	Pure Oil Co. T.L. Drisdale Well 2	Pure Oil Co.	1956	12,182	--	--	1,856	--	--	--	--	Oil test. 1
703	J.V. Drisdale	do.	1956	250	8	Kea	1,840	140	Oct. 1968	S,E 1/2	S	Reported discharge 600 gpm when drilled.
704	Lipan Oil Co. J.V. Drisdale Well 1A	Lipan Oil Co.	1965	423	--	--	1,828	--	--	--	--	Oil test. 1
* 801	J.V. Drisdale	--	1916	256	10	Kea	1,850	101.6 102.7	Jan. 27, 1954 Dec. 1, 1969	T,E 25	Irr	Measured discharge 580 gpm, Oct. 24, 1968. Irrigates a part of 25 acres of feed. Temp. 21°C. 3 5
* 802	do.	--	1916	325	10	Kea	1,850	104	Dec. 1, 1969	T,E 25	Irr	Measured discharge 470 gpm, Oct. 24, 1968. Irrigates a part of 25 acres of feed. Temp. 21°C.
42-701	Monsanto Co. B.T. Martin Well 1	Monsanto Co.	1965	11,000	--	--	2,058	--	--	--	--	Oil test. 1
801	Western Natural Gas Co. A.M. Cauthorn Well 2	Western Natural Gas Co.	1952	10,548	--	--	2,095	--	--	--	--	Do.
* 49-101	J.V. Drisdale	Young	--	180	12	Kea	--	110	Oct. 1968	T,E 100	Irr	Cased to 110 ft. Reported drawdown 15 ft pumping at 2,300 gpm when drilled. Measured discharge 1,880 gpm, Oct. 24, 1968. Irrigates 95 acres of feed. Temp. 22°C.
102	do.	--	--	215	18	Kea	1,850	97.2 93.8	Jan. 27, 1954 Dec. 1, 1969	N	U	Abandoned irrigation test. 3
* 103	do.	--	1949	125	8	Kea	1,850	81	1949	T,E 3	D,S	
104	do.	Hicks & Puckett Drilling Co.	1965	170	6	Kea	--	90	Oct. 1968	S,E 1/2	D	Cased to 135 ft. Pump set at 145 ft.
105	do.	J. Daniels & Sons	1927	280	6	Kea	1,950	179.1	Oct. 24, 1968	P,E	S	Reported discharge 35 gpm.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
☆ YR-55-49-106	J.O. Taylor	F.B. Rutledge	1909	100	8	Kea	1,850	92.1 93.1	May 30, 1949 Nov. 14, 1968	P,W	S	
☆ 201	J.V. Drisdale	--	Old	180	6	Kea	1,900	144.4	Oct. 24, 1968	P,W	S	No measurable drawdown after pumping many hours at 1 gpm. Temp. 22°C
202	do.	--	1952	180	4	Kea	--	63	Oct. 1968	S.E 1/2	S	
* 501	J.O. Taylor	--	1904	120	8	Kea	1,825	94.6 95.1	May 30, 1939 May 14, 1968	P,W	D,S	Measured drawdown 8.5 ft after many hours pumping 2 gpm, Nov. 14, 1968
801	Phillips Petroleum & Delta Gulf Drlg. Co. B.E. Wilson 1	Phillips Petroleum & Delta Gulf Drlg. Co.	1952	15,265	--	--	1,883	--	--	--	--	Oil test. 1
* 50-201	Mrs. J. Cauthorn	--	Old	400	7	Kea	--	253.4	Aug. 21, 1969	P,W	D	No measurable drawdown after pumping 1 hour at 3 gpm. Temp. 21°C.
202	Phillips Petroleum Co. G. Rose Well 1	Phillips Petroleum Co.	1951	11,590	--	--	1,962	--	--	--	--	Oil test. 1
203	Phillips Petroleum Co. J. Cauthorn Well 1A	do.	1955	10,304	--	--	1,989	--	--	--	--	Do.
204	Phillips Petroleum Co. J. Cauthorn Well 1C	do.	1957	10,176	--	--	2,018	--	--	--	--	Do.
205	Humble Oil & Refg. Co. H.W. Coe Well 1	Humble Oil & Refg. Co.	1955	10,516	--	--	2,079	--	--	--	--	Do.
301	B. Whitehead	--	Old	350	7	Kea	2,100	333.2	Aug. 21, 1969	P,W	S	Temp. 24°C.
☆ 302	do.	--	Old	350	7	Kea	--	300	Aug. 1969	P,E 1	D	Do.
303	Humble Oil & Refg. Co. W.B. Whitehead Well 1	Humble Oil & Refg. Co.	1956	11,074	--	--	2,142	--	--	--	--	Oil test. 1

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
					Val Verde County							
YR-55-50-304	R.J. Caraway Drlg. Co. W.B. Whitehead Well 1	R.J. Caraway Drlg. Co.	1956	10,602	--	--	2,078	--	--	--	--	Oil test. 1
601	L.D. Whitehead	--	--	420	6	Kea	2,150	391.7	Nov. 20, 1968	P,W	S	Reported discharge 8 gpm.
* 901	do.	--	--	390	7	Kea	2,108	361.4	Nov. 19, 1968	S,E	D,S	Reported discharge 12 gpm. Temp. 21°C.
51-401	B. Whitehead	--	1910	400	8	Kea	2,200	364.2	Aug. 21, 1969	P,W	S	
402	L.D. Whitehead	--	--	385	6	Kea	2,150	361.5	Nov. 20, 1968	P,W	S	Reported discharge 10 gpm.
* 701	L. Whitehead	--	1930	360	8	Kea	2,075	289.7	Nov. 18, 1968	P,W	D,S	Temp. 26°C.
702	do.	--	1917	365	6	Kea	2,100	274.5	Nov. 20, 1968	P,W	S	Reported discharge 5 gpm.
57-601	W. Fawcett	W. Fawcett	1948	250	6	Kea	--	190	1948	P,W	S	Reported discharge 16 gpm when drilled.
801	do.	--	Old	250	6	Kea	1,800	199.0	Feb. 5, 1969	S,E, P,W	D,S	
* 802	do.	--	1948	350	--	Kea	1,850	229.1	Jan. 30, 1969	P,W 1/2	S	Measured drawdown 37.9 ft after many hours pumping 1 gpm.
58-201	W.H. Whitehead	--	1937	325	7	Kea	2,000	252.1 252.5	Aug. 16, 1939 Aug. 22, 1969	P,W	S	Reported very small supply.
* 202	do.	--	--	350	7	Kea	--	251	Aug. 1939	N	U	Do.
* 301	N. Taylor	--	1937	360	6	Kea	--	302	do.	P,W	S	
* 601	Wardlaw & Rose	--	1931	450	7	Kea	1,950	225.3 226.0	Aug. 16, 1939 Dec. 4, 1968	S,E 3	D,S	Reported discharge 60 gpm.
602	do.	--	1910	370	--	Kea	1,950	217.1	Aug. 16, 1939	P,W	D,S	
801	Humble Oil & Refg. Co. Emma Wardlaw Well 1	Humble Oil & Refg. Co.	1956	15,053	--	--	1,984	--	--	--	--	Oil test. 1
802	D. Harrison	--	1948	345	7	Kea	2,000	303.0	Dec. 6, 1968	P,W	S	Reported very small supply.
803	C.R. Pussard	--	--	235	--	Kea	1,850	201.7	Jan. 13, 1969	P,W	S	
901	D. Harrison	--	Old	300	7	Kea	1,900	164.0	Dec. 6, 1968	P,W	S	Reported very small supply.
* 59-101	Mrs. F.W. Whitehead	--	1920	300	8	Kea	2,000	229.5 227.7	Aug. 16, 1939 Aug. 30, 1969	P,W	D,S	Temp. 23°C.
102	do.	--	1918	320	--	Kea	2,000	220.1	Aug. 16, 1939	P,W	D,S	

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-55-59-501	Magnolia Petroleum Co. W.E. Whitehead Well 1	Magnolia Petroleum Co.	1927	6,725	--	--	1.779	--	--	--	--	Oil test.
* 701	Wardlaw & Rose	A. Hughes	1937	240	7	Kea	1.900	193.0 194.7	Aug. 16, 1939 Dec. 4, 1968	P.W	S	Reported very small supply.
702	do.	--	1937	270	7	Kea	1.900	192.6 194.4	Aug 16, 1939 Dec. 4, 1968	N	U	Do.
703	Mrs. J.B. Leonard	--	--	300	7	Kea	1,900	229.5	Dec. 5, 1968	P.W	S	Do.
70-01-101	W. Fawcett	G. Crystal	Old	300	--	Kea	1,640	124.3	Feb. 5. 1969	P.W	S	Do.
102	J. Finegan	--	1938	220	--	Kea	1.670	203.6	do.	P.W	S	Do.
* 103	do.	--	1951	185	--	Kea	1,640	162.0	do.	P,W	S	Do.
* 201	W. Fawcett	A. Hughes	1938	243	--	Kea	1,700	195.6	Aug. 23, 1939	P.E	D.S	
202	Emma Whitehead	G. Crystal	1948	260	--	Kea	1,720	236.3	Feb. 5, 1969	P.W	S	
401	J. Finegan	E.B. Fuller	1953	190	--	Kea	1.600	148.7	do.	P.W	D,S	
402	do.	do.	1952	158	--	Kea	1,490	110.9	do.	S,E, P,W	D,S	
403	do.	--	Old	95	--	Kea	1,460	72.6	do.	P,W	S	
404	do.	--	1956	110	--	Kea	1,460	72.0	Feb. 4. 1969	P,W	S	
405	do.	--	--	300	--	Kea	1,680	203.2	do.	P,W	S	
501	do.	G. Crystal	1938	175	--	Kea	1,600	170.00	Feb. 13, 1969	P,W	S	No measurable drawdown after pumping many hours at 2 gpm.
502	do.	--	Old	625	--	Kea	1,936	463.7	Feb. 5, 1969	P,W	S	Reported very small supply.
601	do.	--	1938	560	--	Kea	1,960	465.1	do.	P.W	S	
* 701	H.K. Fawcett	--	--	Spring	--	Kea	1,360	+	--	Flows	N	Estimated flow 100 gpm, Feb. 4, 1969. One of many springs flowing from base of limestone bluff.
* 702	do.	--	--	Spring	--	Kea	1,340	+	--	Flows	N	Average discharge for 1966-67 period was 1,715 gpm. Dolan Springs. Measurements published by International Boundary and Water Commission.
* 703	O.D. Finegan	--	--	Spring	--	Kea	1,360	+	--	Flows	N	Estimated flow 900 gpm, Feb. 4, 1969.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OR CASING OF WELL (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
* YR-70-01-704	O.D. Finegan	--	--	Spring	--	Kea	1,360	+	--	Flows	S	Estimated flow 900 gpm. Sept. 17, 1966.
705	J. Finegan	E.B. Fuller	1952	505	--	Kea	1,810	464	Feb. 1969	P,W	S	Reported very small supply.
801	do.	--	1937	525	--	Kea	1,860	471.9	Feb. 13. 1969	P,W	S	
901	G. Tomlinson	--	1926	225	6	Kea	1,590	159.8	Aug. 6, 1968	P.W	S	
* 02-201	D. Harrison	--	1939	230	6	Kea	1,840	204.2 206.7	Aug. 10, 1939 Dec. 6, 1968	P,E	D.S	Reported discharge 7 gpm. Temp. 23°C.
202	C.R. Pussard	--	1940	245	--	Kea	1,860	200.4	Feb. 4, 1969	P,W	S	
* 203	J.E. Quigg	B. Myers	1939	324	--	Kea	1,830	243.2	Dec. 6, 1968	P.W	D	Reported very small supply.
204	Shell Oil Company & Gulf Oil Co. Kathryn Mueller Well 1	Shell Oil Co. & Gulf Oil Co.	1962	16,000	--	--	1,729	--	--	--	--	Oil test. 1
* 301	D. Harrison	--	Old	266	--	Kea	1,880	237.4	Aug. 10, 1939	N	U	Reported very small supply.
* 302	do.	--	--	262	7	Kea, Kgr	1,900	159.2	Dec. 6, 1968	P,W	S	Do.
303	C.P. Muller	--	--	270	6	Kea	1,720	168.7	do.	P.W	S	Do.
* 304	J. Galloway	J. Galloway	1915	600	--	Kea, Kgr	1,830	272.6	Aug. 8, 1939	N	U	Reported very small supply "gyp" water.
401	E.A. Davis	Lennie Crawford	1956	228	7	Kea	1,630	161.4	Dec. 3, 1968	P,E 1	S	Pump set at 208 ft. Reported discharge 15 gpm when drilled.
501	do.	W. Heine	1946	196	--	Kea	1,670	183.3	do.	P.W	D.S	Cased to 20 ft. Reported discharge 12 gpm when drilled.
601	G. Tomlinson	L.E. Davis	1906	520	6	Kea	--	480	Aug. 1968	P,W	S	Reported discharge 4 1/2 gpm when drilled.
* 602	do.	Plaker	1938	540	--	Kea	--	480	do.	P.W	D.S	Reported discharge 6 1/2 gpm. ID-393. Temp. 24°C.
* 603	E.A. Davis	--	1928	260	7	Kea	1,840	184.3 184.4	Aug. 8, 1939 Dec. 3, 1968	P.W	S	
* 701	G. Tomlinson	Jack Daniels	1956	217	6	Kea	1,590	164.4	Aug. 6, 1968	P,W	S	No measurable drawdown after pumping many hours at 2 1/2 gpm.
702	do.	Curtis	1940	300	7	Kea	1,670	224.7	do.	P.W	S	No measurable drawdown after pumping many hours at 2 1/2 gpm. ID-392. Temp. 22°C.
703	do.	do.	1938	530	6	Kea	--	380	Aug. 1968	P,W	S	Reported discharge 16 gpm ID-391

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-70-02-704	G. Tomlinson	H. Heine	1946	538	6	Kea	--	475	Aug. 1968	P,W	D,S	Reported discharge 18 gpm when drilled. ID-390.
705	do.	Jack Daniels	1952	416	--	Kea	--	300	1952	P,W	U	Reported discharge 1 gpm when drilled.
706	Shell Oil Co. Edith Tomlinson Well 1	Shell Oil Co.	1965	650	--	--	1,960	--	--	--	--	Oil test. 1
* 901	J.W. Brown	--	Old	355	--	Kea	1,860	283.2 275.2	Aug. 7, 1939 Nov. 24, 1968	P,W	S	Measured drawdown 55.9 ft after 4 hours pumping 1 1/2 gpm, Nov. 24, 1968. Temp. 24°C.
* 03-101	J. Galloway	J. Galloway	1931	300	6	Kea	--	167.2	Aug. 8, 1939	N	U	Well destroyed. Reported very small supply.
102	do.	--	1955	350	7	Kea	1,880	235.6	Dec. 5, 1968	P,W	D,S	Cased to 5 ft. Measured drawdown 1.2 ft after many hours pumping 1 gpm.
401	do.	Jack Daniels	1962	100	7	Kea	--	80	Dec. 1968	P,W	S	Obstruction at 75 ft. Water reported at 80 ft. Drilled to 120; plugged back to 100 ft. Reported discharge 5 gpm.
09-401	Mrs. M. Almond	Sam Crites	1951	370	6	Kea	1,280	157.5	May 15, 1951	P,W	S	ID-402. 2 7
901	Shell Oil Co. Miers Well 1	Shell Oil Co.	1965	1,817	--	Kea	1,708	--	--	--	--	Oil test. 1
10-101	R. Miers	--	1932	475	7	Kea	1,680	224.0	Aug. 8, 1968	P,W	S	Reported very small supply.
* 201	do.	--	--	309	7	Kea	1,730	285	Aug. 1968	S,E	S	Reported very small supply. Temp. 24°C.
202	do.	--	1920	520	7	Kea	1,760	300	do.	P,W	S	Do.
* 501	do.	--	--	320	7	Kea	1,630	270.0 269.8	Aug. 14, 1939 Aug. 8, 1968	P,W	S	Do.
* 801	T. Hutto	--	1900	600	--	Kea	--	500	Jan. 1969	P,W	S	Reported discharge 3 gpm. Pump set at 720 ft.
802	do.	W.S. Seward	1949	500	--	Kea	1,680	431.0	Feb. 12, 1969	P,W	S	Measured drawdown 1.4 ft after many hours pumping 3 gpm.
901	do.	--	Old	600	--	Kea	1,800	496.0	Feb. 11, 1969	P,W	S	Pump set at 580 ft.
* 11-401	Mrs. M. Seward	E. Mills	1937	365	--	Kea	1,780	292.2 292.6	Aug. 17, 1939 Jan. 28, 1969	P,W	S	
402	T. Hutto	--	1940	400	--	Kea	1,780	340.2	do.	P,E	D,S	

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR WELL (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-70-11-701	T. Hutto	W.S. Seward	1948	500	--	Kea	1,800	450	Jan. 1969	P,W	S	
* 801	C. Hutto	--	1949	500	--	Kea	1,870	453.6	Feb. 7, 1969	P,W	S	Measured drawdown 5.5 ft after many hours pumping 3 gpm. Temp. 17°C.
17-101	Mrs. M. Almond	Sam Crites	1951	650	6	Kea	1,660	503.8	May 22, 1951	P,W	S	Reported water encountered from 625 to 650 ft and rose to within 504 ft of land surface. ID-403. 2 7
201	George Whitehead	--	--	1,000	--	Kea	1,685	484.3 489.7	Nov. 19, 1964 Apr. 9, 1969	P,W	D,S	Measured drawdown 22.6 ft after pumping many hours at 3 gpm, Feb. 10, 1965. ID-308. 3 4 7
* 301	Hussie Miers	Keltner Drilling Co.	1965	700	8	Kea	1,665	480.5 472.8	Apr. 23, 1965 Dec. 15, 1969	N	U	Cased to 6 ft. Measured drawdown 5 ft after 4 hours pumping 20 gpm. Samples collected during drilling of well. WO-4. Temp. 27°C. 3 4
* 401	C. Hinds	do.	1965	670	7	Kea	1,460	325.4 329.2 328.5 323.0	Nov. 9, 1965 July 1, 1968 July 1, 1969 Nov. 20, 1969	N	U	Cased to 7 ft. Measured drawdown 68 ft after 4 hours pumping 7 gpm, Nov. 20, 1969. Water sample collected during drilling of well. WO-4. Temp. 27°C. 4
701	Douglas Oil Co. J.E. Sellers Well 1	Douglas Oil Co.	1927	4,192	--	--	1,288	--	--	--	--	Oil test.
901	Dr. Sanders Est.	--	Old	450	7	Kea	1,440	389.8 391.3	Nov. 30, 1964 Oct. 11, 1968	P,W	S	ID-304.
902	do.	--	Old	350	7	Kea	1,390	291.7 293.1 302.7 302.4	Nov. 24, 1964 Jan. 26, 1965 Oct. 11, 1968 Feb. 11, 1969	P,W	S	No measurable drawdown after pumping many hours at 2 gpm, Jan. 26, 1965. ID-664-70.
* 18-101	Hussie Miers	--	1902	700	--	Kea	1,770	560	1950	P,W	D,S	Pump set at 650 ft. ID-324.
* 201	do.	--	1938	690	7	Kea	1,820	450	Jan. 1969	P,W	S	ID-350. Temp. 22°C.
* 301	A.R. Brotherton Est.	Jack Daniels	1961	700	14	Kea	1,915	637.3	Aug. 6, 1966	S,E 2	S	Oil test; converted to water well. ID-666-36. Temp. 23°C. 2
302	do.	Fensland Oil Co.	1923	825	6	Kea	1,910	630.0	Sept. 25, 1968	N	U	Oil test; converted to water well. Cased to 400 ft. Drilled to 292 ft; plugged back to 825 ft. 2
* 401	Mrs. C. Markward	--	1920	600	7	Kea	1,640	292.4	Sept. 5, 1939	S,E 3	D,S	Pump set at 500 ft. ID-251 Temp. 24°C. 1
402	do.	--	--	581	--	Kea	1,630	459.7	Feb. 14, 1969	P,W	S	ID-252.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-70-18-901	R. Gillis	--	--	500	7	Kea	1,440	313.6 309.6	Nov. 16, 1967 Aug. 14, 1968	--	S	ID-224.
25-201	Dr. Sanders Est.	--	Old	350	7	Kea	1,330	270.3 265.9	Mar. 19, 1964 Oct. 11, 1968	P,W	S	ID-664-69.
301	Amistad Ranch Co.	--	--	525	--	Kea	1,332	182.5 178.2 179.6 185.7	June 30, 1964 Dec. 1, 1964 Sept. 1. 1965 Sept. 17, 1966	P,W	S	ID-664-17. 7
* 501	do.	Lonnie Crawford	1950	--	8	Kea	1,235	187.5 194.4 199.6	Feb. 16, 1950 Mar. 17, 1964 June 30, 1964	P,W	S	Reported discharge 1 gpm. ID-101. Temp. 23°C.
502	Elvis Stewart	do.	1938	520	7	Kea	1,228	232.0 156.1	Mar. 18, 1964 Dec. 5, 1969	P,W	S	Pump set at 300 ft. ID-292. 3 4 7
* 601	do.	--	1910	480	7	Kea	1,220	207.8	Sept. 5, 1939	P.W	D,S	Temp. 27°C. ID-291.
602	do.	Shell Oil Co.	1969	2,410	8	Ke	1,238	210.6	May 9, 1969	N	U	Oil test; converted to water well. Drilled to 9,695 ft; plugged back to 2,410 ft and casing perforated at 2,408 ft. Abandoned. ID-662-2.
603	Miers Brothers	W. Young	1967	505	8	Kea	1,216	226.6 226.0 153.8 141.2	Mar 1967 July 6, 1968 July 1, 1969 Nov. 19, 1969	N	U	Supplied water for drilling oil test. Reported water encountered at 512 ft and rose to within 227 ft of land surface. ID-668-39. 4 7
* 604	do.	--	Old	500	6	Kea	1,220	250	Aug. 1969	P,W	D,S	
605	do.	J. Nichols	1965	590	6	Kea	1,267	256.6 179.3	Feb. 3. 1966 Dec. 5, 1969	N	U	ID-665-80. 3 4
* 801	C. Longly Est.	--	1927	220	7	Kea	1,180	195.2 189.7	July 26, 1939 Mar. 14, 1964	P,W	S	Reported water has odor of hydrogen sulfide. ID-297.
902	do.	T. Harris	1952	1,560	8	Kea	1,110	113.0 97.4 90.4 84.0	Mar. 16, 1964 July 2, 1968 Mar. 17, 1969 July 10, 1969	N	U	Oil test; converted to water well. Drilled to 2,125 ft; plugged back to 1,560 ft. Reported discharge 1,000 gpm. ID-416. 1 4
26-101	R. Gillis	--	--	485	7	Kea	1,496	398.1	Aug. 14, 1968	P,W	S	No measurable drawdown after pumping many hours at 3 gpm.
102	Amistad Ranch Co.	--	--	500	12	Kea	1,360	260.0 237.1 249.0 242.0	July 13, 1964 Mar. 1, 1965 July 6. 1968 July 10. 1969	N	U	Supplied water for highway construction. ID-664-18. 4

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
☆ YR-70-26-201	Walter Gillis	--	1909	420	6	Kea	1,400	295.0	Aug 14, 1968	P,W	S	Reported discharge 5 gpm. Temp. 24°C.
☆ 202	do.	--	--	1,100	5	Kea	--	400	Aug. 1968	T,G	S	Reported discharge 200 gpm. 26°C.
203	do.	--	Old	500	7	Kea	1,525	409.2	Nov. 16, 1967	S,E	S	Reported water encountered from 500 to 600 ft and rose to within 410 ft of land surface. ID-219.
204	do.	--	--	1,100	12	Kea	1,440	325.8 332.7 333.1 328.3	Nov. 16, 1967 Aug. 14, 1968 Dec 11, 1968 July 17, 1969	N	U	Reported discharge 550 gpm. Irrigation test. ID-667-221.4
401	do.	--	--	500	7	Kea	1,300	201.7 195.0	Sept. 26, 1968 July 17, 1969	P,W	S	Reported discharge 25 gpm. ID-220. 3 4 7
501	do.	--	--	445	6	Kea	1,364	261.2 260.8 255.0 256.1	Aug. 14, 1968 Dec. 11, 1968 June 18, 1969 July 17, 1969	P,W	S	Measured drawdown 2.9 ft after many hours pumping 3 gpm, Aug. 14, 1968. ID-221.
601	Mrs. E.D. Waldrop	--	--	405	7	Kea	1,350	243.8 348.2	Dec. 27, 1950 Aug. 14, 1968	P,W	D,S	ID-337.
901	Mrs. S.M. Waldrop	--	--	--	--	Kea	1,331	247.6 264.8 255.0 254.8	June 9, 1950 Sept. 2, 1964 June 24, 1968 July 11, 1969	P,W	S	Pump set at 290 ft. Reported discharge 15 gpm. ID-341. 4 7
902	S.F. Hurlbut Mrs. E.D. Waldrop Well 1	S.F. Hurlbut	1959	2,742	--	--	1,210	--	--	--	--	Oil test. 1
27-801	Billie C. Lewis	Lonnie Crawford	1950	475	6	Kea	1,325	229.7	Feb. 28, 1964	P,W	S	Cased to 226 ft. Pump set at 300 ft. Reported discharge 30 gpm. ID-382. 2
☆ 33-101	E. Brite	McNamara-Leavell	1964	472	8	Kea	1,186	217.3 221.6 150.2 142.3	Apr. 15, 1968 July 1, 1968 July 1, 1969 Dec. 11, 1969	N	U	Measured drawdown 20.2 ft after 7 hours pumping 150 gpm, Apr. 15, 1968. ID-664-51. Temp. 24°C. 4
201	San Pedro Dev. Co.	Hicks & Puckett	1965	613	10	Kea	1,200	193.1 194.8 196.4 155.7	Aug. 13, 1965 Sept. 27, 1967 July 1, 1968 July 7, 1969	T,E	P	Cased to 215 ft. Pump set at 526 ft. Measured drawdown 211.3 ft after 2 1/4 hours pumping 205 gpm, Sept. 27, 1967. Reported water has odor of hydrogen sulfide. ID-665-75. 4

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COM-PLET-ED	DEPTH OF WELL (FT)	DIAMETER OR CASING OF WELL (IN.)	WATER-BEAR-ING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
* YR-70-33-301	R. Hutto	--	--	450	6	Kea	1,225	182.7 190.7 190.6 174.4	Nov. 2, 1964 July 2, 1968 Aug. 13, 1968 July 10, 1969	P.W	S	Measured drawdown 2.5 ft after many hours pumping 3 gpm. ID-664-91. Temp. 24°C. 4/
302	Hutto Bros. et al	O.W. Killam	1949	--	10	Kea	1,185	213.0 212.1 193.7 193.2	Mar. 16, 1964 Aug. 26, 1964 June 1, 1965 Sept. 1, 1965	P.W	S	Oil test; converted to water well; drilled to 2,678 ft; plugged back. ID-664-28. Temp. 24°C. 1/
* 303	C. Kelley	Keltner Drilling Co.	1965	1,000	8	Kea	1,170	152.4	Mar. 25, 1965	N	U	Test hole; cased to 226 ft. Measured drawdown 3 ft after 4 hours pumping 27 gpm. Mar. 25, 1965. Water samples collected during drilling of well. WO-5. Temp. 25°C. 1/ 4/
401	B.M. Brite	Bunn & Johnson & Bracken Oil Co.	1963	--	8	Kea	1,199	190.3	Sept. 22, 1964	S,E	S	Oil test; converted to water well. Originally drilled to 2,616 ft; plugged back. ID-664-50. 1/ 7/
* 402	Mrs. M.S. Newton	Daniels	--	180	8	Kea	1,090	123.7 108.3	Aug. 14, 1968 Dec. 11, 1969	P,W	S	Reported water has odor of hydrogen sulfide. ID-260.
* 403	do.	Grebe	1952	423	4	Kea	1,040	68.0 70.4 68.0 65.7	June 14, 1964 July 1, 1968 July 7, 1969 Dec. 11, 1969	N	U	Test hole. ID-23. 4/
* 501	Pruett DeLoach	Jack Daniels	1965	410	8	Kea	1,174	179.5 185.9 187.6 159.7	Mar. 8, 1965 Mar. 6, 1966 Mar. 14, 1968 May 9, 1969	S.E 1 1/2	D	Cased to 10 ft. Pump set at 298 ft. Measured drawdown 90.6 ft after 1/2 hour pumping 15 gpm, Mar. 8, 1965. Reported water encountered from 130 to 135 ft and rose to within 186 ft of land surface. ID-665-54. Temp. 25°C. 2/ 4/
502	S. Long	--	1965	466	6	Kea	1,178	187.4 188.4	Oct. 13, 1966 Feb. 28, 1967	S,E	S	Cased to 110 ft. Measured drawdown 8.7 ft after 1 1/2 hours pumping 300 gpm, Feb. 28, 1967. ID-666.46. Temp. 24°C. 7/
* 601	do.	Hicks & Puckett Drilling Co.	1966	510	8	Kea	1,122	136.6 132.8 136.4 129.9	Apr. 15, 1966 June 2, 1966 July 1, 1968 July 7, 1969	N	U	Cased to 100 ft. Measured drawdown 0.25 ft after 1 1/2 hours pumping 314 gpm, June 2, 1966. ID-668-18. Temp. 27°C. 4/

See footnotes at end of table.

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
* YR-70-33-602	F. Rose	Jack Daniels	1966	242	7	Kea	1,180	148.1 209.2 152.2 147.2	Nov. 1, 1966 June 16, 1967 Sept. 23, 1968 May 16, 1969	S,E	Ind	Cased to 75 ft. Drilled to 370 ft. Plugged back to 242 ft. Pump set at 240 ft. Supplies water for minnow farm. Measured drawdown 29.9 ft after 3 hours pumping 300 gpm. Nov. 1, 1966, ID-666-49.
603	Reclamation Oil Producing Syndicate Moore & Whitehead Well 1	Reclamation Oil Producing Syndicate	1923	2,550	--	--	1,132	--	--	--	--	Oil test.
* 604	C. Kelley	N. Cardwell	1919	554	7	Kea	1,164	159.5 152.6	July 24, 1939 Dec. 5, 1969	P,W	D,S	Pump set at 200 ft. Reported encountered small supply of water at 500 ft. ID-288. 3/ 4/
* 701	Mrs. M.S. Newton	--	--	520	8	Kea	1,020	46.0 45.1 45.1	May 20, 1964 Mar. 7, 1966 May 27, 1966	P,W	S	Pump set at 200 ft. Measured drawdown 0.1 ft after 1 2/3 hours pumping 40 gpm, May 27, 1966. Reported water encountered at 60 ft and rose to within 46 ft of land surface. ID-261.
* 702	Mrs. E. Daughtrey	U.S. International Boundary & Water Commission	1952	450	4	Kea	1,047	79.5 80.2 79.3 72.9	June 17, 1964 July 1, 1968 July 17, 1969 Dec. 11, 1969	N	U	Cased to 22 ft. Deepened from 772 to 972 ft in 1964; after water samples were collected, well was plugged back to 450 ft. ID-22. 2/ 4/
* 703	do.	do.	--	262	8	Kea	1,000	40	1951	P,W	S	ID-262.
* 704	do.	Jack Daniels	1967	306	8	Kea	1,080	107.6 112.4 110.0 102.4	Mar. 3, 1967 July 1, 1968 July 7, 1969 Dec. 11, 1969	S,E	S	Cased to 8 ft. Pump set at 140 ft. Measured drawdown 13.4 ft after 4 hours pumping 5 gpm. Mar. 3, 1967. ID-667-2. Temp. 26°C. 4/
* 705	do.	--	--	97	--	Kea	955	22.1 11.5 10.3 10.4	June 14, 1964 Sept. 17, 1966 July 1, 1968 July 10, 1969	P,W	S	ID-264. 4/
* 801	Queen City Realty & Investment Co.	--	--	Spring	--	Kea	972	+	--	Flows	S	Average discharge for 1961-67 period was 86.7 gpm. Cantu Spring. Measurements published by International Boundary and Water Commission. Temp. 24°C.
* 802	Mrs. E. Daughtrey	Jack Daniels	1964	250	10	Kea	1,020	85.6	May 13, 1964	P,W	S	Cased to 10 ft. Reported discharge 5 gpm. ID-664-3.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-70-33-803	Mrs. M.S. Newton Well 1	D.H. Werblow & Assoc.	1955	7,337	--	--	1,116	--	--	--	--	Oil test. 1/
804	Mrs. E. Daughtrey	Daniels	--	240	8	Kea	1,115	140	1951	P,W	S	ID-265.
805	Queen City Realty & Investment Co.	Jack Daniels	1964	126	10	Kea	978	12.2 5.0	June 23, 1964 July 7, 1969	N	U	Cased to 18 ft. Reported discharge 40 gpm when drilled ID-664-6.
901	W.S. Stevenson	Transcontinental Oil Co.	1927	--	16	Kea	1,064	89.7 75.3 75.8 81.5	June 16, 1964 Dec. 1, 1964 June 1, 1965 Jan. 17, 1966	N	U	Oil test; converted to water well; drilled to 4,500 ft and plugged back. Well destroyed in 1966. ID-275.
902	Brooks Store	--	--	--	--	Kea	1,072	101.2 95.1 95.7 94.1	June 14, 1963 July 13, 1966 July 1, 1968 July 1, 1969	N	U	Reported "gyp" water. ID-612. 4/
903	Mrs. M.S. Newton	Joe York, Jr.	1964	445	16	Kea	1,072	81.0 77.4	Dec. 3, 1964 Dec. 31, 1969	N	U	Cased to 300 ft; perforated from 100 to 300 ft. Originally drilled to 499 ft; plugged back to 445 ft because of mineralized water. Measured drawdown 109.3 ft after 4 hours pumping at 2,010 gpm, Dec. 18, 1964. Acidized with 10,000 gallons. ID-665-55. 3/ 4/
34-101	Mrs. S. Altizer	--	--	--	6	Kea	1,241	221.5 209.6	Dec. 27, 1950 July 11, 1969	P,W	S	Reported discharge 40 gpm. ID-354. 3/ 4/
301	Sparks Rust	--	--	--	--	Kea	1,240	229.1 216.0	Sept. 2, 1964 July 11, 1969	P,W	S	ID-664-43. 3/ 4/ 7/
401	Mrs. S. Altizer	--	--	250	6	Kea	1,140	129.2 119.4 126.3 129.0	Jan. 16, 1964 May 3, 1965 July 20, 1968 July 11, 1969	P,W	S	Cased to 200 ft. Pump set at 185 ft. ID-357. 4/ 7/
402	W. Lausen, Jr.	Jack Daniels	1963	262	8	Kea	1,100	128.0	Oct. 12, 1964	P,W	S	Cased to 10 ft. ID-664-65. 2/
501	J. Lampe	Keltner Drilling Co.	1965	825	8	Kea	1,113	95.4 89.6	Apr. 5, 1965 Nov. 20, 1969	N	U	Test hole. Cased to 123 ft. Measured drawdown 1.5 ft after 4 hours pumping 28 gpm, Apr. 5, 1965. Water samples collected during drilling of well. WQ-6. Temp. 24°C. 1/ 2/ 3/ 4/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
* YR-70-34-601	Bluff Creek Ranch	--	--	291	7	Kea	1,160	133.6 128.5 130.6 166.4	Sept. 12, 1966 Dec. 1, 1966 Dec. 5, 1966 Aug. 13, 1968	S,E	D,S	Measured drawdown 28.4 ft after 2 1/2 hours pumping 15 gpm, Aug. 13, 1968. ID-668-40. Temp. 24°C.
602	do.	--	--	--	--	Kea	1,130	89.5 89.5 90.7 85.5	Sept. 2, 1964 June 24, 1968 Dec. 9, 1968 July 11, 1969	P,W	S	ID-664-42. 4/
* 701	A. Green	Crawford	1924	135	7	Kea	1,040	53.3	Aug. 2, 1968	S,E 1/	D	Pump set at 100 ft. Temp. 22°C.
702	W. Lausen, Jr.	--	--	100	8	Kea	1,020	46.7 32.9 27.7 36.9	Aug. 20, 1964 Nov. 7, 1967 June 18, 1968 Apr. 14, 1969	N	U	Measured drawdown 0.8 ft after many hours pumping 4 gpm, June 18, 1968. Well caved and abandoned in May 1969. ID-112. Temp. 24°C. 4/ 7/
* 801	J. Lampe	Crawford	--	120	6	Kea	1,105	72.7 71.8 71.9 71.6	Dec. 1, 1964 July 2, 1968 Dec. 9, 1968 July 11, 1969	P,W	S	ID-361. Temp. 24°C. 4/
802	K. Hoblitzelle Bluff Creek Ranch Well 1	K. Hoblitzelle	1955	2,333	--	--	1,120	--	--	--	--	Oil test. 1/
803	Petrocel Corp. Bluff Creek Ranch Well 2	Petrocel Corp.	1956	2,739	--	--	1,207	--	--	--	--	Do.
901	J. Appleton	W. Young	1968	130	6	KQ	1,085	46.0	Nov. 18, 1968	S,E	D	Cased to 101 ft. Reported discharge 35 gpm, Nov. 18, 1968.
902	Petrocel Corp. Bluff Creek Ranch Well 1	Petrocel Corp.	1952	1,973	--	--	1,100	--	--	--	--	Oil test. 1/
903	Independent Oil Co. S. Rust Well 1	Independent Oil Co.	1924	5,430	--	--	1,177	--	--	--	--	Oil test.
35-101	Petrocel Corp. Mrs. E.D. Waldrop Well 1	Petrocel Corp.	1952	2,378	--	--	1,271	--	--	--	--	Oil test. 1/
102	Mrs. E.D. Waldrop	do.	1952	547	--	Kea	1,264	188.0 190.9 192.0 193.0	Apr. 20, 1967 July 1, 1965 June 1, 1969 July 1, 1969	N	U	Supplied water for oil test. ID-667-7. 4/
501	S.F. Hurlbut S. Rusk Well 1	S.F. Hurlbut	1954	3,485	--	--	1,180	--	--	--	--	Oil test. 1/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
						Val Verde County						
YR-70-41-101	N. Briggs	--	--	401	8	Kea	919	13.5 17.7 15.7 13.5	Nov. 3, 1954 June 14, 1964 July 2, 1968 July 15, 1969	N	U	ID-269.
201	O.L. Neyland	L. Killingsworth	1962	45	8	KQ	900	13.1	Sept. 26, 1968	J,E	D	Reported discharge 75 gpm.
202	C.R. Rose	--	1961	238	7	Kea	900	23.0	do.	S,E 1	D	Pump set at 100 ft. Measured drawdown 0.5 ft after 1/2 hour pumping 25 gpm.
* 203	R. Kite	--	1948	50	8	KQ	900	17.8	Sept. 26, 1968	P,W	D	Cased to bottom and perforated. Temp. 21°C.
204	do.	--	1943	50	8	KQ	900	17.6	do.	J,E 1	D	Cased to bottom and perforated.
205	C.V. Uranga	Jack Daniels	--	100	6	KQ	900	18.0	Oct. 7, 1968	S,E 3/4	D	No measurable drawdown after pumping 1/2 hour at 15 gpm.
206	Quality Ready Mix Co.	Quality Ready Mix Co.	1963	20	24	KQ	700	18.4	do.	J,E 1/2	D	Cased to 20 feet. Reported discharge 10 gpm.
207	T.J. Bailey Oil Co.	J. Bailey Oil Co.	1956	2,648	--	--	896	--	--	--	--	Oil test. 1/
* 301	City of Del Rio	--	--	Spring	--	Kea	960	+	--	Flows	P	East spring of three springs which are known as San Felipe Springs. Miscellaneous discharge measurements of springs for period 1895 to 1961 published by U.S. Geological Survey gaging station installed by International Boundary and Water Commission in 1961. Average discharge of springs for period Feb. 1961-67 was 35,900 gpm. (80 cfs).
* 302	do.	--	--	Spring	--	Kea	960	+	--	Flows	Irr. P	West spring of San Felipe Springs.
* 303	do.	--	--	Spring	--	Kea	960	+	--	Flows	Irr	South spring of San Felipe Springs.
304	Patricio Confreres	--	--	56	4	Kea	995	37.5 35.9	Aug. 20, 1937 Feb. 10, 1970	P,W P,W	D D	3/
305	H.L. Sloan	H.L. Sloan	1959	15	3	KQ	940	8.7	Oct. 7, 1968	N	U	
306	do.	do.	1959	15	2	KQ	940	5	Oct. 1968	C,E 1/2	Irr	Cased to bottom. Perforated from 12 ft to bottom. Irrigates nursery.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
* YR-70-41-601	W.L. Moody IV	--	--	150	--	KQ	900	29.9	June 25, 1965	P,W	S	Reported discharge 3 gpm. ID-665-71. Temp. 23°C. 7/
* 42-101	J.F. Moon	Keltner Drilling Co.	1965	134	5	Kea	1,030	68.0	Aug. 8, 1968	S,E	D	Water has odor of hydrogen sulfide. Temp. 25°C.
* 102	A.Y. Shely	A.H. Shely	1936	125	6	Kea	1,000	32.3	do.	P,W	D	Cased to 80 ft. Deepened from 38 ft to 125 ft in 1964. Measured drawdown 0.2 ft after 24 hours pumping 5 gpm. Temp. 24°C.
* 103	J. Leach	Crawford	--	200	7	Kea	1,070	70	Aug. 1969	S,E 3/4	D	Cased to 100 ft. Temp. 23°C.
104	East Del Rio Oil Co. Russell & Neatherby Well 1	East Del Rio Oil Co.	1928	3,332	--	--	953	--	--	--	--	Oil test.
105	K. Hoblitzelle T. Brite Well 1	K. Hoblitzelle	1955	1,001	--	--	1,060	--	--	--	--	Oil test. 1/
106	L.A. McNutt	J.T. Crawford	1935	145	8	Kea	1,042	68.5 64.9	Aug. 20, 1937 Feb. 10, 1970	P,W	U	3/ 6/
* 201	C.H. Adams	--	1934	500	4	Kea	1,085	190	July 1939	P,W	D,S	
* 202	O. Rizo	Crawford	1953	205	7	Kea	1,060	60.5 45.1	Aug. 2, 1968 Aug. 5, 1968	J,E 1/2	S	Cased to 100 ft. Pump set at 62 ft. Measured drawdown 14.9 ft after 1 hour pumping 10 gpm. Temp. 24°C.
* 203	E. Contreras	Ort	1954	280	6	Kea	1,020	70	Aug. 1968	S,E 3/4	D	Cased to 100 ft. Pump set at 180 ft. Temp. 24°C.
* 204	E.W. Harris	Crawford	Old	285	8	KQ, Kea	1,080	41.2	Aug. 20, 1969	J,E 3/4	D	
* 205	U.S. Air Force	Wiegand Brothers	1942	750	8	Kea	1,057	70.6 62.6	Aug. 23, 1954 Dec. 31, 1969	N	U	Drilled to 860 ft; plugged back to 750 ft. Cased to bottom. Perforated from 300 to 575 ft. Measured drawdown 13.5 ft after 48 hours pumping 330 gpm, June 10, 1942. Supplied water for airbase. Abandoned. 2/ 3/ 6/
206	T.R. Brite Est.	--	--	1,200	8	Kea	1,050	111.5 96.0 95.9 93.9	Oct. 1, 1964 July 2, 1968 Jan. 6, 1969 Aug. 20, 1969	P,W	S	Oil test; converted to water well. Pump set at 190 ft. Water has odor of hydrogen sulfide. ID-149. Temp. 27°C.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

	WELL	OWNER OR NAME OF WELL	DRILLER	DATE COM-PLET-ED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEAR-ING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
							Val Verde County						
	YR-70-42-206	Tiger Minerals, Inc. B.S. Harrison Well 1	Tiger Minerals, Inc.	1956	1,106	--	--	1,050	--	--	--	--	Oil test. 1
*	208	U.S. Air Force	Wiegand Brothers	1942	635	13	Kea	1,055	80.0	Aug. 18, 1942	N	U	Cased to 145 ft. Measured drawdown 79 ft after 48 hours pumping at 350 gpm. Aug. 18, 1942. Water samples collected during drilling of well. Supplied water for air base. Abandoned. 2
*	209	do.	do.	1942	710	13	Kea	1,105	129.5	July 29, 1942	N	U	Cased to 208 ft. Measured drawdown 37 ft after 48 hrs. pumping 475 gpm. Water samples collected during drilling of well. Plugged and abandoned because of mineralized water in Kiamichi Formation. 2
*	301	Joe York, Jr.	--	Old	60	6	KQ	1,105	38.6 39.5	Aug. 20, 1937 Apr. 7, 1942	P,W	S	Cased to bottom and perforated. Temp. 22°C. 3 6
*	401	W.L. Moody IV	--	--	1,600	--	Kea	1,050	--	--	P,W	S	Reported discharge 2 gpm. ID-665-68. Temp. 27°C.
	601	Voss Ranch	--	--	Spring	--	KQ	--	+	--	Flows	D	Estimated flow 50 gpm, Sept. 24, 1968. Reported ceased flowing in 1955-56.
*	43-101	Joe York, Jr.	Plateau Oil Co.	1926	3,507	10	Kea	1,111	101.9	July 27, 1939	P,W	S	Oil test; converted to water well. Cased to 600 ft. Temp. 26°C.
*	50-301	W.L. Moody	--	--	100	--	Kbo	865	21.5	June 25, 1965	P,W	S	Measured discharge 5 gpm. Water has odor of hydrogen sulfate. ID-665-72. Temp. 23°C. 7
*	71-03-101	Mrs. M.B. Cox	--	1938	1,100	8	Kea, Kgr	1,910	650	Oct. 25, 1968	P,W	S	Reported very small supply of water. ID-29.
	102	do.	--	Old	833	8	Kea	1,890	650	do.	P,W	S	Pump set at 740 ft. Reported discharge 5 gpm.
	103	do.	--	--	500	8	Kea	1,775	547.0	Feb. 12, 1959	--	U	Drilled to 700 ft; caved at 500 ft. ID-77.
	201	do.	Placker	Old	945	8	Kea	1,850	654	Oct. 1968	P,W	S	Deepened from 797 ft to 945 ft in 1964. Pump set at 880 ft. ID-48.
*	301	W.A. Arledge	--	--	917	6	Kea	1,940	620	Mar. 1950	P,W	D	Reported discharge 5 gpm. ID-34. Temp. 27°C.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-71-03-401	S.P. Railroad	--	--	1,000	6	Kea	1,790	900	Apr. 1939	N	U	Cased to 900 ft. Reported discharge to 60 gpm. Well destroyed.
402	do.	--	1944	1,000	10	Kea	1,810	644	Jan. 1, 1944	S,E 3	P	Cased to bottom and slotted. Reported discharge 20 gpm. Temp. 26°C.
501	W. Arledge	W.S. Seward	--	685	6	Kea	1,855	642.6	June 9, 1950	P,W	S	ID-300.
701	C. Owens	Crawford	1934	706	8	Kea	1,750	642.7 574.1	do. Nov. 29, 1966	P,W	S	Reported discharge 7 gpm. ID-39.
801	D. Winters	--	1928	800	--	Kea	1,680	425	Aug. 1950	P,W	D	ID-41. Temp. 25°C.
04-101	L. Henderson	Crawford	1939	404	8	Kea	1,800	372.6	June 6, 1951	P,W	S	Pump set at 383 ft. ID-60.
301	J. Cox	Snow	1932	700	6	Kea	1,820	400	Sept. 1968	P,W	S	Reported discharge 5 gpm. ID-67.
401	L.E. Henderson	--	1915	600	8	Kea	1,700	338.9	Aug. 27, 1969	P,W	S	ID-61.
402	I.B. Newman	Lonnie Crawford	1946	400	8	Kea	1,600	202.9	May 11, 1967	--	--	Pump set at 400 ft. Reported water encountered at 370 ft and rose to within 303 ft of land surface. ID-145. 3 4/
501	Phantom Oil Co. I.F. Ingram Well 1		1930	3,010	--	Kea	1,487	--	--	--	--	Oil test.
701	M. Rose	--	1915	700	8	Kea	1,550	282.1 280.5 276.6 274.7	May 11, 1967 Dec. 12, 1968 May 19, 1969 Nov. 20, 1969	S,E	S	Pump set at 340 ft. Reported discharge 3 gpm. ID-62. 4/
801	J. Ingram	Snow	1927	480	6		1,596	405.0	Feb. 7, 1950	P,W	S	Pump set at 460 ft. Temp. 26°C. ID-68.
50-401	Cockburn Ingram Well 1	Cockburn	1943	1,885	--	--	1,662	--	--	--	--	Oil test.
501	I.F. Ingram	Snow	--	480	7	Kea	1,800	460	Feb. 1950	P,W	S	ID-84. Temp. 26°C.
801	L. Hinds	do.	1926	600	7	Kea	1,640	380	do.	P,W	S	ID-93. 25°C.
06-201	J.T. Mayfield	--	1952	600	7	Kea	1,780	337.3	May 22, 1969	P,W	S	Deepened from 550 ft to 600 ft in 1952. No measurable drawdown after pumping 1/2 hour at 1 gpm. ID-87.
202	do.	--	1952	600	6	Kea	1,760	560	May 1969	P,W	S	Pump set at 550 ft. Reported very small supply. ID-160.
203	do.	E. Crawford	1946	900	8	Kea	1,6[illegible]	550	do.	P,W	S	Pump set at 550 ft. Reported discharge 3 gpm. ID-161.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties—Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
					Val Verde County							
* YR-71-06-601	J.T. Mayfield	--	1902	430	8	Kea	1,731	234.4 230.0 231.6	Sept. 6, 1939 July 12, 1961 May 22, 1969	T,E	S	Cased to 250 ft. ID-86-A.
* 07-301	W.H. Baker	--	1890	40	3	KQ	1,520	36.4	Aug. 16, 1968	P,W	D	Pump set at 40 ft. ID-196. Temp. 23°C.
* 401	R.W. Prosser	--	1898	600	7	Kea	1,850	400	Aug. 1969	P,W	D,S	ID-109. Temp. 23°C.
501	M. Rose, Jr.	--	--	400	7	Kea	1,825	320.0 321.9 319.7	Aug. 16, 1950 Oct. 19, 1967 Aug. 16, 1968	P,W	S	Pump set at 324 ft. ID-281.
601	do.	L. Daniels	1939	350	7	Kea	1,620	127.8 123.3	Feb. 3, 1968 Dec. 3, 1969	P,W	S	Pump set at 306 ft. No measurable drawdown after pumping many hours at 2 gpm. ID-283. 3 4
602	W.T. Baker	--	--	58	7	KQ	1,520	28.2	Aug. 16, 1968	P,W	S	Dug to 32 ft; drilled from 32 ft to bottom. Pump set at 42 ft. ID-200.
* 701	H.A. Baker Ranch	Strickland	1919	600	8	Kea	1,727	290.1	Aug. 22, 1968	P,W	S	No measurable drawdown after pumping 1/2 hour at 3 gpm. ID-105. Temp. 24°C.
801	M. Rose	--	--	390	7	Kea	1,760	311.1 312.9	Oct. 19, 1967 Aug. 22, 1968	P,W	S	ID-279.
901	M. Rose, Jr.	--	--	325	7	Kea	1,600	138.9	Aug. 16, 1968	P,W	S	ID-282.
* 08-801	E.V. Jarrett	--	--	Spring	--	Kea	1,400	+	--	Flows	U	Estimated flow 5 gpm, Sept. 16, 1966. Temp. 23°C.
* 11-101	J.H. Fisher	Snow	1932	750	6	Kea	1,710	620	Feb. 1950	P,W	D	ID-57. Temp 27°C.
* 401	R. Foster	N. Cardwell	1917	750	8	Kea	1,630	450	Aug. 1968	P,E	D	ID-38. Temp. 26°C.
* 402	do.	K.B. Logan	1939	1,100	8	Kea	1,720	650	do.	P,W	S	ID-46. Temp. 27°C.
* 501	Boye Babb, Jr.	Strickland	1922	1,200	8	Kea, Kgr	1,696	559.2	Feb. 17, 1950	S,E 2	S	Reported discharge 10 gpm. ID-47. Temp. 26°C.
502	Meek & Page Boye Babb, Jr. Well 1	Meek & Page	1953	2,605	--	--	1,704	--	--	--	--	Oil test.
* 601	J.H. Fisher	A.F. Holderman	1938	885	8	Kea	1,650	555.4 555.7	Mar. 7, 1952 Jan. 19, 1965	P,W	S	ID-53. Temp. 23°C.
602	Boye Babb, Jr.	Strickland	1922	575	8	Kea	1,610	473.0	Mar. 2, 1950	P,W	S	ID-49.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-71-11-603	Boye Babb, Jr.	International Boundary & Water Commission	1950	462	4	Kea	1,534	401.6 400.6 402.4 400.0	Jan. 15, 1964 Jan. 19, 1965 July 1, 1968 Oct. 6, 1969	N	U	Test hole. ID-3. 4
* 701	R. Foster	E.B. Fuller	1949	250	8	Kea	1,240	200	Aug. 1968	P,W	S	ID-174. Temp. 26°C.
* 801	Boye Babb, Jr.	--	1927	500	6	Kea	1,555	412.3 412.7	Sept. 26, 1932 Mar. 13, 1969	P,W	S	Pump set at 460 ft. No measurable drawdown after pumping 1 hour at 2 gpm. ID-48. Temp. 25°C.
901	do.	H. Gray	1928	500	8	Kea	1,320	202.6 197.5	Mar. 31, 1950 Mar. 12, 1969	P,W	S	No measurable drawdown after pumping many hours at 2 gpm. ID-50.
902	do.	U.S. International Boundary & Water Commission	1950	510	4	Kea	1,532	394.9 393.5	Apr. 25, 1950 Oct. 6, 1969	N	U	Test hole. ID-4. 2 3 4
* 12-201	J. Ingram	Snow	1924	380	6	Kea	1,420	320	Feb. 1950	P,W	S	ID-69.
401	J.H. Fisher	Strickland	Old	700	8	Kea	1,440	305.6 302.0	Apr. 18, 1939 July 9, 1969	P,W	S	ID-54. Temp. 26°C. 3 4
402	Boye Babb, Jr.	W. Crawford	1945	575	8	Kea	1,580	493.1	Mar. 12, 1969	P,W	S	Pump set at 561 ft. Measured drawdown 0.4 ft after pumping many hours at 1 1/2 gpm. ID-51.
* 501	S.P. Railroad	--	--	Spring	--	Kea	1,104	+	--	Flows	U	Measured flow 135 gpm, Apr. 18, 1939. Estimated flow 100 gpm, Mar. 24, 1950. Spring will be covered by Amistad Lake during periods when lake is above elevation 1,104 ft. Temp. 23°C.
* 502	do.	U.S. International Boundary & Water Commission	1967	393	8	Kea	1,402	286.2 284.7 285.3 285.4	Nov. 29, 1967 Dec. 1, 1967 Dec. 18, 1967 Jan. 10, 1968	S,E 1 1/2	P	Cased to 42 ft. Reported discharge 100 gpm when drilled. Reported water encountered at 391 ft and rose to within 286 ft of land surface. ID-667-23. Temp. 24°C. 3 4
503	Texas Highway Dept.	J. Williamson	1967	495	?	Kea	1,311	218.2 176.4	Nov. 28, 1967 Jan. 10, 1968	S,E 1	P	Cased to 103 ft. Reported to drawdown 220 ft after 2 hours pumping 20 gpm when drilled. ID-667-24. 2
* 504	U.S. National Park Service	--	--	Spring	--	Kea	1,120	+	--	Flows	U	Measured flow 5 gpm, June 24, 1968. Spring will be covered by Amistad Lake during periods when lake is above elevation 1,120 ft. Temp. 24°C.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-71-13-101	J. Ingram	Snow	1923	360	6	Kea	1,580	535.4	Feb. 14, 1950	P,W	S	Reported very small supply of water. ID-74.
201	C.A. Mauer J.W. Ingram Well 1	C.A. Mauer	1947	2,030	--	--	1,564	--	--	--	--	Oil test.
* 401	A.L. Brown Est.	Snow	1920	750	6	Kea	1,450	396.8	May 22, 1939	P,W	D,S	ID-72. Temp. 25°C.
* 601	H. Martin	Joe Daniels	1939	565	7	Kea	1,450	407.1	June 16, 1939	P,W	S	Pump set at 420 ft. ID-236.
* 801	Ross Estate	A.F. Henderson	1927	1,213	8	Kea	1,430	359.3 356.9	Nov. 17, 1964 Nov. 20, 1969	P,W	D,S	Reported discharge 3 gpm. ID-75. 3 4
* 14-201	H. Martin	Strickland	1905	480	7	Kea	1,559	397.2 397.4 396.5	Apr. 16, 1950 June 30, 1964 Aug. 30, 1969	P,E	D,S	No measurable drawdown after pumping 1/2 hour at 12 gpm, Aug. 30, 1969. ID-233.
301	do.	do.	1919	520	8	Kea	1,486	320	Aug. 1968	P,W	S	Pump set at 380 ft. Reported very small supply of water. ID-108
501	do.	do.	--	618	7	Kea	1,520	408.1 404.9	Nov. 26, 1951	P,W	S	Pump set at 600 ft. Measured drawdown 6.1 ft after many hours pumping 2 gpm, June 30, 1964. ID-235.
* 701	A.C. Bell	Keltner Drilling Co.	1965	693	8	Kea	1,405	332.8	June 4, 1965	S,E 1 1/2	D	Test hole. Cased to 17 ft. Measured drawdown 1.6 ft after 4 hours pumping 20 gpm. WO-9. Temp. 26°C. 3
* 702	do.	do.	1965	640	8	Kea	1,395	326.5 322.0 324.5 317.6	July 1, 1968 July 9, 1969 Dec. 2, 1969 Dec. 9, 1969	N	U	Test hole; cased to 10 ft. WO-9A. 4
901	J. Kelly Estate	E. Burchett	--	200	8	Kea	1,440	221.4	Nov. 7, 1951	P,W	S	ID-130.
15-101	H.A. Walker Ranch	Boykin	1920	500	6	Kea	1,686	289.7	Aug. 22, 1968	P,W	S	Pump set at 420 ft. No measurable drawdown after pumping 1/2 hour at 2 gpm. ID-104.
102	do.	J.T. Crawford	1944	637	8	Kea	1,611	384.1	June 30, 1964	P,W	S	Reported water encountered at 640 ft and rose to within 385 ft of land surface. ID-107.
* 201	M. Rose, Jr.	--	Old	400	7	Kea	1,720	319.3	Oct. 19, 1967	P,W	S	Measured drawdown 0.3 ft after many hours pumping 2 1/2 gpm. ID-278. Temp 24°C.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-71-15-202	H.A. Walker Ranch	W.S. Seward	1960	795	8	Kea	1,760	400	Nov. 1960	P,W	S	Cased to 5 ft. Pump set at 755 ft. Reported discharge 7 gpm when drilled. ID-664-9. 2/
203	do.	Strickland	1919	600	8	Kea	1,666	440.9 460.8	Aug. 22, 1968	P,W	S	Pump set at 480 ft. Measured drawdown 17.4 ft after 1/2 hour pumping 3 gpm. ID-103.
401	do.	--	1900	550	6	Kea	1,537	350	Sept. 1939	S,E I	D	Pump set at 484 ft. ID-102. Temp. 24°C.
402	P.W. Kelly	Boykin	--	900	8	Kea	1,680	432.3 436.5	Mar. 15, 1950 Aug. 23, 1968	P,W	S	Pump set at 550 ft. Reported discharge 15 gpm. ID-122.
501	Frank Greenwood, Jr.	A.P. Holderman	--	710	8	Kea	1,696	396.8 398.4	Jan 29, 1965 Dec. 31, 1969	N	U	ID-245. 3/ 4/
601	do.	Strickland	--	725	8	Kea	1,810	350	Jan. 1967	P,E	S	Pump set at 725. ID-244.
701	P.W. Kelly	E. Burchett	1910	800	8	Kea	1,678	399.0 452.2 447.0 442.1	May 3, 1939 June 20, 1968 July 7, 1969 Dec. 4, 1969	P,W	S	Pump set at 525 ft. No measurable drawdown after pumping 24 hours at 1 1/4 gpm. ID-123. Temp. 27°C. 4/
702	do.	--	--	400	8	Kea	1,520	345.4 345.0 341.0 337.8	June 30, 1964 June 20, 1968 July 7, 1969 Dec. 4, 1969	P,W	S	Pump set at 325 ft. ID-124. 4/
901	Mrs. A.A. Baker	Boykin	1926	1,050	7	Kea	1,945	732.0	Apr. 27, 1950	S,E	S	Reported discharge 10 gpm. ID-209. Temp. 22°C.
16-101	A R. Brotherton	Edwards	1912	337	7	Kea	1,630	284.8	July 14, 1961	S,E	S	Pump set at 315 ft. Reported water encountered at 330 ft. ID-151.
102	Frank Greenwood, Jr.	--	--	700	7	Kea	1,680	366.0 370.8 368.0 364.2	Aug. 31, 1965 July 2, 1968 July 8, 1969 June 11, 1969	P,W	D,S	Pump set at 600 ft. ID-247. Temp. 24°C. 4/
401	do.	--	--	450	8	Kea	1,640	403.9	June 30, 1965	P,W	S	Measured drawdown 24.1 ft after many hours pumping 3 gpm. ID-249. Temp. 24°C.
402	A.R. Brotherton	Jack Daniels	1937	666	8	Kea	1,730	469.4 461.3	July 28, 1965 Dec. 9, 1969	P,W	S	Pump set at 500 ft. ID-152. 3/ 4/
403	Frank Greenwood, Jr.	--	--	691	7	Kea	1,800	561.1	June 30, 1965	P,W	S	Measured discharge 0.7 ft after 10 minutes pumping 3 1/2 gpm. June 30, 1965. ID-248. Temp. 23°C.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
						Val Verde County						
YR-71-16-501	A.R. Brotherton Estate	H. Crawford	1940	547	8	Kea	1,640	398.1 400.1 400.1 400.6	July 1, 1965 July 2, 1968 July 8, 1969 June 11, 1969	P,W	S	Pump set at 447 ft. Reported water encountered at 447 ft and rose to within 398 ft. ID-158. 4/
601	Madison & Almond	San Crites	1950	565	--	Kea	1,631	410.0	Sept. 20, 1950	N	U	Reported water encountered at 525 ft and rose to within 410 ft of land surface. ID-385. 2/ 7/
* 801	A.R. Brotherton	--	1900	550	8	Kea	1,560	247.8	Aug. 29, 1939	P,W	D,S	Pump set at 400 ft. ID-157.
802	R. Brotherton	--	--	496	--	Kea	1,476	329.5 331.1 339.3 324.1	June 15, 1965 July 1, 1968 July 1, 1969 May 25, 1969	N	U	ID-238. 4/
901	Madison & Almond	Sam Crites	1950	570	--	Kea	1,576	421.0	Sept. 20, 1950	P,W	S	Reported water encountered at 555 ft and rose to within 420 ft of land surface. ID-347. 2/ 7/
* 21-301	Mrs. M.Z. King	--	1938	800	8	Kea	1,460	440.5 442.8 414.0 407.0	Aug. 8, 1950 July 1, 1968 July 9, 1969 Nov. 20, 1969	S,E	D	Pump set at 510 ft. No measurable drawdown after pumping 1/2 hour at 9 1/2 gpm, July 1, 1968. ID-76. Temp. 26°C. 4/
22-301	A.F. Baby	--	1924	600	6	Kea	1,530	410.0	June 30, 1964	P,W	S	Pump set at 540 ft. Measured drawdown 99 ft after many hours pumping 2 gpm. ID-118. Temp. 24°C. 7/
401	Mrs. E.P. Bell	Snow	1928	650	6	Kea	1,400	145.4	May 11, 1964	P,W	D,S	Pump set at 600 ft. ID-113.
402	A.C. Bell	R.L. Magness	1958	159	--	Kea	1,324	70.0	May 7, 1964	P,W	S	ID-621.
* 601	Mrs. M.Z. King	Daniels	1940	550	8	Kea	1,390	315.0	June 30, 1964	P,W	S	Pump set at 480 ft. Measured drawdown 4.8 ft after 8 hours pumping 1 1/4 gpm. Reported water encountered at 400 ft and rose to within 315 ft of land surface. ID-143. Temp. 26°C.
* 602	Mrs. K.Z. Kesler	U.S. International Boundary & Water Commission	1950	460	4	Kea	1,404	66.7 60.2 58.9 60.5	Jan. 15, 1964 Sept. 8, 1966 July 1, 1968 Dec. 9, 1969	N	U	Cased to 50 ft. Deepened from 463 to 822 ft in 1964. Plugged back to 460 ft. Well taps perched water table in Georgetown Limestone. Temp. 24°C. 3/ 4/ 7/
* 801	Mrs. E.Z. King	do.	1950	800	4	Kea	1,312	290.5 297.4 246.3 236.2	Nov. 19, 1964	N	U	Test hole; deepened from 352 to 854 ft; plugged back to 800 ft in 1964. Water samples collected during drilling of well. ID-1. Temp. 26°C. 4/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-71-22-901	Mrs. E.Z. King	Daniels	1939	550	8	Kea	1,370	382.0 383.9	Apr. 13, 1950	P,W	S	Pump set at 450 ft. Reported water encountered at 450 ft. ID-142. 7/
* 23-101	P.W. Kelly	Murchison	1900	610	--	Kea	1,670	445.4 453.2	June 3, 1966	P,W	D,S	Reported discharge 7 1/2 gpm. Reported water became highly mineralized in June 1968. Temp. 25°C.
* 102	Mrs. A.F. Haby	Wagner	1946	800	--	Kea	1,600	402.1 410.1 401.0 394.0	Dec. 4, 1964 July 1, 1968 July 9, 1969	T,E	D,S	Measured drawdown 161 ft after 17 hours pumping 13 gpm, Dec. 4, 1964. Reported water encountered at 400 ft. ID-613. Temp. 28°C. 4/
* 103	P.W. Kelly	Hicks & Puckett Drilling Co.	1965	1,070	12	Kea	1,800	605.4	Sept. 2, 1965	P,W	S	Cased to 3 ft. Measured discharge 200 gpm when drilled. Reported water encountered at 1,040 ft. ID-665-79. Temp. 23°C. 7/
* 301	R.C. Robertson	E. Crawford	1943	967	8	Kea	1,720	510.6	Apr. 11, 1950	S,E 10	D	Pump set at 400 ft. Reported discharge 40 gpm. Formerly supplied water for city of Comstock. Reported water encountered at 950 ft. ID-132. Temp. 24°C.
* 302	Mrs. A.A. Baker	H. Gray	1959	1,160	8	Kea	1,800	700	Nov. 1964	S,E	D,S	Cased to 700 ft. Pump set at 740 ft. Measured discharge 11 gpm, Jan. 21, 1970. ID-629. Temp. 25°C.
401	E.M. Zuberbueler	Boykin	1924	650	--	Kea	1,460	250.4 252.8 244.0 235.2	Sept. 14, 1965 July 1, 1968 July 7, 1969 Dec. 9, 1969	P,W	D,S	Pump set at 338 ft. Measured discharge 9 gpm, Sept. 14, 1965. Reported water encountered at 150 ft and rose to within 640 ft of land surface. ID-141. 4/
* 501	K. Humphries	H. Edwards	Old	401	4	Kea	1,544	343.9	Mar. 1, 1950	N	U	Well destroyed because of inadequate yield. Formerly supplied water for city of Comstock. Reported discharge 9 gpm. ID-128.
* 502	City of Comstock	Hicks & Puckett Drilling Co.	1965	570	8	Kea	1,535	336.4	Aug. 31, 1965	S,E	P	Cased to 350 ft. No measurable drawdown after pumping 2 hours at 163 gpm, Sept. 3, 1965. ID-665-77. Temp. 23°C.
503	Husky Oil Co. Rose-Robertson Well 1	Husky Oil Co.	1951	2,426	--	--	1,567	--	--	--	--	Oil test. 1/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COM-PLET-ED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEAR-ING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL		METHOD OF LIFT	USE OF WATER	REMARKS
								ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	DATE OF MEASUREMENT			
Val Verde County												
YR-71-23-504	P.W. Kelly	Hicks & Puckett Drilling Co.	1965	1,101	10	Kea	1,540	338.9 341.8 327.0 320.1	Aug. 24, 1965 July 1, 1968 July 1, 1969 Dec. 9, 1969	N	U	Reported water encountered at 638 ft. Cased to 11 ft. Reported discharge 10 gpm when drilled. ID-665-76. 4/
505	City of Comstock	do.	1965	960	7	Kea	1,580	372.2	Mar. 11, 1965	N	U	Well abandoned because of inadequate yield. Cased to 40 ft. Measured drawdown 558 ft after 3 1/2 hours pumping 7.5 gpm. ID-665-53. Temp. 28°C. 2/
601	F.H. Whitehead	Lonnie Crawford	1944	250	8	Kea	1,610	189.7	July 28, 1964	P,W	S	Reported water encountered at 225 ft. Pump set at 225 ft. ID-183. 2/
* 801	R.C Robertson	Boykin	1924	320	--	Kea	1,360	300.4	June 21, 1964	P,W	S	ID-135. Temp. 26°C.
802	Mrs. F.K. Rose	Barrow Drilling Co.	1958	830	8	Kea	1,420	352.5 356.4 314.4 305.4	June 24, 1966 July 1, 1968 July 1, 1969 Dec. 10, 1969	N	U	Oil test converted to water well. Drilled to 2,485 ft; plugged back to 830 ft. ID-666-32.
803	do.	Jack Daniels	1965	575	--	Kea	1,510	372.2	June 20, 1966	S,E	S	Pump set at 510 ft. Measured drawdown 23.4 ft after 61 hours pumping 17.8 gpm. ID-665-15. Temp. 26°C. 2/ 3/
* 901	F.H. Whitehead	Crawford	1931	690	--	Kea	1,480	406.9 410.4 409.4 376.0	Apr. 17, 1950 June 30, 1964 July 1, 1968 July 8, 1969	P,W	S	Pump set at 400 ft. ID-186. Temp. 22°C. 4/
* 902	Mrs. F.K Rose	Jack Daniels	1965	500	7	Kea	1,420	380.2	Feb. 15, 1965	S,E	S	Reported water encountered at 380 and 390 ft. Reported discharge 13 gpm. ID-665-22. 2/ 3/
* 24-101	R. Brotherton	--	--	--	--	Kea	1,625	--	--	P,W	S	ID-665-59.
* 301	R. Gillis	--	--	Spring	--	Kea	1,160	+	--	Flowa	U	Estimated flow 81 gpm. July 19, 1939 and 100 gpm. Oct. 4, 1967. Temp. 24°C.
302	Shell Oil Co. L. Hinds Well 1	Shell Oil Co.	1962	392	--	Kea	1,170	--	--	N	U	Test hole. Reported base of Fredericksburg Group at 320 ft.
401	R. Gillis	--	--	100	--	Kea	1,560	13.3 9.0	July 27, 1964 July 28, 1968	P,W	S	Reported discharge 40 gpm. ID-216. 2/
* 501	do.	J. Daniels	1938	731	8	Kea	1,520	395.8 379.6 387.6	July 27, 1964 Aug. 29, 1966 Sept. 13, 1966	P,W	S	Reported encountered water at 650 ft. Pump set at 560 ft. Measured drawdown 153.2 ft after 4 2/3 hours pumping 11 1/2 gpm. July 24, 1964. ID-211. Temp. 26°C. 2/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

	WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
						Val Verde County							
	YR-71-24-502	Gillis Estate	Seward	--	802	8	Kea	1,500	409.8	July 24, 1964	P.W	S	ID-664-20. 7
	701	R. Gillis	Shell Oil Co.	1967	1,027	7	Kea	1,480	426.6 396.0	Jan. 16, 1968 Sept. 29, 1968	P.W	S	Supplied water for drilling oil test. Converted to ranch use. Reported discharge 12 gpm when drilled. ID-668-2.
	702	S.L. & F.H. Whitehead	T. Letsinger	1963	596	6	Kea	1,420	395.5 341.5	May 14, 1964 Apr. 8, 1970	P.W	S	Cased to 12 ft. Pump set at 580 ft. Reported discharge 12 gpm. ID-627. 3 4
	703	F.H. Whitehead	--	--	100	8	Kbu	1,440	10.0	July 28, 1964	P.W	S	Pump set at 40 ft. ID-185. 7
	30-201	Mrs. S.Z. Skehan	Jack Daniels	1950	425	6	Kea	1,263	281.1 279.3 271.9	Nov. 14, 1950 May 7, 1964 Aug. 24, 1968	P.W	S	Reported encountered water at 335 ft. Cased to 18 ft. ID-614.
*	31-101	J.H. Kelly et al	Keltner Drilling Co.	1965	871	8	Kea	1,269	261.5 258.8 258.9 201.6	July 7, 1965 Jan. 1, 1967 July 1, 1968 July 1, 1969	N	U	Test hole. Cased to 139 ft. Measured drawdown 3 ft after 4 hours pumping 27 gpm. Water samples collected during drilling of well. WO-2. Temp. 25°C. 4 7
*	201	P. Rose	Burchard	1919	580	--	Kea	1,180	186.2	Apr. 12, 1939	P.W	S	Pump set at 250 ft. ID-163.
	202	do.	--	--	600	--	Kea	1,300	317.5	July 23, 1964	P.W	S	Pump set at 360 ft. Measured drawdown 1.8 ft after many hours pumping 2 gpm. ID-164. 7
*	301	Homer Holman	Keltner Drilling Co.	1965	1,000	8	Kea	1,349	320.0 266.8	Sept. 9, 1965 Dec. 10, 1969	N	U	Test hole. Cased to 176 ft. Measured drawdown .76 ft after 4 hours pumping 19 gpm. Sept. 9, 1965. Water samples collected during drilling of well. WO-3. Temp. 28°C. 3 4
*	401	Mrs. C.G. Fay	Keltner Drilling Co.	1964	920	8	Kea	1,184	210.4 114.4	Dec. 17, 1964 Dec. 31, 1969	N	U	Test hole. Cased to 11 ft. Measured drawdown 14 ft after 4 hours pumping 25 gpm, Dec. 17, 1964. Water samples collected during drilling of well. WO-1. Temp. 25°C. 3 4
*	801	Box Canyon Estates	Jack Daniels	1966	410	10	Kea	1,180	219.6 216.3 118.0 116.4	Mar. 1968 June 28, 1968 July 7, 1969 Aug. 14, 1969	S.S 3	P	Cased to 10 ft. Pump set at 278 ft. Reported water encountered at 375 ft. ID-668-41. Temp. 26°C.
	901	W.T.O. Holman Estate	Tex. Gas Utilities	1945	439	10	Kea	1,269	311.3 200.0	Mar. 9, 1950 Dec. 31, 1969	N	U	Oil test; converted to water well. Drilled to 560 ft; plugged back to 430 ft. Reported water encountered at 450 ft. ID-170. 3 4

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
						Val Verde County						
YR-71-31-902	W.T.O. Holman Estate	U.S. International Boundary & Water Commission	1950	286	4	Kea	1,162	220.0 209.3 100.0 97.7	Jan. 15, 1964 July 1, 1968 July 7, 1969 Sept. 11, 1969	N	U	Test hole. Cased to 110 ft. ID-9. 2/ 4/
903	do.	E. Mills	1928	470	8	Kea	1,220	277.5	Feb. 13, 1952	P,W	D,S	Pump set at 360 ft. Reported water encountered at 280 and 450 ft. ID-168. 2/
* 32-101	B.L. & F.H. Whitehead, Jr.	--	--	640	--	Kea	1,380	323.3 341.0 303.0 288.1	Nov. 17, 1964 July 2, 1968 July 8, 1969 Dec. 4, 1969	P,W	D	Pump set at 350 ft. ID-187. 4/
* 102	Massie West	Crawford	1938	650	--	Kea	1,390	355.7	July 28, 1964	P,W	S	Reported water encountered at 500 and 600 ft. ID-191.
* 201	B.L. & F.H. Whitehead, Jr.	Moore	--	525	7	Kea	1,365	295.9	May 12, 1950	P,W	S	Pump set at 380 ft. Reported water encountered at 175, 320, and 500 ft. ID-193.
* 301	J.B. Sellers	--	1919	620	7	Kea	1,400	400	May 1969	S,E 2	D	ID-664-16. Temp. 26°C.
302	do.	Joiner Oil Co.	1940	335	--	Kea	1,291	263.8 224.9	June 30, 1964 Dec. 5, 1969	N	U	Oil test; converted to water well. Drilled to 2,250 ft; plugged back to 335 ft. ID-664-12. 3/ 4/
303	Hiawatha Oil Co. J.B. Sellers Well 1	Hiawatha Oil Co.	1926	3,502	--	--	1,205	--	--	--	--	Oil test.
* 401	W.T.O. Holman Estate	S.P. Railroad	1900	525	8	Kea	1,250	236.2 183.7	July 23, 1964 Dec. 9, 1969	P,W	D	Pump set at 360 ft. ID-166. Temp. 26°C. 3/ 4/
501	Massie West	Crawford	--	800	8	Kea	1,310	270.6 276.5 252.3 243.8	Jan. 21, 1965 June 10, 1968 July 16, 1969 Dec. 3, 1969	P,W	S	Pump set at 300 ft. Reported water encountered from 500 to 600 ft. ID-189. 4/
601	C. Sellers	do.	--	248	8	Kea	1,214	183.8 178.7 156.9 149.1	June 30, 1964 June 28, 1968 July 7, 1969 Dec. 10, 1969	P,W	D,S	Pump set at 100 ft. Reported water encountered at 100 ft. ID-188. 4/
* 701	W.T.O. Holman Estate	E.T. Williams	1924	451	8	Kea	1,293	236.2	Aug. 1, 1939	P,W	S	Oil test; converted to water well. Drilled to 2,110 ft; plugged back to 451 ft. Reported water encountered at 280 and 451 ft. ID-167.
* 801	Mrs. S.T. Wright	--	1900	650	6	Kea	1,176	195.8	Aug. 1, 1939	P,W	U	Cased to 20 ft. ID-229.

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
						Val Verde County						
YR-71-32-802	Mrs. S.T. Wright	G. Crystal	--	600	6	Kea	1,128	136.6 152.4 158.2 153.4	June 26, 1964 Jan. 21, 1965 Jan. 24, 1966 Sept. 13, 1966	P,W	S	Pump set at 188 ft. ID-309. 4/ 7/
40-101	F. Figueroa	do.	1938	450	8	Kea	1,165	240.9 122.0 104.0 98.0	June 29, 1964 Nov. 13, 1968 July 7, 1969 Nov. 6, 1969	P,W	S	ID-230. 4/ 7/
201	Mrs. S.T. Wright	--	--	--	--	Kea	1,170	237.8 126.9 111.0 103.6	June 26, 1964 Dec. 5, 1968 July 7, 1969 Dec. 4, 1969	P,W	S	ID-664-10. 4/ 7/
202	F. Figueroa	R.S. Seward	--	400	8	Kea	1,133	206.9 89.2 70.1 64.4	June 29, 1964 Dec. 13, 1968 July 7, 1969 Nov. 6, 1969	P,W	S	Pump set at 220 ft. Reported water encountered at 390 ft. ID-231. 4/ 7/
* 302	U.S. International Boundary & Water Commission	Hunt	1962	455	14	Kea	1,157	229.3 218.0 217.3 222.3	Jan. 5, 1962 Jan. 7, 1962 Jan. 23, 1962 Jan. 6, 1964	S,E 30	P	Cased to 105 ft. Pump set at 430 ft. Measured drawdown 84.0 after 25 hours pumping 210 gpm, Jan. 5, 1962. ID-500.
* 303	U.S. National Park Service	L. McNamara	1964	480	8	Kea	1,170	210.8 218.1 195.1 118.1	Oct. 19, 1964 Aug. 1, 1967 July 11, 1968 Jan. 9, 1969	S,E 30	P	Cased to 10 ft. Measured drawdown 212.7 ft after 8 hours pumping at 172 gpm. ID-664-65. Temp. 25°C.
304	Amistad Land Co.	--	--	--	3	Kea	1,195	247.1 147.8	June 30, 1964 Mar. 10, 1970	P,W	S	Pump set at 215 ft. Measured drawdown 1.0 ft pumping at 3 gpm, July 30, 1964. ID-396. 3/ 4/
* 501	U.S. International Boundary & Water Commission	U.S. International Boundary & Water Commission	1964	400	4	Kea	1,010	97.7 91.7 91.8 95.3	June 17, 1964 July 23, 1964 Aug. 18, 1964 Sept. 9, 1964	N	U	Test hole; cased to 10 ft. Drilled to 325 ft in 1950. Deepened to 425 ft in Georgetown Limestone in 1952. Deepened to 761 ft into the Edwards Limestone on June 19, 1964. Plugged back to Georgetown Limestone at 400 ft in Sept. 1964. Samples collected during drilling of well. ID-13.
601	B.M. Brite	Hicks & Puckett Drilling Co.	1965	428	6	Kea	1,060	153.2 143.0 6.4 1.6	May 19, 1967 July 2, 1968 July 1969 Nov. 25, 1969	N	U	
602	U.S. International Boundary & Water Commission	Keltner Drilling Co.	1962	448	--	Kea	1,148	204.1 92.4	June 13, 1966 Dec. 31, 1969	N	U	Formerly supplied water for grouting operations at Amistad Dam. ID-666-31. 3/ 4/

See footnotes at end of table.

Table 4.--Records of Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	OWNER OR NAME OF WELL	DRILLER	DATE COMPLETED	DEPTH OF WELL (FT)	DIAMETER OF CASING OR HOLE (IN.)	WATER-BEARING UNITS	ALTITUDE OF LAND SURFACE (FT)	WATER LEVEL: ABOVE (+) OR BELOW LAND SURFACE DATUM (FT)	WATER LEVEL: DATE OF MEASUREMENT	METHOD OF LIFT	USE OF WATER	REMARKS
Val Verde County												
YR-71-40-603	B.M. Britt	W.S. Seward	1950	126	8	Kea	1,042	77.0	Aug. 9, 1968	P,W	D,S	ID-311. 4/
								51.1	Nov. 6, 1968			
								47.5	Feb. 1, 1969			
								43.9	July 10, 1969			
604	W.S. Stevenson	Daniels	--	240	8	Kea	1,094	113.7	Aug. 14, 1968	P,W	S	Pump set at 150 ft. ID-259. 4/
								83.9	Dec. 2, 1968			
								74.0	July 10, 1969			
								68.8	Dec. 11, 1969			
* 901	Mrs. E. Daughtrey	Keltner Drilling Co.	1965	753	8 4	Kea	920	0.0 + 65.0	Mar. 22, 1965 June 6, 1969	N	S	Test hole. Dual completion well. Water levels of Edwards and Georgetown Limestones measured in same well. Casing: 8-in. to 15 ft. 4-in. from land surface to 373; 4-in. cemented at 373 ft. Water levels shown represent the Georgetown Limestone. See Table 5 for water level measurements representing the Edwards Limestone. 3/ 4/
902	do.	U.S. International Boundary & Water Commission	1952	260	4	Kea	1,007	74.8	June 17, 1964	N	U	Test hole. Cased to 20 ft. ID-21. 2/ 4/
								77.0	July 1, 1968			
								76.8	July 7, 1969			
								74.6	Dec. 11, 1969			
* 903	P. Briggs	--	--	Spring	--	Kea	910	+	--	Flows	S	Average discharge for 1966-67 period was 507 gpm. McKee Springs. Measurements published By International Boundary & Water Commission.
* 904	Mrs. E. Daughtrey	E.F. Mills	--	520	8	Kea	940	+	--	Flows	S	Estimated flow 1 gpm. Mar. 14, 1966. OD-238. Temp. 26°C.
48-301	do.	Jack Daniels	1967	233	10	Kea	940	34.3	July 18, 1967	P,W. E	S	Cased to 10 ft. Reported "gyp" water; tested 4 gpm at 150 ft and 25 gpm at 175 ft when drilled. ID-667-10. 2/
Kinney County												
* RP-70-35-801	S.H. Cochrin	W. Seward	1963	80	7	Kbu	1,080	53.7	Aug. 5, 1968	P,W	D	Cased to 50 ft. Reported water encountered at 72 ft. ID-664-58. Temp. 24°C.

* For chemical analyses of water from wells and springs, see Table 7.
1/ Electric or radioactivity logs in files of U.S. Geological Survey, Austin, Texas.
2/ For drillers' logs of wells, see Table 5.
3/ For water-level measurements in wells, see Table 6.
4/ Observation well for the U.S. International Boundary and Water Commission.
5/ Observation well for the Texas Water Development Board.
6/ Observation well for the U.S. Geological Survey.
7/ Assumed measuring point for water level in well was 1.0 feet above land surface.

Table 5.—Drillers' Logs of Wells

Well YR-54-51-701

Owner: Val Verde Oil Corp. Bassett Well 1
Driller: Val Verde Oil Corp.

	THICKNESS (FEET)	DEPTH (FEET)
Lime, white	125	125
Lime, yellow	245	370
Lime, blue	25	395
Lime, gray, sandy	20	415
Lime, blue	10	425
Lime, gray, sandy	25	450
Lime, gray	55	505
Lime, brown	30	535
Lime, gray	10	545
Lime, brown	20	565
Lime, gray	15	580
Lime, brown	20	600
Lime, gray	59	659
Lime, blue	16	675
Shale, lime and shells	10	685
Shale, blue	2	687
Sand, water	3	690
Shale, blue	7	697
Lime, broken	3	700
Shale, blue	14	714
Lime, broken	6	720
Lime, gray	6	726
Shale, sandy	21	747
Shale, blue	5	752
Lime, gray	5	757
Shale, blue	18	775
Lime, white	5	780
Shale, blue and shells	10	790
Rock, red	5	795
Lime, gray	8	803
Rock, red	7	810
Lime	2	812
Rock, red	8	820
Lime, gray	5	825
Lime	10	835

Well YR-54-51-701—Continued

	THICKNESS (FEET)	DEPTH (FEET)
Lime, gray	5	840
Shale, blue	12	852
Lime, gray	5	857
Shale, blue	13	870
Lime, gray	2	872
Shale, blue	26	898
Lime	2	900
Shale, blue	15	915
Shale, sandy	10	925
Shale	30	955
Lime	5	960
Lime, gray	22	982
Shale, blue	6	988
Lime, gray	47	1,035
Shale, dark	3	1,038
Lime, gray	17	1,055
Lime, brown	15	1,070
Shale, gray	5	1,075
Lime, brown	9	1,084
Shale, blue	4	1,088
Lime, gray	37	1,125
Shale, blue	35	1,160
Clay, yellow	10	1,170
Shale, yellow	50	1,220
Slate, yellow	20	1,240
Shale, blue	438	1,678
Lime, brown	10	1,688
Shale, blue	317	2,005
Shale, blue and shells	5	2,010
Shale, blue	360	2,370
Shale, blue and shells	30	2,400
Shale, blue	820	3,220
Shale, blue and shells	15	3,235
Shale, blue	110	3,345
Shale, gray	45	3,390

Table 5.—Drillers' Logs of Wells—Continued

	THICKNESS (FEET)	DEPTH (FEET)
Well YR-54-51-701—Continued		
Shale, blue	170	3,660
Shale, black	200	3,760
Shale, blue	250	4,010
Well YR-70-09-401		
Owner: Mrs. M. Almond Driller: Sam Crites		
Topsoil and boulders	1	1
Lime, yellow	29	30
No record	10	40
Lime, brown	20	60
No record	15	75
Lime, yellow	55	130
Lime, gray; water	90	220
Lime, yellow; water	60	280
Lime, brown; water	50	330
Lime, blue	40	370
Well YR-70-17-101		
Owner: Mrs. M. Almond Driller: Sam Crites		
Topsoil and boulders	1	1
Lime, yellow	14	15
Lime, white	115	130
Lime, yellow	120	250
Lime, white	195	445
Lime, gray	105	550
Lime, blue	75	625
Lime, brown; water	25	650
Well YR-70-27-801		
Owner: Billie C. Lewis Driller: Lonnie Crawford		
Topsoil and boulders	15	15
Clay, yellow	15	30
Shale, blue, seep	50	80
Sandstone	30	110
Lime, yellow	65	175
Cavity	10	185
Lime, gray, seep	200	385
Slate, black, water	5	390
Lime, gray	45	435
Lime, white, water	40	475
Well YR-70-33-501		
Owner: Pruett DeLoach Driller: Jack Daniels		
Caliche	10	10
Lime, yellow	115	125
Lime, gray, seep	105	230
Lime, white, water	180	410
Well YR-70-33-702		
Owner: Mrs. E. Daughtroy Driller: U.S. International Boundary & Water Commission		
Topsoil and caliche	21	21
Georgetown Limestone:		
Limestone, light-gray	60	81
Limestone, light-gray, shaly	174	255
Limestone, light-gray, with black shale seams	65	320
Limestone, light-gray, chalky	130	450
Kiomichi Formation:		
Shale, brown to black, some gypsum and limestone	283	733
Edwards Limestone:		
Limestone, gray, variably solutioned	239	972
Well YR-70-34-402		
Owner: W. Lausen, Jr. Driller: Jack Daniels		
Caliche	30	30
Clay, yellow, hard	50	80
Lime, white	125	205
Lime, yellow	57	262
Well YR-70-34-501		
Owner: J. Lampe Driller: Keltner Drilling Co.		
Caliche, silt, clay	50	50
Silt and limestone	44	94

Table 5.—Drillers' Logs of Wells—Continued

	THICKNESS (FEET)	DEPTH (FEET)
Well YR-70-34-501—Continued		
Georgetown Limestone:		
Limestone, white	16	110
Limestone, light-grey to buff, hard	40	150
Limestone, tan to buff, water	50	200
Limestone, light-gray to gray	30	230
Limestone, tan to buff, fossils common	10	240
Limestone, gray, hard	130	370
Limestone, gray, hard, shaly	183	553
Limestone, buff to orange, trace of chert	23	576
Kiamichi Formation:		
Shale, dark-gray to black, hard, limey, some calcite and fossils	44	620
Cavity	6	626
Edwards Limestone:		
Limestone, gray, dolomitic, vuggy, some chert and fossils	39	665
Limestone, tan to gray, some black limey shale	40	705
Limestone, tan, shaly, some shale and chert	120	825
Well YR-70-42-205		
Owner: U.S. Air Force Driller: Wiegand Brothers		
Caliche and gravel	14	14
Del Rio Clay:		
Clay, yellow, and blue shale	129	143
Georgetown Limestone:		
Limestone, gray	290	433
Limestone	53	486
Limestone with shale	113	599
Limestone and shale	11	610
Chert	18	628
Kiamichi Formation:		
Rock, hard	11	639
Shale, red and green	5	644
Shale, black	30	674
Chert	29	703
Shale	4	707
Limestone and shale	39	746
Edwards Limestone:		
Limestone, hard	90	836
Limestone	12	848
Limestone, hard	12	860
Well YR-70-42-208		
Owner: U.S. Air Force Driller: Wiegand Brothers		
Caliche	5	5
Del Rio Clay:		
Clay, yellow and dark-blue shale	115	120
Shale, dark-blue	21	141
Georgetown Limestone:		
Limestone, gray	239	380
Limestone, gray and dark-gray shale streaks	195	575
Limestone, gray	50	625
Limestone, light-gray to yellow-brown	2	627
Limestone, light-gray to yellow-brown, chert	8	635
Well YR-70-42-209		
Owner: U.S. Air Force Driller: Wiegand Brothers		
Caliche	11	11
Buda Limestone:		
Limestone, light-tan to light-gray, dense	51	62
Del Rio Clay:		
Shale, dark-blue	143	205
Georgetown Limestone:		
Limestone, light-gray	37	242
Limestone, light-gray with dark-gray shale streaks	362	604
Limestone, gray with dark-gray shale streaks	46	650
Kiamichi Formation:		
Shale, dark-gray to dark-brown	58	708
Cavity	2	710

Table 5.--Drillers' Logs of Wells--Continued

Well YR-71-11-902

Owner: Boye Babb, Jr.
Driller: U.S. International Boundary & Water Commission

	THICKNESS (FEET)	DEPTH (FEET)
Boquillas Flags:		
Limestone, light-gray, sandy	63	63
Limestone, dark-gray, shaly, interbedded with black shale	195	258
Buda Limestone:		
Limestone, white, chalky	25	283
Limestone, gray to black, shaly	17	300
Limestone, light-gray, dense	12	312
Georgetown Limestone:		
Limestone, light-gray to white, dense	56	368
Limestone, light-gray to gray	91	459
Limestone, gray to white	21	480
Limestone, light-gray to gray	30	510

Well YR-71-12-502

Owner: S. P. Railroad
Driller: U.S. International Boundary & Water Commission

	THICKNESS (FEET)	DEPTH (FEET)
Boquillas Flags:		
Limestone, tan, sandy, some shale and gypsum	30	30
Buda Limestone:		
Limestone, white, dense	10	40
Limestone, light-gray, dense	30	70
Georgetown Limestone:		
Limestone, gray, sandy	10	80
Limestone, tan to buff	70	150
Limestone, tan to cream, some fossils	50	200
Limestone, gray to brown, sandy	50	250
Limestone, gray, mottled, pyrite inclusions	50	300
Limestone, tan to cream, vuggy, some calcite crystals	40	340
Limestone, white, chalky	51	391
Cavity, water	2	393

Well YR-71-12-503

Owner: Texas Highway Department
Driller: J. Williamson

	THICKNESS (FEET)	DEPTH (FEET)
Topsoil and caliche	3	3
Lime, hard	21	24
Buda Limestone:		
Lime, white, dense, some marl	71	95
Georgetown Limestone:		
Lime, blue-gray, hard	15	110
Lime, tan, soft	20	130
Lime, blue-gray, seep	10	140
Lime, light-tan, soft	20	160
Lime, tan, hard	10	170
Lime, blue-gray, hard	30	200
Lime, tan to blue-gray, hard, seep	50	250
Lime, light-tan, soft	10	260
Lime, blue-gray	40	300
Lime, blue-gray, tan, white, water	60	360
Lime, blue-gray, tan, hard	12	372
Lime, weathered, marly, soft	3	375
Lime, blue-gray, tan, hard, water	100	475
Lime, blue-gray, tan, hard, and thin soft marl seams, water	20	495

Well YR-71-14-701

Owner: A. C. Bell
Driller: Keltner Drilling Co.

	THICKNESS (FEET)	DEPTH (FEET)
Del Rio Clay:		
Clay, tan to gray, sandy, some sandy limestone stringers	12	12
Georgetown Limestone:		
Limestone, gray, dense with occasional chert nodules and vugs	478	490
Kiamichi Formation:		
Limestone, dark-grey, shaly, some chert	110	600
Edwards Limestone:		
Limestone, light-gray, dense, variably vuggy	83	683
Limestone, brown, coarse crystalline, soft, water	10	693

Table 5.—Drillers' Logs of Wells—Continued

Well YR-71-15-202

Owner: H. A. Walker Ranch
Driller: W. S. Seward

	THICKNESS (FEET)	DEPTH (FEET)
Topsoil	3	3
Caliche, yellow	112	115
Lime, broken	25	140
Lime, grey	30	170
Lime, white	125	295
Lime, light-yellow, dense	117	412
Lime, gray	38	450
Lime, white, seep	17	467
Lime, gray	33	500
Shale, blue and lime stringers	20	520
Lime, blue, hard, broken, some calcite crystals	125	645
Lime, gray, hard	20	665
Lime, brown, soft	17	682
Lime, gray, some calcite crystals	13	695
Lime, brown	13	708
Lime, brown, soft, water	22	730
Lime, blue, hard	18	748
Shale, blue and lime stringers	32	780
Lime, blue hard	15	795

Well YR-71-16-601

Owner: Madison and Almond
Driller: Sam Crites

	THICKNESS (FEET)	DEPTH (FEET)
Topsoil and boulders	2	2
Lime, white	8	10
Lime, yellow	25	35
Lime, white	315	350
Lime, brown	40	390
Lime, gray	90	480
Lime, brown, sandy	10	490
Lime, gray	20	510
Lime, brown, sandy, water	45	555
Sand	10	565

Well YR-71-16-901

Owner: Madison and Almond
Driller: Sam Crites

	THICKNESS (FEET)	DEPTH (FEET)
Lime, white	70	70
Lime, yellow	70	140
Lime, white	220	360
Lime, brown	10	370
Lime, white	20	390
Lime, gray	152	542
Sand, water	28	570

Well YR-71-22-602

Owner: Mrs. K. Z. Kesler
Driller: U.S. International Boundary & Water Commission

	THICKNESS (FEET)	DEPTH (FEET)
Buda Limestone:		
Limestone, light-gray, dense	20	20
Del Rio Clay:		
Shale, grey-black, calcareous	28	48
Georgetown Limestone:		
Limestone, light-gray	33	81
Limestone, light-gray to gray, fossils common	45	126
Limestone, light-gray to white, fossils common	116	242
Limestone, light-gray to gray	220	462
Limestone, gray	70	532
Kiamichi Formation:		
Limestone, dark-gray, shaly	84	616
Edwards Limestone:		
Limestone, light-gray	206	822

Well YR-71-23-505

Owner: City of Comstock
Driller: Hicks & Puckett Drilling Co.

	THICKNESS (FEET)	DEPTH (FEET)
Topsoil	2	2
Lime, gray, hard	58	60
Lime, white, medium hard	270	330
Lime, gray, medium hard	290	620
Lime, gray, very hard	20	640
Sand, limey cemented	120	760

Table 5.—Drillers' Logs of Wells—Continued

	THICKNESS (FEET)	DEPTH (FEET)
Well YR-71-23-505—Continued		
Lime and sand streaks	30	790
Lime, blue-gray, hard	50	840
Lime with sand streaks	40	880
Sand, blue-gray cemented	50	940
Lime, gray, broken and shale	20	960
Well YR-71-23-803		
Owner: Mrs. F. K. Rose Driller: Jack Daniels		
Lime, yellow	40	40
Del Rio Clay	30	70
Georgetown Limestone:		
Lime, white	80	150
Cavity; no record	7	157
Lime, white, water	43	200
Lime, gray, water	355	555
Kiamichi Formation	20	575
Well YR-71-23-902		
Owner: Mrs. F. K. Rose Driller: Jack Daniels		
Lime, yellow	40	40
Cavity; no record	3	43
Lime, yellow	57	100
Lime, white	100	200
Well YR-71-23-902—Continued		
Lime, yellow	125	325
Lime, white	50	375
Lime, gray	75	450
Kiamichi Formation	40	490
Water formation	10	500
Well YR-71-31-902		
Owner: W.T.O. Holman Estate Driller: U.S. International Boundary & Water Commission		
Sand, silt and clay	11	11
Limestone, light-gray to chalky-white	132	143
Limestone, light-gray, some thin black shale seams	143	286
Well YR-71-40-902		
Owner: Mrs. E. Daughtrey Driller: U.S. International Boundary & Water Commission		
Limestone, weathered and caliche	5	5
Limestone, light-gray, some clay	105	110
Limestone, gray, occasionally shaly with thin black shale seams	100	210
Limestone, gray with thin black shale seams	50	260

Table 6.—Water Levels in Wells

DATE	WATER LEVEL
Well YR-54-52-301	
Owner: H. E. Arledge	
Jan. 26, 1968	157.55
June 14, 1968	154.6
Aug. 27, 1968	169.07
Sept. 11, 1968	157.6
Dec. 12, 1968	154.0
Jan. 20, 1969	152.6
Apr. 16, 1969	151.9
Aug. 27, 1969	159.1
Nov. 20, 1969	156.53
Well YR-54-52-601	
Owner: George Baker	
May 10, 1939	60.1
Jan. 26, 1968	65.45
June 14, 1968	62.4
Dec. 12, 1968	65.2
May 29, 1969	56.47
Nov. 20, 1969	61.52
Well YR-54-52-602	
Owner: C. Turner	
Jan. 26, 1968	169.07
June 14, 1968	*293.6
July 31, 1968	*293.3
Aug. 16, 1968	*291.5
Sept. 11, 1968	172.02
Dec. 12, 1968	169.03
Jan. 20, 1969	169.6
Mar. 24, 1969	*293.4
Apr. 16, 1969	*295.5
May 9, 1969	*214.38
June 19, 1969	*239.96
Nov. 20, 1969	169.38
Well YR-54-53-201	
Owner: H. E. Arledge	
Jan. 27, 1968	214.05
July 31, 1968	213.9
Sept. 11, 1968	213.9
Dec. 12, 1968	214.0
Apr. 16, 1969	213.9
May 28, 1969	214.1
Nov. 20, 1969	213.94
Well YR-54-53-301	
Owner: H. E. Arledge	
Jan. 27, 1968	294.10
June 14, 1968	294.10
July 31, 1968	293.8
Aug. 16, 1968	293.8
Sept. 11, 1968	294.1
Dec. 12, 1968	293.2
Jan. 20, 1969	293.8
Mar. 24, 1969	294.2
Apr. 16, 1969	295.0
May 19, 1969	293.6
May 28, 1969	296.2
June 19, 1969	*294.8
Nov. 20, 1969	293.97
Well YR-54-54-101	
Owner: A. O. Oberkampf	
Oct. 23, 1967	430.24
June 14, 1968	435.6
Aug. 16, 1968	437.4
Sept. 11, 1968	434.6
Nov. 19, 1968	426.1
Apr. 16, 1969	429.8
May 19, 1969	435.0
Well YR-54-54-501	
Owner: Bill Carson	
May 10, 1939	237.28
May 23, 1968	241.2
June 26, 1968	241.1
Aug. 7, 1968	240.8
Sept. 16, 1968	240.9
Nov. 22, 1968	241.5
Dec. 27, 1968	241.6
Jan. 22, 1969	241.8
Feb. 20, 1969	242.0
Mar. 20, 1969	242.1
Apr. 15, 1969	242.4
May 14, 1969	242.4
June 12, 1969	242.3
Oct. 9, 1969	241.75
Well YR-54-54-602	
Owner: M. and W. West	
May 25, 1968	220.73
June 26, 1968	221.0
Aug. 7, 1968	221.6
Sept. 16, 1968	221.0
Nov. 22, 1968	221.0
Dec. 27, 1968	221.1
Jan. 22, 1969	220.7
Feb. 20, 1969	221.2
Mar. 20, 1969	221.2
Apr. 15, 1969	221.2
May 14, 1969	221.2
June 12, 1969	221.1
Oct. 9, 1969	221.3
Well YR-54-54-801	
Owner: Bill Carson	
May 25, 1968	316.26
June 26, 1968	316.6
Aug. 7, 1968	316.5
Sept. 16, 1968	316.3
Nov. 22, 1968	316.6
Dec. 27, 1968	316.9
Jan. 22, 1969	317.0
Feb. 20, 1969	317.3
Mar. 15, 1969	317.55
Apr. 15, 1969	317.7

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-54-54-801—Cont'd.	
May 14, 1969	317.6
June 12, 1969	317.6
Oct. 9, 1969	318.7
Well YR-54-55-101	
Owner: Wayne West	
May 20, 1968	182.09
May 25, 1968	184.47
June 26, 1968	189.44
Aug. 7, 1968	189.60
Sept. 16, 1968	188.24
Oct. 15, 1968	192.25
Nov. 22, 1968	196.02
Dec. 22, 1968	192.95
Jan. 22, 1969	193.60
Feb. 20, 1969	201.50
Apr. 15, 1969	202.90
May 14, 1969	193.18
June 12, 1969	195.15
July 10, 1969	197.27
Aug. 13, 1969	202.23
Sept. 12, 1969	203.30
Oct. 9, 1969	201.40
Nov. 5, 1969	178.92
Dec. 3, 1969	183.60
Jan. 7, 1970	185.90
Jan. 23, 1970	187.2
Well YR-54-55-403	
Owner: Massie West	
Oct. 23, 1967	229.18
Jan. 7, 1969	223.0
Feb. 20, 1969	223.6
Apr. 15, 1969	223.2
May 14, 1969	238.8
Jan. 23, 1970	220.4
Well YR-54-55-801	
Owner: Massie West	
Oct. 24, 1967	120.6
May 16, 1968	*119.7
Aug. 7, 1968	*120.9
Sept. 16, 1968	*120.3
Nov. 22, 1968	123.1
Dec. 27, 1968	124.9
Jan. 7, 1969	125.6
Jan. 22, 1969	126.2
Feb. 20, 1969	126.7
Mar. 20, 1969	127.8
Apr. 15, 1969	127.4
May 14, 1969	123.7
June 12, 1969	123.0
Dec. 5, 1969	118.4
Well YR-54-55-802	
Owner: Massie West	
Feb. 3, 1968	108.6
June 26, 1968	142.7
Aug. 7, 1968	*143.6
Sept. 16, 1968	*143.4
Jan. 7, 1969	109.9
Jan. 22, 1969	*142.7
Feb. 20, 1969	110.8
Apr. 15, 1969	111.1
May 14, 1969	110.2
June 12, 1969	108.8
Well YR-54-55-903	
Owner: J. C. Mayfield	
Feb. 3, 1968	128.42
June 26, 1968	126.6
Aug. 7, 1968	126.9
Sept. 16, 1968	126.9
Oct. 23, 1968	129.54
Nov. 22, 1968	128.8
Dec. 27, 1968	129.8
Jan. 22, 1969	130.5
Feb. 20, 1969	130.9
Mar. 20, 1969	131.5
Apr. 15, 1969	131.5
May 14, 1969	129.0
June 12, 1969	128.5
Dec. 3, 1969	118.73
Well YR-54-56-402	
Owner: B. E. Wilson	
Jan. 27, 1954	94.99
Jan. 27, 1955	88.41
Dec. 9, 1955	90.35
Dec. 16, 1956	96.75
Dec. 9, 1957	82.34
Dec. 8, 1959	82.51
Feb. 9, 1961	88.75
Dec. 3, 1962	90.24
Dec. 2, 1963	94.00
Dec. 2, 1964	88.99
Dec. 6, 1965	89.87
Dec. 9, 1966	94.51
Dec. 2, 1967	95.10
Nov. 16, 1968	95.02
Dec. 3, 1968	101.33
Dec. 1, 1969	99.54
Well YR-54-56-403	
Owner: B. E. Wilson	
Jan. 27, 1955	34.25
Dec. 9, 1955	37.78
Dec. 17, 1956	49.98
Dec. 9, 1957	30.76
Dec. 8, 1959	31.47
Dec. 3, 1962	37.56
Dec. 2, 1963	44.77
Dec. 2, 1964	31.30
Dec. 6, 1965	40.97
Dec. 9, 1966	45.75
Dec. 2, 1967	46.70
Nov. 16, 1968	48.57
Dec. 3, 1968	48.40
Dec. 1, 1969	40.43

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-54-56-501	
Owner: B. E. Wilson	
Jan. 27, 1954	43.00
Jan. 27, 1955	39.35
Dec. 9, 1956	40.19
Dec. 17, 1956	43.62
Dec. 9, 1957	34.84
Dec. 8, 1959	36.94
Feb. 9, 1961	39.39
Dec. 3, 1962	40.04
Dec. 2, 1963	42.28
Dec. 2, 1964	37.20
Dec. 6, 1965	40.40
Dec. 9, 1966	42.50
Dec. 2, 1967	43.04
Dec. 3, 1968	44.84
Dec. 1, 1969	41.75
Well YR-54-56-502	
Owner: B. E. Wilson	
Jan. 27, 1954	45.51
Jan. 27, 1955	43.14
Dec. 9, 1955	42.83
Dec. 9, 1957	36.95
Dec. 7, 1959	38.32
Feb. 9, 1961	42.22
Dec. 2, 1964	40.19
Dec. 9, 1966	46.58
Dec. 2, 1967	47.52
Nov. 16, 1968	47.26
Well YR-54-56-601	
Owner: B. E. Wilson	
Jan. 27, 1954	66.73
Dec. 17, 1956	67.58
Dec. 9, 1957	57.42
Dec. 7, 1959	59.28
Feb. 9, 1961	63.60
Dec. 3, 1962	66.18
Dec. 2, 1963	66.09

DATE	WATER LEVEL
Well YR-54-56-601—Cont'd.	
Dec. 2, 1964	61.49
Dec. 6, 1965	65.07
Dec. 9, 1966	66.85
Dec. 2, 1967	68.08
Nov. 16, 1968	67.77
Dec. 3, 1968	68.41
Dec. 1, 1969	65.36
Well YR-54-56-602	
Owner: B. E. Wilson	
Jan. 27, 1954	62.68
Jan. 27, 1955	57.81
Dec. 9, 1955	58.37
Dec. 17, 1956	61.92
Dec. 9, 1957	46.47
Dec. 8, 1959	49.85
Feb. 9, 1961	58.95
Dec. 3, 1962	56.37
Dec. 2, 1963	60.03
Dec. 2, 1964	55.47
Dec. 6, 1965	58.28
Dec. 9, 1966	60.10
Dec. 2, 1967	60.56
Nov. 16, 1968	61.96
Dec. 3, 1968	62.41
Dec. 1, 1969	58.75
Well YR-54-56-603	
Owner: B. E. Wilson	
Jan. 27, 1955	52.63
Dec. 9, 1955	52.79
Dec. 9, 1957	41.84
Dec. 8, 1959	45.22
Feb. 9, 1961	36.42
Dec. 2, 1963	55.18
Dec. 2, 1964	48.18
Dec. 6, 1965	53.17
Dec. 9, 1966	55.27
Dec. 2, 1967	55.65

DATE	WATER LEVEL
Well YR-54-56-603—Cont'd.	
Nov. 16, 1968	57.20
Dec. 3, 1968	57.64
Dec. 1, 1969	55.15
Well YR-54-60-502	
Owner: H. E. Arledge	
Jan. 26, 1968	371.40
June 4, 1968	372.3
July 31, 1968	367.7
Dec. 12, 1968	370.8
Mar. 24, 1969	372.7
June 19, 1969	369.3
Nov. 20, 1969	371.00
Well YR-54-60-803	
Owner: H. E. Arledge	
Jan. 26, 1968	348.15
July 31, 1968	347.7
Sept. 11, 1968	348.6
Dec. 12, 1968	347.9
Jan. 20, 1969	348.2
Apr. 16, 1969	347.9
Nov. 20, 1969	349.08
Well YR-54-64-203	
Owner: R. Cauthorn	
Oct. 26, 1967	185.95
May 31, 1968	188.90
June 5, 1968	189.15
June 10, 1968	189.37
June 15, 1968	189.54
June 20, 1968	189.72
June 25, 1968	189.93
June 30, 1968	190.09
July 5, 1968	190.21
July 10, 1968	190.30
July 15, 1968	190.41
July 20, 1968	190.47
July 25, 1968	190.44
July 31, 1968	190.42

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-54-64-203—Cont'd.	
Aug. 5, 1968	190.40
Aug. 10, 1968	190.38
Aug. 15, 1968	190.39
Aug. 20, 1968	190.42
Aug. 25, 1968	190.44
Aug. 31, 1968	190.53
Sept. 5, 1968	190.61
Sept. 10, 1968	190.61
Sept. 15, 1968	190.57
Sept. 20, 1968	190.59
Sept. 25, 1968	190.57
Sept. 30, 1968	190.58
Oct. 5, 1968	190.58
Oct. 10, 1968	190.63
Oct. 15, 1968	190.65
Oct. 20, 1968	190.69
Oct. 25, 1968	190.70
Oct. 31, 1968	190.74
Nov. 5, 1968	190.75
Nov. 10, 1968	190.78
Nov. 15, 1968	190.83
Nov. 20, 1968	190.85
Nov. 25, 1968	190.83
Nov. 30, 1968	190.84
Dec. 5, 1968	190.90
Dec. 10, 1968	190.91
Dec. 15, 1968	190.92
Dec. 20, 1968	190.95
Dec. 25, 1968	190.96
Dec. 31, 1968	191.07
Jan. 5, 1969	191.07
Jan. 10, 1969	191.10
Jan. 15, 1969	191.14
Jan. 20, 1969	191.15
Jan. 25, 1969	191.18
Jan. 31, 1969	191.23
Feb. 5, 1969	191.24
Well YR-54-64-203—Cont'd.	
Feb. 10, 1969	191.27
Feb. 15, 1969	191.30
Feb. 20, 1969	191.29
Feb. 25, 1969	191.31
Feb. 28, 1969	191.33
Mar. 5, 1969	191.35
Mar. 10, 1969	191.40
Mar. 15, 1969	191.42
Mar. 20, 1969	191.43
Mar. 25, 1969	191.49
Mar. 31, 1969	191.58
Apr. 5, 1969	191.65
Apr. 10, 1969	191.68
Apr. 15, 1969	191.63
Apr. 20, 1969	191.50
Apr. 25, 1969	191.32
Apr. 30, 1969	191.23
May 5, 1969	191.13
May 10, 1969	190.87
May 15, 1969	190.68
May 20, 1969	188.89
May 25, 1969	188.73
May 31, 1969	188.96
June 5, 1969	189.22
June 10, 1969	189.37
June 15, 1969	189.57
June 20, 1969	189.83
June 25, 1969	190.05
June 30, 1969	190.32
July 5, 1969	190.55
July 10, 1969	190.75
July 15, 1969	190.97
July 20, 1969	191.10
July 25, 1969	191.22
July 31, 1969	191.30
Aug. 5, 1969	191.33
Aug. 10, 1969	191.36
Well YR-54-64-203—Cont'd.	
Aug. 15, 1969	191.40
Aug. 20, 1969	191.51
Aug. 25, 1969	191.57
Aug. 31, 1969	190.95
Sept. 5, 1969	190.45
Sept. 10, 1969	190.15
Sept. 15, 1969	189.88
Sept. 20, 1969	189.65
Sept. 25, 1969	189.57
Sept. 30, 1969	189.62
Oct. 5, 1969	189.75
Oct. 10, 1969	189.85
Oct. 15, 1969	189.75
Oct. 20, 1969	189.08
Oct. 25, 1969	188.65
Oct. 31, 1969	183.80
Nov. 5, 1969	183.50
Nov. 10, 1969	183.09
Nov. 15, 1969	182.78
Nov. 20, 1969	182.70
Nov. 25, 1969	182.78
Nov. 30, 1969	180.44
Dec. 5, 1969	180.75
Dec. 10, 1969	181.18
Dec. 15, 1969	181.55
Dec. 20, 1969	181.82
Dec. 25, 1969	182.15
Dec. 31, 1969	182.24
Jan. 5, 1970	182.48
Jan. 10, 1970	182.68
Jan. 15, 1970	183.01
Well YR-55-41-801	
Owner: J. V. Drisdale	
Jan. 27, 1954	101.61
Jan. 27, 1955	100.29
Dec. 9, 1955	100.02
Dec. 9, 1957	92.19

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-55-41-801—Cont'd.	
Dec. 8, 1959	94.03
Feb. 9, 1961	98.81
Dec. 3, 1962	99.45
Dec. 2, 1964	94.60
Dec. 6, 1965	99.80
Dec. 9, 1966	102.54
Dec. 2, 1967	104.68
Oct. 24, 1968	104.17
Dec. 3, 1968	103.35
Dec. 1, 1969	102.68
Well YR-55-49-102	
Owner: J. V. Drisdale	
Jan. 27, 1954	97.18
Jan. 27, 1955	95.51
Dec. 9, 1955	96.18
Dec. 17, 1956	101.59
Dec. 9, 1957	82.47
Dec. 8, 1959	87.03
Feb. 9, 1961	104.52
Dec. 3, 1962	91.54
Dec. 2, 1963	97.40
Dec. 2, 1964	88.94
Dec. 6, 1965	95.41
Dec. 9, 1966	108.00
Dec. 2, 1967	111.24
Oct. 24, 1968	100.1
Dec. 3, 1968	100.95
Dec. 1, 1969	93.75
Well YR-70-17-201	
Owner: George Whitehead	
Nov. 19, 1964	484.30
Jan. 6, 1965	490.70
Mar. 8, 1965	494.90
July 16, 1965	496.65
Sept. 8, 1965	498.75
Jan. 7, 1966	510.37
May 2, 1966	512.48

DATE	WATER LEVEL
Well YR-70-17-201—Cont'd.	
Sept. 22, 1966	600.60
Dec. 8, 1966	497.10
June 23, 1967	517.90
Dec. 6, 1967	515.60
June 21, 1968	517.00
Oct. 10, 1968	519.9
Dec. 20, 1968	521.8
Jan. 14, 1969	522.26
Mar. 12, 1969	522.6
Apr. 9, 1969	489.7
Well YR-70-17-301	
Owner: Hussie Miers	
Apr. 23, 1965	480.50
May 15, 1965	484.70
May 20, 1965	481.95
May 25, 1965	480.54
May 31, 1965	478.95
June 5, 1965	478.70
June 10, 1965	478.65
June 15, 1965	478.60
June 20, 1965	478.78
June 25, 1965	474.97
June 30, 1965	473.35
July 5, 1965	473.80
July 10, 1965	474.20
July 15, 1965	474.35
July 20, 1965	475.20
July 25, 1965	475.12
July 31, 1965	474.95
Aug. 5, 1965	474.72
Aug. 10, 1965	474.58
Aug. 15, 1965	474.35
Aug. 20, 1965	473.80
Aug. 25, 1965	473.73
Aug. 31, 1965	473.80
Sept. 5, 1965	474.00
Sept. 10, 1965	474.22

DATE	WATER LEVEL
Well YR-70-17-301—Cont'd.	
Sept. 15, 1965	474.49
Sept. 20, 1965	474.87
Sept. 25, 1965	475.34
Sept. 30, 1965	476.55
Oct. 5, 1965	475.65
Oct. 10, 1965	475.95
Oct. 15, 1965	476.22
Oct. 20, 1965	476.70
Oct. 25, 1965	477.15
Oct. 31, 1965	477.70
Nov. 5, 1965	478.10
Nov. 10, 1965	479.10
Nov. 15, 1965	480.05
Nov. 20, 1965	481.25
Nov. 25, 1965	482.27
Nov. 30, 1965	483.77
Dec. 5, 1965	483.90
Dec. 10, 1965	484.10
Dec. 15, 1965	484.52
Dec. 20, 1965	485.10
Dec. 25, 1965	485.54
Dec. 31, 1965	485.70
Jan. 5, 1966	486.60
Jan. 10, 1966	487.13
Jan. 15, 1966	487.13
Jan. 20, 1966	487.56
Jan. 25, 1966	487.91
Jan. 31, 1966	487.89
Feb. 5, 1966	488.23
Feb. 10, 1966	488.42
Feb. 15, 1966	488.53
Feb. 20, 1966	488.74
Feb. 25, 1966	488.73
Feb. 28, 1966	488.96
Mar. 5, 1966	489.20
Mar. 10, 1966	489.06
Mar. 15, 1966	489.13

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-17-301—Cont'd.	
Mar. 20, 1966	489.23
Mar. 25, 1966	489.31
Mar. 31, 1966	489.41
Apr. 5, 1966	489.61
Apr. 10, 1966	489.46
Apr. 15, 1966	489.71
Apr. 20, 1966	489.71
Apr. 25, 1966	489.51
Apr. 30, 1966	488.21
May 5, 1966	484.91
May 10, 1966	483.41
May 15, 1966	482.68
May 20, 1966	482.01
May 26, 1966	481.51
May 31, 1966	480.96
June 5, 1966	480.44
June 10, 1966	480.02
June 15, 1966	479.57
June 20, 1966	479.15
June 25, 1966	478.92
June 30, 1966	478.60
July 5, 1966	478.36
July 10, 1966	478.17
July 15, 1966	478.00
July 20, 1966	477.85
July 25, 1966	477.85
July 31, 1966	477.83
Aug. 5, 1966	477.87
Aug. 10, 1966	477.98
Aug. 15, 1966	478.17
Aug. 20, 1966	478.20
Aug. 25, 1966	478.52
Aug. 31, 1966	478.47
Sept. 5, 1966	478.63
Sept. 10, 1966	478.07
Sept. 15, 1966	477.12
Sept. 20, 1966	477.41
Sept. 25, 1966	477.24
Sept. 30, 1966	477.17
Oct. 5, 1966	477.23
Oct. 10, 1966	476.69
Oct. 15, 1966	476.67
Oct. 20, 1966	476.28
Oct. 25, 1966	476.09
Oct. 31, 1966	475.39
Nov. 5, 1966	475.15
Nov. 10, 1966	474.85
Nov. 15, 1966	474.57
Nov. 20, 1966	474.25
Nov. 25, 1966	473.92
Nov. 30, 1966	473.69
Dec. 5, 1966	473.37
Dec. 10, 1966	473.52
Dec. 15, 1966	473.46
Dec. 20, 1966	473.45
Dec. 25, 1966	473.75
Dec. 31, 1966	473.99
Jan. 5, 1967	474.27
Jan. 10, 1967	474.97
Jan. 15, 1967	475.12
Jan. 20, 1967	475.53
Jan. 25, 1967	475.56
Jan. 31, 1967	475.95
Feb. 5, 1967	476.37
Feb. 10, 1967	476.19
Feb. 15, 1967	476.80
Feb. 20, 1967	477.59
Feb. 25, 1967	478.17
Feb. 28, 1967	478.52
Mar. 5, 1967	479.02
Mar. 10, 1967	480.42
Mar. 15, 1967	481.62
Mar. 20, 1967	482.37
Mar. 25, 1967	483.12
Mar. 31, 1967	482.88
Apr. 5, 1967	484.02
Apr. 10, 1967	484.61
Apr. 15, 1967	484.97
Apr. 20, 1967	485.13
Apr. 25, 1967	485.55
Apr. 30, 1967	486.24
May 5, 1967	486.76
May 10, 1967	487.11
May 15, 1967	487.62
May 20, 1967	487.66
May 25, 1967	487.89
May 31, 1967	488.02
June 5, 1967	488.17
June 10, 1967	488.14
June 15, 1967	488.36
June 20, 1967	488.50
June 25, 1967	488.73
June 30, 1967	488.85
July 5, 1967	488.99
July 10, 1967	489.10
July 15, 1967	489.20
July 20, 1967	489.29
July 25, 1967	489.29
July 31, 1967	489.34
Aug. 5, 1967	489.35
Aug. 10, 1967	489.33
Aug. 15, 1967	489.30
Aug. 20, 1967	489.29
Aug. 25, 1967	489.37
Aug. 31, 1967	489.43
Sept. 5, 1967	488.37
Sept. 10, 1967	488.53
Sept. 15, 1967	488.62
Sept. 20, 1967	486.77
Sept. 25, 1967	485.42
Sept. 30, 1967	485.32

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-17-301—Cont'd.	
Oct. 5, 1967	485.32
Oct. 10, 1967	486.39
Oct. 15, 1967	485.02
Oct. 20, 1967	484.17
Oct. 25, 1967	485.06
Oct. 31, 1967	485.30
Nov. 5, 1967	485.82
Nov. 10, 1967	—
Nov. 15, 1967	—
Nov. 20, 1967	486.24
Nov. 25, 1967	486.47
Nov. 30, 1967	486.67
Dec. 5, 1967	486.77
Dec. 10, 1967	486.91
Dec. 15, 1967	487.50
Dec. 20, 1967	487.65
Dec. 25, 1967	487.95
Dec. 31, 1967	488.29
Jan. 5, 1968	488.50
Jan. 10, 1968	488.49
Jan. 15, 1968	488.49
Jan. 20, 1968	488.52
Jan. 25, 1968	488.75
Jan. 31, 1968	489.15
Feb. 5, 1968	489.42
Feb. 10, 1968	489.33
Feb. 15, 1968	489.51
Feb. 20, 1968	489.17
Feb. 25, 1968	489.44
Feb. 28, 1968	489.54
Mar. 5, 1968	489.34
Mar. 10, 1968	489.34
Mar. 15, 1968	489.58
Mar. 20, 1968	489.57
Mar. 25, 1968	489.32
Mar. 31, 1968	489.42
Apr. 5, 1968	489.27
Apr. 10, 1968	489.32
Apr. 16, 1968	489.07
Apr. 20, 1968	487.37
Apr. 25, 1968	487.29
Apr. 30, 1968	487.60
May 5, 1968	487.42
May 10, 1968	487.02
May 15, 1968	486.17
May 20, 1968	485.82
May 25, 1968	485.76
May 31, 1968	485.87
June 5, 1968	485.93
June 10, 1968	486.16
June 15, 1968	486.24
June 20, 1968	485.92
June 25, 1968	486.21
June 30, 1968	486.34
July 5, 1968	486.41
July 10, 1968	486.45
July 15, 1958	486.57
July 20, 1968	486.64
July 25, 1968	486.67
July 31, 1968	486.71
Aug. 5, 1968	486.87
Aug. 10, 1968	487.00
Aug. 15, 1968	487.27
Aug. 20, 1968	487.57
Aug. 25, 1968	487.84
Aug. 31, 1968	488.06
Sept. 5, 1968	488.21
Sept. 10, 1968	488.27
Sept. 16, 1968	488.29
Sept. 20, 1968	488.49
Sept. 25, 1968	488.64
Sept. 30, 1968	488.77
Oct. 5, 1968	488.77
Oct. 10, 1968	489.05
Oct. 15, 1968	489.00
Oct. 20, 1968	489.20
Oct. 25, 1968	489.32
Oct. 31, 1968	489.37
Nov. 5, 1968	489.36
Nov. 10, 1968	—
Nov. 15, 1968	—
Nov. 20, 1968	—
Nov. 25, 1968	—
Nov. 30, 1968	—
Dec. 5, 1968	489.64
Dec. 10, 1968	489.74
Dec. 15, 1968	489.75
Dec. 20, 1968	489.74
Dec. 25, 1968	489.83
Dec. 31, 1968	489.96
Jan. 5, 1969	489.92
Jan. 10, 1969	489.93
Jan. 15, 1969	489.93
Jan. 20, 1969	489.99
Jan. 25, 1969	490.02
Jan. 31, 1969	490.13
Feb. 5, 1969	490.16
Feb. 10, 1969	490.11
Feb. 15, 1969	490.11
Feb. 20, 1969	490.09
Feb. 25, 1969	490.16
Feb. 28, 1969	490.16
Mar. 5, 1969	490.12
Mar. 10, 1969	490.21
Mar. 15, 1969	490.27
Mar. 20, 1969	490.22
Mar. 25, 1969	490.32
Mar. 31, 1969	490.19
Apr. 5, 1969	490.26
Apr. 10, 1969	490.22
Apr. 15, 1969	490.17

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-17-301—Cont'd.	
Apr. 20, 1969	488.21
Apr. 25, 1969	488.65
Apr. 30, 1969	488.93
May 5, 1969	488.54
May 10, 1969	488.89
May 15, 1969	488.99
May 20, 1969	—
May 25, 1969	—
May 31, 1969	—
June 5, 1969	—
June 10, 1969	—
June 15, 1969	—
June 20, 1969	—
June 25, 1969	—
June 30, 1969	—
July 5, 1969	488.83
July 10, 1969	488.92
July 15, 1969	488.94
July 20, 1969	489.00
July 25, 1969	489.09
July 31, 1969	489.07
Aug. 5, 1969	489.13
Aug. 10, 1969	489.21
Aug. 15, 1969	489.27
Aug. 20, 1969	489.41
Aug. 25, 1969	489.45
Aug. 31, 1969	489.66
Sept. 5, 1969	489.67
Sept. 10, 1969	489.77
Sept. 15, 1969	489.75
Sept. 20, 1969	489.87
Sept. 25, 1969	489.75
Sept. 30, 1969	489.74
Oct. 5, 1969	488.67
Oct. 10, 1969	485.12
Oct. 15, 1969	483.12
Oct. 20, 1969	482.42
Oct. 25, 1969	482.02
Oct. 31, 1969	478.02
Nov. 5, 1969	477.42
Nov. 10, 1969	477.08
Nov. 15, 1969	476.72
Nov. 20, 1969	476.61
Nov. 25, 1969	476.22
Nov. 30, 1969	474.52
Dec. 5, 1969	473.52
Dec. 10, 1969	473.37
Dec. 15, 1969	472.82
Dec. 20, 1969	—
Dec. 25, 1969	—
Dec. 31, 1969	—
Well YR-70-25-502	
Owner: Elvis Stewart	
Mar. 18, 1964	232.0
Nov. 30, 1964	226.1
June 1, 1965	227.0
Dec. 1, 1965	229.8
July 30, 1966	228.42
Dec. 8, 1966	228.10
Jan. 6, 1967	227.94
June 12, 1967	228.91
Dec. 4, 1967	228.47
Jan. 4, 1968	228.05
July 2, 1968	228.0
Oct. 7, 1968	192.3
Dec. 4, 1968	180.5
Feb. 11, 1969	177.0
May 9, 1969	169.9
July 10, 1969	165.4
Nov. 13, 1969	158.48
Dec. 5, 1969	156.14
Well YR-70-25-605	
Owner: Miers Brothers	
Feb. 3, 1966	256.63
Mar. 4, 1966	256.68
Apr. 1, 1966	257.50
May 2, 1966	244.40
May 5, 1966	245.34
June 6, 1966	248.85
July 13, 1966	249.60
July 30, 1966	250.37
Aug. 17, 1966	251.02
Sept. 17, 1966	245.51
Oct. 17, 1966	244.98
Nov. 10, 1966	245.33
Dec. 3, 1966	245.78
Jan. 6, 1967	246.21
Feb. 24, 1967	247.90
Mar. 3, 1967	247.69
Mar. 31, 1967	248.82
Apr. 28, 1967	249.93
May 23, 1967	249.52
June 23, 1967	250.60
July 22, 1967	251.72
July 27, 1967	251.83
Aug. 10, 1967	252.50
Aug. 21, 1967	252.81
Sept. 18, 1967	248.16
Oct. 6, 1967	249.79
Nov. 2, 1967	250.55
Dec. 4, 1967	251.76
Jan. 4, 1968	253.29
Feb. 5, 1968	254.99
Feb. 15, 1968	255.32
Mar. 8, 1968	255.63
Apr. 5, 1968	256.30
Apr. 26, 1968	254.00
May 7, 1968	252.42
May 16, 1968	250.59
June 5, 1968	252.33
June 11, 1968	252.93
June 18, 1968	253.27

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-25-605—Cont'd.	
July 2, 1968	254.03
July 6, 1968	254.07
Aug. 6, 1968	248.16
Aug. 16, 1968	247.30
Aug. 23, 1968	244.23
Aug. 26, 1968	243.28
Aug. 30, 1968	242.26
Sept. 6, 1968	240.37
Sept. 13, 1968	237.43
Sept. 20, 1968	233.58
Sept. 23, 1968	231.20
Oct. 2, 1968	222.34
Oct. 7, 1968	219.53
Oct. 23, 1968	215.85
Nov. 1, 1968	215.16
Nov. 8, 1968	214.79
Dec. 6, 1968	213.34
Dec. 17, 1968	213.49
Jan. 6, 1969	214.11
Jan. 28, 1969	212.68
Feb. 11, 1969	212.04
Feb. 27, 1969	212.32
Mar. 17, 1969	209.22
Mar. 26, 1969	208.70
Apr. 8, 1969	207.86
Apr. 18, 1969	204.85
May 9, 1969	202.97
June 3, 1969	201.20
July 10, 1969	199.98
Aug. 13, 1969	198.75
Sept. 9, 1969	198.22
Oct. 17, 1969	184.83
Nov. 13, 1969	182.95
Dec. 5, 1969	179.28
Well YR-70-26-401	
Owner: Walter Gillis	
Sept. 26, 1968	201.7
Dec. 11, 1968	200.5
Feb. 27, 1969	201.3
May 28, 1969	195.0
July 17, 1969	195.0
Well YR-70-33-604	
Owner: C. Kelley	
July 24, 1939	159.50
Jan. 17, 1964	176.0
July 20, 1964	174.9
Aug. 11, 1964	175.4
Sept. 8, 1964	175.86
Oct. 5, 1964	167.22
Oct. 16, 1964	167.00
Nov. 5, 1964	166.12
Dec. 3, 1964	164.80
Jan. 12, 1965	164.26
Feb. 8, 1965	164.29
Mar. 2, 1965	164.54
Apr. 21, 1965	165.64
May 7, 1965	165.60
June 21, 1965	166.30
July 14, 1965	165.83
Aug. 10, 1965	165.18
Sept. 9, 1965	165.38
Oct. 11, 1965	166.61
Nov. 2, 1965	167.32
Dec. 3, 1965	168.54
Jan. 24, 1966	171.01
Feb. 14, 1966	171.72
Mar. 11, 1966	172.16
Apr. 12, 1966	172.88
May 5, 1966	171.10
June 13, 1966	168.30
July 18, 1966	167.77
Aug. 17, 1966	168.48
Sept. 23, 1966	169.34
Oct. 10, 1966	169.15
Nov. 10, 1966	168.70
Dec. 9, 1966	168.62
Jan. 14, 1967	168.68
Feb. 14, 1967	169.10
Mar. 20, 1967	169.75
Apr. 27, 1967	170.71
May 11, 1967	170.76
June 12, 1967	171.19
July 17, 1967	171.82
Aug. 7, 1967	172.13
Sept. 8, 1967	171.91
Oct. 9, 1967	171.31
Nov. 2, 1967	171.53
Dec. 11, 1967	171.97
Jan. 18, 1968	172.66
Jan. 29, 1968	172.64
Feb. 9, 1968	172.73
Feb. 26, 1968	172.77
Mar. 8, 1968	172.74
Apr. 6, 1968	172.90
Apr. 22, 1968	172.15
May 7, 1968	172.09
May 13, 1968	171.91
May 28, 1968	171.55
June 4, 1968	171.40
June 10, 1968	171.50
June 17, 1968	170.97
June 24, 1968	171.57
July 1, 1968	171.68
July 5, 1968	171.27
July 8, 1968	171.35
July 11, 1968	171.43
July 30, 1968	171.05
Aug. 12, 1968	171.03
Aug. 19, 1968	171.02
Aug. 30, 1968	170.86
Sept. 6, 1968	170.68
Sept. 20, 1968	170.19

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-33-604—Cont'd.	
Oct. 2, 1968	169.50
Oct. 23, 1968	168.22
Nov. 1, 1968	167.87
Nov. 8, 1968	167.58
Dec. 2, 1968	166.77
Dec. 17, 1968	166.43
Jan. 3, 1969	166.56
Jan. 7, 1969	166.46
Jan. 29, 1969	166.24
Feb. 11, 1969	166.20
Feb. 24, 1969	165.66
Mar. 11, 1969	165.35
Mar. 25, 1969	165.15
Apr. 8, 1969	164.86
Apr. 16, 1969	163.59
May 9, 1969	162.20
June 4, 1969	162.61
July 7, 1969	162.07
Aug. 12, 1969	162.63
Sept. 15, 1969	162.00
Nov. 4, 1969	156.25
Dec. 5, 1969	152.56
Well YR-70-33-903	
Owner: Mrs. M. S. Newton	
Dec. 3, 1964	81.0
Jan. 28, 1965	80.9
Mar. 1, 1965	80.92
Jan. 3, 1967	86.30
Jan. 5, 1967	86.19
Jan. 10, 1967	86.42
Jan. 15, 1967	86.54
Jan. 20, 1967	86.31
Jan. 25, 1967	86.42
Jan. 31, 1967	86.31
Feb. 5, 1967	86.42
Feb. 10, 1967	86.42
Feb. 15, 1967	86.54
Feb. 20, 1967	86.77
Feb. 25, 1967	87.00
Feb. 28, 1967	86.98
Mar. 5, 1967	86.88
Mar. 10, 1967	87.12
Mar. 15, 1967	87.12
Mar. 20, 1967	87.23
Mar. 25, 1967	87.46
Mar. 31, 1967	87.58
Apr. 5, 1967	87.81
Apr. 10, 1967	87.92
Apr. 15, 1967	88.15
Apr. 20, 1967	88.38
Apr. 25, 1967	88.38
Apr. 30, 1967	88.61
May 5, 1967	88.85
May 10, 1967	88.96
May 15, 1967	89.19
May 20, 1967	89.31
May 25, 1967	89.31
May 31, 1967	89.42
June 5, 1967	89.77
June 10, 1967	90.00
June 15, 1967	90.00
June 20, 1967	90.23
June 25, 1967	90.34
June 30, 1967	90.69
July 5, 1967	90.81
July 10, 1967	91.15
July 15, 1967	91.61
July 20, 1967	91.84
July 25, 1967	91.96
July 31, 1967	—
Aug. 5, 1967	92.24
Aug. 10, 1967	92.77
Aug. 15, 1967	92.88
Aug. 20, 1967	93.00
Aug. 25, 1967	93.11
Aug. 31, 1967	93.46
Sept. 5, 1967	92.19
Sept. 10, 1967	—
Sept. 15, 1967	92.54
Sept. 20, 1967	91.73
Sept. 25, 1967	91.73
Sept. 30, 1967	91.96
Oct. 5, 1967	91.96
Oct. 10, 1967	91.96
Oct. 15, 1967	92.30
Oct. 20, 1967	92.42
Oct. 25, 1967	92.54
Oct. 31, 1967	92.54
Nov. 5, 1967	92.57
Nov. 10, 1967	92.57
Nov. 15, 1967	92.57
Nov. 20, 1967	92.65
Nov. 25, 1967	92.65
Nov. 30, 1967	92.88
Dec. 5, 1967	92.88
Dec. 10, 1967	93.11
Dec. 15, 1967	93.11
Dec. 20, 1967	93.00
Dec. 25, 1967	93.11
Dec. 31, 1967	93.46
Jan. 5, 1968	93.57
Jan. 10, 1968	93.80
Jan. 15, 1968	93.69
Jan. 20, 1968	94.03
Jan. 25, 1968	93.63
Jan. 31, 1968	93.92
Feb. 5, 1968	94.15
Feb. 10, 1968	94.26
Feb. 15, 1968	94.03
Feb. 20, 1968	93.80
Feb. 25, 1968	94.15

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-33-903—Cont'd.	
Feb. 28, 1968	94.16
Mar. 5, 1968	93.92
Mar. 10, 1968	94.03
Mar. 15, 1968	94.03
Mar. 20, 1968	94.03
Mar. 25, 1968	93.80
Mar. 31, 1968	—
Apr. 5, 1968	94.38
Apr. 10, 1968	94.38
Apr. 15, 1968	94.26
Apr. 20, 1968	93.92
Apr. 26, 1968	93.57
Apr. 30, 1968	93.34
May 5, 1968	93.34
May 10, 1968	93.34
May 15, 1968	92.88
May 20, 1968	92.54
May 25, 1968	92.30
May 31, 1968	92.19
June 5, 1968	92.07
June 10, 1968	91.84
June 15, 1968	92.77
June 20, 1968	92.88
June 25, 1968	93.00
June 30, 1968	93.23
July 5, 1968	93.00
July 10, 1968	93.00
July 15, 1968	93.11
July 20, 1968	93.23
July 25, 1968	93.23
July 31, 1968	93.23
Aug. 5, 1968	93.34
Aug. 10, 1968	93.46
Aug. 15, 1968	93.46
Aug. 20, 1968	93.57
Aug. 25, 1968	93.80
Aug. 31, 1968	93.92
Sept. 5, 1968	93.92
Sept. 10, 1968	93.80
Sept. 15, 1968	93.80
Sept. 20, 1968	93.73
Sept. 25, 1968	94.15
Sept. 30, 1968	94.69
Oct. 5, 1968	94.26
Oct. 10, 1968	94.15
Oct. 15, 1968	93.80
Oct. 20, 1968	93.80
Oct. 25, 1968	93.69
Oct. 31, 1968	93.46
Nov. 5, 1968	93.34
Nov. 10, 1968	93.46
Nov. 16, 1968	93.34
Nov. 20, 1968	93.34
Nov. 25, 1968	93.23
Nov. 30, 1968	93.11
Dec. 5, 1968	93.11
Dec. 10, 1968	93.00
Dec. 15, 1968	93.00
Dec. 20, 1968	92.88
Dec. 25, 1968	92.65
Dec. 31, 1968	92.88
Jan. 5, 1969	92.77
Jan. 10, 1969	—
Jan. 15, 1969	92.77
Jan. 20, 1969	92.65
Jan. 25, 1969	92.77
Jan. 31, 1969	92.65
Feb. 5, 1969	92.65
Feb. 10, 1969	92.65
Feb. 15, 1969	92.42
Feb. 20, 1969	92.42
Feb. 25, 1969	92.30
Feb. 28, 1969	92.36
Mar. 5, 1969	92.19
Mar. 10, 1969	92.30
Mar. 15, 1969	92.30
Mar. 20, 1969	92.19
Mar. 26, 1969	92.19
Mar. 31, 1969	92.07
Apr. 5, 1969	92.07
Apr. 10, 1969	91.96
Apr. 15, 1969	90.92
Apr. 20, 1969	90.81
Apr. 25, 1969	90.58
Apr. 30, 1969	90.58
May 5, 1969	89.88
May 10, 1969	88.96
May 15, 1969	88.73
May 20, 1969	88.85
May 25, 1969	88.85
May 31, 1969	88.73
June 5, 1969	89.19
June 10, 1969	88.96
June 15, 1969	89.19
June 20, 1969	89.08
June 25, 1969	89.08
June 30, 1969	89.08
July 5, 1969	88.96
July 10, 1969	89.19
July 15, 1969	89.08
July 20, 1969	89.19
July 25, 1969	89.08
July 31, 1969	89.19
Aug. 5, 1969	89.42
Aug. 10, 1969	89.65
Aug. 15, 1969	89.65
Aug. 20, 1969	89.77
Aug. 25, 1969	89.88
Aug. 31, 1969	89.19
Sept. 5, 1969	88.96
Sept. 10, 1969	88.96

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-33-903—Cont'd.	
Sept. 15, 1969	88.85
Sept. 20, 1969	88.61
Sept. 25, 1969	88.73
Sept. 30, 1969	88.60
Oct. 5, 1969	85.73
Oct. 10, 1969	85.62
Oct. 15, 1969	84.58
Oct. 20, 1969	84.35
Oct. 25, 1969	83.89
Oct. 31, 1969	82.85
Nov. 5, 1969	82.16
Nov. 10, 1969	81.70
Nov. 15, 1969	81.24
Nov. 20, 1969	80.77
Nov. 25, 1969	80.31
Nov. 30, 1969	79.51
Dec. 5, 1969	78.81
Dec. 10, 1969	78.58
Dec. 15, 1969	78.12
Dec. 20, 1969	77.89
Dec. 25, 1969	77.66
Dec. 31, 1969	77.43
Well YR-70-34-101	
Owner: Mrs. S. Altizer	
Dec. 27, 1950	221.5
June 16, 1964	232.4
Dec. 2, 1964	201.49
June 4, 1965	205.21
Dec. 3, 1965	209.14
June 6, 1966	205.64
Jan. 7, 1967	205.94
June 1, 1967	210.06
Jan. 19, 1968	218.58
June 24, 1968	211.9
Sept. 4, 1968	214.8
Dec. 9, 1968	214.7
Feb. 5, 1969	216.9
Apr. 2, 1969	216.3
July 11, 1969	209.6
Well YR-70-34-301	
Owner: Sparks Rust	
Sept. 2, 1964	229.11
Oct. 2, 1964	213.19
Dec. 2, 1964	208.62
Jan. 18, 1965	209.31
Apr. 15, 1965	211.17
July 9, 1965	209.18
Nov. 1, 1965	212.08
Jan. 6, 1966	215.13
May 5, 1966	214.55
Sept. 1, 1966	213.68
Dec. 1, 1966	211.87
Jan. 7, 1967	212.11
June 1, 1967	214.85
Jan. 5, 1968	218.90
June 24, 1968	217.0
Sept. 4, 1968	217.8
Dec. 9, 1968	219.7
Feb. 5, 1969	219.8
Apr. 2, 1969	219.5
June 2, 1969	216.2
July 11, 1969	216.0
Well YR-70-34-501	
Owner: J. Lampe	
Apr. 5, 1965	95.44
Nov. 20, 1965	96.42
Nov. 25, 1965	96.55
Nov. 30, 1965	96.68
Dec. 5, 1965	96.79
Dec. 10, 1965	96.89
Dec. 15, 1965	97.05
Dec. 20, 1965	97.23
Dec. 25, 1966	97.48
Dec. 31, 1966	97.73
Jan. 5, 1966	97.97
Jan. 10, 1966	98.23
Jan. 15, 1966	98.41
Jan. 20, 1966	98.76
Jan. 25, 1966	99.00
Jan. 31, 1966	99.18
Feb. 5, 1966	99.47
Feb. 10, 1966	99.68
Feb. 15, 1966	99.89
Feb. 20, 1966	100.08
Feb. 25, 1966	100.23
Feb. 28, 1966	100.36
Mar. 5, 1966	100.56
Mar. 10, 1966	100.70
Mar. 15, 1966	100.89
Mar. 20, 1966	101.08
Mar. 25, 1966	101.33
Mar. 31, 1966	101.58
Apr. 5, 1966	101.83
Apr. 10, 1966	101.93
Apr. 15, 1966	102.19
Apr. 20, 1966	102.33
Apr. 25, 1966	98.85
Apr. 30, 1966	96.33
May 5, 1966	95.31
May 10, 1966	94.70
May 15, 1966	94.33
May 20, 1966	94.18
May 25, 1966	94.18
May 31, 1966	94.28
June 5, 1966	94.31
June 10, 1966	94.45
June 15, 1966	94.55
June 20, 1966	94.57
June 25, 1966	94.68
June 30, 1966	94.81
July 5, 1966	94.97

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-34-501—Cont'd.	
July 10, 1966	95.16
July 15, 1966	95.36
July 20, 1966	95.53
July 25, 1966	95.73
July 31, 1966	96.01
Aug. 5, 1966	96.19
Aug. 10, 1966	96.40
Aug. 15, 1966	96.67
Aug. 20, 1966	96.81
Aug. 25, 1966	96.97
Aug. 31, 1966	97.06
Sept. 5, 1966	97.13
Sept. 10, 1966	96.98
Sept. 15, 1966	96.34
Sept. 20, 1966	96.12
Sept. 25, 1966	95.93
Sept. 30, 1966	95.83
Oct. 5, 1966	95.78
Oct. 10, 1966	95.63
Oct. 15, 1966	95.58
Oct. 20, 1966	95.56
Oct. 25, 1966	95.54
Oct. 31, 1966	95.43
Nov. 5, 1966	95.48
Nov. 10, 1966	95.48
Nov. 15, 1966	95.47
Nov. 20, 1966	95.46
Nov. 25, 1966	95.49
Nov. 30, 1966	95.48
Dec. 5, 1966	95.49
Dec. 10, 1966	95.61
Dec. 15, 1966	95.56
Dec. 20, 1966	95.60
Dec. 25, 1966	95.63
Dec. 31, 1966	95.64
Jan. 5, 1967	95.72
Jan. 10, 1967	95.79
Jan. 15, 1967	95.83
Jan. 20, 1967	95.86
Jan. 25, 1967	95.86
Jan. 31, 1967	95.93
Feb. 5, 1967	95.95
Feb. 10, 1967	96.03
Feb. 15, 1967	96.13
Feb. 20, 1967	96.19
Feb. 25, 1967	96.28
Feb. 28, 1967	96.28
Mar. 5, 1967	96.31
Mar. 10, 1967	96.44
Mar. 15, 1967	96.58
Mar. 20, 1967	96.61
Mar. 25, 1967	96.67
Mar. 31, 1967	96.80
Apr. 5, 1967	96.91
Apr. 10, 1967	97.02
Apr. 15, 1967	97.17
Apr. 20, 1967	97.07
Apr. 25, 1967	97.11
Apr. 30, 1967	97.10
May 5, 1967	97.21
May 10, 1967	97.29
May 15, 1967	97.44
May 20, 1967	97.58
May 25, 1967	97.73
May 31, 1967	97.93
June 5, 1967	97.97
June 10, 1967	98.03
June 15, 1967	98.23
June 20, 1967	98.40
June 25, 1967	98.65
June 30, 1967	98.95
July 5, 1967	99.21
July 10, 1967	99.45
July 15, 1967	99.68
July 20, 1967	99.83
July 25, 1967	99.98
July 31, 1967	100.18
Aug. 5, 1967	100.38
Aug. 10, 1967	100.55
Aug. 15, 1967	100.71
Aug. 20, 1967	100.83
Aug. 25, 1967	100.71
Aug. 31, 1967	100.90
Sept. 5, 1967	100.98
Sept. 10, 1967	101.14
Sept. 15, 1967	101.15
Sept. 20, 1967	99.48
Sept. 25, 1967	99.78
Sept. 30, 1967	100.13
Oct. 5, 1967	100.43
Oct. 10, 1967	100.68
Oct. 15, 1967	100.96
Oct. 20, 1967	100.67
Oct. 25, 1967	100.77
Oct. 31, 1967	100.78
Nov. 5, 1967	100.73
Nov. 10, 1967	100.57
Nov. 15, 1967	100.08
Nov. 20, 1967	100.00
Nov. 25, 1967	100.10
Nov. 30, 1967	100.20
Dec. 5, 1967	100.35
Dec. 10, 1967	100.48
Dec. 15, 1967	100.63
Dec. 20, 1967	100.78
Dec. 25, 1967	100.98
Dec. 31, 1967	101.18
Jan. 5, 1968	101.30
Jan. 10, 1968	101.44
Jan. 15, 1968	101.53
Jan. 20, 1968	101.48

Table 6.--Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-34-501—Cont'd.	
Jan. 25, 1968	100.70
Jan. 31, 1968	100.35
Feb. 5, 1968	100.21
Feb. 10, 1968	100.07
Feb. 15, 1968	100.03
Feb. 20, 1968	99.95
Feb. 25, 1968	99.93
Feb. 28, 1968	99.92
Mar. 5, 1968	99.86
Mar. 10, 1968	99.86
Mar. 15, 1968	99.95
Mar. 20, 1968	99.99
Mar. 25, 1968	99.98
Mar. 31, 1968	100.03
Apr. 5, 1968	100.07
Apr. 10, 1968	100.16
Apr. 15, 1968	100.14
Apr. 20, 1968	100.15
Apr. 25, 1968	99.90
Apr. 30, 1968	99.71
May 5, 1968	99.63
May 10, 1968	99.48
May 15, 1968	98.54
May 20, 1968	98.32
May 25, 1968	98.12
May 31, 1968	98.03
June 5, 1968	97.97
June 10, 1968	97.97
June 15, 1968	97.98
June 20, 1968	97.98
June 25, 1968	98.01
June 30, 1968	98.07
July 5, 1968	98.07
July 10, 1968	98.12
July 15, 1968	98.17
July 20, 1968	98.28
July 25, 1968	98.36

DATE	WATER LEVEL
Well YR-70-34-501—Cont'd.	
July 31, 1968	98.45
Aug. 5, 1968	98.53
Aug. 10, 1958	98.61
Aug. 15, 1968	98.70
Aug. 20, 1968	98.83
Aug. 26, 1968	98.93
Aug. 31, 1968	99.07
Sept. 5, 1968	99.22
Sept. 10, 1968	99.32
Sept. 15, 1968	99.45
Sept. 20, 1968	99.57
Sept. 25, 1968	99.70
Sept. 30, 1968	99.84
Oct. 5, 1968	99.95
Oct. 10, 1968	100.05
Oct. 16, 1968	100.16
Oct. 20, 1968	100.30
Oct. 25, 1968	100.40
Oct. 31, 1968	100.54
Nov. 5, 1968	100.63
Nov. 10, 1968	100.82
Nov. 15, 1968	100.84
Nov. 20, 1968	101.04
Nov. 25, 1968	101.07
Nov. 30, 1968	101.19
Dec. 5, 1968	101.26
Dec. 10, 1968	101.34
Dec. 15, 1968	101.44
Dec. 20, 1968	101.50
Dec. 25, 1968	101.61
Dec. 31, 1968	101.83
Jan. 5, 1969	101.86
Jan. 10, 1969	101.98
Jan. 15, 1969	102.03
Jan. 20, 1969	102.07
Jan. 25, 1969	102.19
Jan. 31, 1969	102.28

DATE	WATER LEVEL
Well YR-70-34-501—Cont'd.	
Feb. 5, 1969	102.33
Feb. 10, 1969	102.38
Feb. 15, 1969	102.42
Feb. 20, 1969	102.42
Feb. 25, 1969	102.49
Feb. 28, 1969	102.54
Mar. 5, 1969	102.61
Mar. 10, 1969	102.67
Mar. 15, 1969	102.77
Mar. 20, 1969	102.79
Mar. 25, 1969	102.78
Mar. 31, 1969	102.81
Apr. 5, 1969	102.88
Apr. 10, 1969	102.90
Apr. 15, 1969	101.58
Apr. 20, 1969	100.35
Apr. 25, 1969	100.33
Apr. 30, 1969	100.60
May 5, 1969	100.67
May 10, 1969	100.55
May 15, 1969	100.61
May 20, 1969	100.13
May 25, 1969	99.93
May 31, 1969	100.02
June 5, 1969	100.16
June 10, 1969	100.02
June 15, 1969	100.06
June 20, 1969	100.12
June 25, 1969	100.20
June 30, 1969	100.34
July 5, 1969	100.46
July 10, 1969	100.65
July 15, 1969	100.85
July 20, 1969	101.03
July 25, 1969	101.15
July 31, 1969	101.25
Aug. 5, 1969	101.51

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-34-501—Cont'd.	
Aug. 10, 1969	101.67
Aug. 15, 1969	101.80
Aug. 20, 1969	101.97
Aug. 25, 1969	102.11
Aug. 31, 1969	100.06
Sept. 5, 1969	100.56
Sept. 10, 1969	100.98
Sept. 15, 1969	101.25
Sept. 20, 1969	101.23
Sept. 25, 1969	101.26
Sept. 30, 1969	101.34
Oct. 5, 1969	97.95
Oct. 10, 1969	95.98
Oct. 15, 1969	94.65
Oct. 20, 1969	94.03
Oct. 25, 1969	93.73
Oct. 31, 1969	90.65
Nov. 5, 1969	90.03
Nov. 10, 1969	89.76
Nov. 15, 1969	89.61
Nov. 20, 1969	89.58
Well YR-70-41-304	
Owner: Patricio Confreres	
Aug. 20, 1937	37.54
Sept. 25, 1937	38.84
Oct. 31, 1937	38.85
Nov. 16, 1937	38.87
Dec. 18, 1937	39.22
Jan. 18, 1938	35.13
Feb. 24, 1938	37.19
Mar. 17, 1938	37.15
Apr. 23, 1938	37.17
May 26, 1938	37.38
June 29, 1938	37.78
July 28, 1938	37.39
Aug. 24, 1938	37.40
Sept. 19, 1938	37.03
Oct. 28, 1938	37.73
Dec. 10, 1938	37.05
Jan. 26, 1939	37.23
Mar. 1, 1939	37.37
Apr. 1, 1939	37.85
Apr. 29, 1939	38.32
June 7, 1939	37.60
July 7, 1939	38.71
July 27, 1939	38.56
Aug. 14, 1939	38.02
Sept. 13, 1939	38.01
Nov. 3, 1939	38.18
Dec. 5, 1939	38.09
Jan. 16, 1940	38.46
Feb. 22, 1940	38.75
Feb. 23, 1940	38.75
Mar. 19, 1940	38.94
Apr. 25, 1940	39.81
May 21, 1940	38.21
June 19, 1940	38.08
July 23, 1940	37.78
Aug. 21, 1940	37.78
Sept. 19, 1940	38.16
Oct. 22, 1940	38.65
Dec. 3, 1940	39.20
Jan. 21, 1941	39.26
May 27, 1941	38.65
Aug. 12, 1941	38.62
Nov. 13, 1941	38.60
Apr. 7, 1942	39.59
Aug. 5, 1942	41.32
Dec. 1, 1942	37.14
Apr. 27, 1943	37.99
Aug. 30, 1943	37.89
Dec. 17, 1943	39.07
May 3, 1944	39.61
Aug. 18, 1944	40.42
Dec. 23, 1944	40.38
June 5, 1945	41.60
Apr. 2, 1946	41.95
June 24, 1947	41.48
Nov. 3, 1947	41.07
Apr. 20, 1948	41.95
Aug. 10, 1948	37.10
Jan. 8, 1949	40.09
Mar. 8, 1949	37.46
Apr. 14, 1949	37.81
Aug. 27, 1949	36.90
Dec. 20, 1949	36.86
Apr. 5, 1950	37.30
Aug. 10, 1950	38.19
Dec. 7, 1950	40.12
Aug. 15, 1951	42.08
Dec. 19, 1951	42.65
Mar. 14, 1952	42.75
Aug. 7, 1952	41.74
Sept. 12, 1952	41.70
Dec. 3, 1952	42.10
Apr. 7, 1953	43.20
Aug. 10, 1953	49.86
Nov. 18, 1953	41.35
Apr. 12, 1954	42.65
June 1, 1954	39.85
July 13, 1954	37.86
July 21, 1954	37.57
Aug. 22, 1954	37.69
Nov. 10, 1954	37.19
Jan. 13, 1955	37.63
Mar. 11, 1955	39.19
May 12, 1955	39.83
July 12, 1955	40.39
Sept. 12, 1955	40.64
Nov. 10, 1955	37.74
Jan. 11, 1956	37.91

Table 6.--Water Levels in Wells--Continued

DATE	WATER LEVEL
Well YR-70-41-304--Cont'd.	
Mar. 13, 1956	39.86
May 10, 1956	39.97
July 11, 1956	39.41
Nov. 14, 1956	41.00
Jan. 10, 1957	42.19
Mar. 13, 1957	41.65
May 15, 1957	38.05
July 10, 1957	37.30
Sept. 11, 1957	37.75
Nov. 6, 1957	37.48
Jan. 15, 1958	37.92
Mar. 26, 1958	37.70
May 8, 1958	37.46
July 10, 1958	36.62
Sept. 19, 1958	36.36
Nov. 12, 1958	35.97
Jan. 28, 1959	36.11
Mar. 19, 1959	36.21
May 14, 1959	36.32
July 14, 1959	36.22
Sept. 16, 1959	36.18
Nov. 18, 1959	36.00
Jan. 21, 1960	36.09
Mar. 15, 1960	36.15
May 17, 1960	36.33
July 19, 1960	36.51
Sept. 14, 1960	36.81
Nov. 16, 1960	36.50
Jan. 17, 1961	36.77
Mar. 21, 1961	36.84
May 22, 1961	37.38
July 25, 1961	36.72
Sept. 19, 1961	36.25
Nov. 20, 1961	36.84
Mar. 23, 1962	37.15
May 24, 1962	37.33
July 24, 1962	37.83

DATE	WATER LEVEL
Well YR-70-41-304--Cont'd.	
Sept. 25, 1962	38.76
Nov. 21, 1962	39.74
Jan. 22, 1963	40.49
Mar. 20, 1963	40.07
May 21, 1963	39.31
July 24, 1963	40.10
Sept. 26, 1963	40.70
Nov. 21, 1963	41.82
Jan. 22, 1964	40.69
Mar. 25, 1964	40.77
May 20, 1964	40.15
July 22, 1964	40.26
Sept. 23, 1964	39.30
Nov. 19, 1964	37.20
Jan. 20, 1965	36.69
Mar. 23, 1965	36.29
May 20, 1965	36.21
July 21, 1965	36.57
Aug. 4, 1965	36.16
Sept. 1, 1965	36.18
Oct. 6, 1965	36.74
Nov. 1, 1965	36.89
Dec. 3, 1965	37.56
Jan. 17, 1966	37.64
Mar. 3, 1966	38.46
Apr. 12, 1966	39.08
May 6, 1966	37.12
June 13, 1966	36.39
July 13, 1966	36.67
July 30, 1966	36.49
Aug. 6, 1956	36.63
Sept. 9, 1966	37.70
Oct. 25, 1966	36.75
Nov. 18, 1966	36.51
Dec. 1, 1966	36.57
Jan. 9, 1967	36.53
Feb. 2, 1967	37.00

DATE	WATER LEVEL
Well YR-70-41-304--Cont'd.	
Mar. 23, 1967	36.92
Apr. 4, 1967	36.99
May 1, 1967	37.19
June 12, 1967	37.49
July 14, 1967	38.33
Aug. 7, 1967	38.14
Sept. 20, 1957	37.92
Oct. 9, 1967	38.57
Nov. 3, 1967	38.68
Dec. 8, 1967	38.48
Jan. 11, 1968	38.96
Feb. 7, 1968	38.49
Mar. 11, 1968	38.10
Apr. 5, 1968	38.43
May 6, 1968	38.07
June 5, 1968	37.64
July 2, 1968	37.48
Aug. 22, 1968	37.90
Sept. 10, 1968	38.08
Oct. 8, 1968	38.09
Nov. 4, 1968	38.41
Dec. 6, 1968	38.70
Jan. 6, 1969	39.26
Feb. 26, 1969	39.65
Mar. 17, 1969	39.85
Apr. 14, 1969	39.13
May 12, 1969	38.27
June 4, 1969	38.40
July 15, 1969	38.94
Aug. 18, 1969	39.04
Sept. 15, 1969	38.68
Oct. 20, 1969	36.85
Nov. 18, 1969	36.29
Dec. 11, 1969	35.99
Jan. 23, 1970	35.84
Feb. 10, 1970	35.94

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-106	
Owner: L. A. McNutt	
Aug. 20, 1937	68.45
Sept. 25, 1937	72.36
Oct. 20, 1937	72.30
Nov. 17, 1937	73.87
Dec. 18, 1937	73.00
Jan. 8, 1938	70.34
Feb. 24, 1938	69.60
Mar. 19, 1938	70.78
Apr. 23, 1938	70.22
May 26, 1938	73.34
July 28, 1938	72.67
Aug. 24, 1938	73.79
Sept. 18, 1938	70.44
Oct. 28, 1938	71.53
Dec. 10, 1938	69.64
Jan. 26, 1939	69.34
Mar. 1, 1939	70.67
Apr. 29, 1939	75.20
June 7, 1939	74.16
July 7, 1939	75.70
Aug. 14, 1939	72.60
Sept. 13, 1939	73.39
Dec. 5, 1939	71.55
June 15, 1940	73.22
Feb. 23, 1940	72.78
Mar. 19, 1940	73.74
Apr. 24, 1940	73.15
May 21, 1940	73.13
June 18, 1940	71.29
Aug. 21, 1940	70.60
Sept. 19, 1940	72.08
Oct. 22, 1940	73.77
Dec. 3, 1940	72.00
Aug. 13, 1941	74.26
Apr. 7, 1942	74.49
Aug. 5, 1942	76.49

DATE	WATER LEVEL
Well YR-70-42-106—Cont'd.	
Dec. 1, 1942	69.68
Dec. 17, 1943	72.62
May 2, 1944	76.61
Aug. 18, 1944	81.49
Dec. 23, 1944	74.76
Apr. 2, 1946	78.89
June 24, 1947	77.70
Nov. 3, 1947	76.65
Apr. 20, 1948	82.50
Jan. 8, 1949	79.40
Mar. 8, 1949	72.43
Apr. 14, 1949	70.10
Aug. 27, 1949	71.85
Dec. 20, 1949	67.35
Apr. 5, 1950	68.14
Aug. 10, 1950	81.13
Dec. 7, 1950	78.44
Aug. 15, 1951	86.23
Dec. 20, 1951	82.36
Aug. 7, 1952	93.87
Sept. 12, 1952	90.69
Dec. 3, 1952	86.15
Apr. 7, 1953	80.40
Aug. 11, 1953	88.23
Nov. 19, 1953	77.49
Apr. 12, 1954	79.31
June 1, 1954	74.71
July 14, 1954	77.39
July 22, 1954	75.92
Aug. 23, 1954	80.28
Nov. 11, 1954	75.70
Jan. 13, 1955	69.17
Mar. 11, 1955	71.77
May 12, 1955	75.30
July 12, 1955	76.40
Sept. 12, 1955	75.26
Nov. 10, 1955	71.62

DATE	WATER LEVEL
Well YR-70-42-106—Cont'd.	
Jan. 11, 1956	80.56
Mar. 13, 1956	77.69
May 10, 1956	79.32
July 11, 1956	80.80
Aug. 28, 1956	88.71
Nov. 14, 1956	84.19
Jan. 10, 1957	85.75
Mar. 13, 1957	87.86
May 15, 1957	84.82
July 10, 1957	84.70
Sept. 11, 1957	72.96
Nov. 6, 1957	71.49
Jan. 15, 1958	72.80
May 8, 1958	71.25
July 10, 1958	67.90
Sept. 19, 1958	67.54
Jan. 28, 1959	65.74
Mar. 19, 1959	66.47
May 14, 1959	66.08
July 14, 1959	65.58
Sept. 16, 1959	65.06
Nov. 18, 1959	64.02
Jan. 21, 1960	64.55
Mar. 15, 1960	64.46
May 17, 1960	67.68
July 19, 1960	68.54
Sept. 14, 1960	68.66
Nov. 16, 1960	67.69
Jan. 17, 1961	67.30
Mar. 21, 1961	68.71
May 22, 1961	70.48
July 25, 1961	69.42
Sept. 19, 1961	68.39
Nov. 20, 1961	67.24
Mar. 23, 1962	67.96
May 24, 1962	72.13
July 25, 1962	74.85

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-106—Cont'd.	
Sept. 25, 1962	76.71
Nov. 21, 1962	77.35
Jan. 22, 1963	76.32
Mar. 20, 1963	77.19
May 21, 1963	83.12
July 24, 1963	83.73
Sept. 25, 1963	82.61
Nov. 21, 1963	80.03
Jan. 27, 1964	78.68
Mar. 25, 1964	79.18
May 20, 1964	80.56
May 21, 1964	80.32
July 22, 1964	88.80
Sept. 23, 1964	82.46
Nov. 19, 1964	72.39
Jan. 20, 1965	73.75
Mar. 23, 1965	69.77
May 20, 1965	69.13
June 7, 1965	70.72
July 7, 1965	• 73.43
Aug. 2, 1965	• 77.90
Sept. 1, 1965	76.38
Oct. 6, 1965	70.80
Nov. 1, 1965	72.57
Dec. 3, 1965	70.12
Jan. 17, 1966	73.23
Mar. 3, 1966	72.49
Apr. 12, 1966	76.15
May 5, 1966	71.90
June 13, 1966	73.14
July 13, 1966	73.45
Aug. 1, 1966	81.49
Sept. 9, 1966	75.21
Oct. 25, 1966	76.89
Nov. 18, 1966	77.36
Dec. 1, 1966	74.69
Jan. 9, 1967	71.27
Feb. 16, 1967	72.13
Mar. 23, 1967	74.20
Apr. 4, 1967	74.04
May 1, 1967	74.90
June 12, 1967	76.19
July 14, 1967	79.54
Aug. 7, 1967	81.50
Aug. 28, 1967	78.59
Sept. 20, 1967	74.90
Oct. 6, 1967	73.48
Nov. 3, 1967	73.70
Dec. 7, 1967	73.15
Jan. 11, 1968	73.30
Jan. 31, 1968	73.84
Feb. 7, 1968	74.32
Feb. 26, 1968	72.97
Mar. 11, 1968	72.60
Apr. 5, 1968	74.31
Apr. 22, 1968	73.54
May 6, 1968	74.38
May 20, 1968	74.12
June 5, 1968	74.21
June 11, 1968	75.64
June 18, 1968	74.70
July 2, 1968	75.02
Aug. 12, 1968	76.82
Aug. 22, 1968	78.33
Aug. 27, 1968	78.13
Sept. 10, 1968	76.64
Oct. 8, 1968	75.62
Oct. 23, 1968	76.75
Nov. 4, 1968	76.51
Nov. 22, 1968	75.78
Dec. 6, 1968	75.05
Jan. 6, 1969	75.03
Feb. 26, 1969	74.79
Mar. 17, 1969	75.36
Apr. 14, 1969	74.76
May 12, 1969	73.34
June 4, 1969	74.47
July 15, 1969	80.83
Aug. 18, 1969	79.48
Sept. 15, 1969	76.62
Oct. 20, 1969	73.11
Nov. 18, 1969	68.48
Dec. 11, 1969	65.88
Jan. 23, 1970	64.04
Feb. 10, 1970	64.92
Well YR-70-42-205	
Owner: U.S. Air Force	
Aug. 23, 1954	70.56
Nov. 11, 1954	68.06
Jan. 13, 1955	68.88
Mar. 11, 1955	72.30
May 12, 1955	76.56
July 12, 1955	77.59
Sept. 13, 1955	77.21
Nov. 10, 1955	72.93
Jan. 11, 1956	74.44
Mar. 14, 1956	75.92
May 10, 1956	77.52
July 11, 1956	79.22
Nov. 14, 1956	80.07
Jan. 10, 1957	80.98
Mar. 13, 1957	81.72
May 15, 1957	76.38
July 10, 1957	70.25
Sept. 11, 1957	70.18
Oct. 31, 1957	69.94
Nov. 5, 1957	69.90
Nov. 10, 1957	70.10
Nov. 15, 1957	69.86
Nov. 20, 1957	70.06
Nov. 25, 1957	70.11

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
Nov. 30, 1957	70.44
Dec. 5, 1957	70.25
Dec. 10, 1957	70.51
Dec. 15, 1957	70.45
Dec. 20, 1957	70.62
Dec. 25, 1957	70.76
Dec. 31, 1957	71.10
Jan. 5, 1958	70.93
Jan. 10, 1958	70.87
Jan. 15, 1958	71.08
Jan. 20, 1958	70.93
Jan. 25, 1958	70.92
Jan. 31, 1958	70.95
Feb. 5, 1958	70.97
Feb. 10, 1958	71.13
Feb. 15, 1958	71.25
Feb. 20, 1958	71.38
Feb. 25, 1958	70.98
Feb. 28, 1958	71.13
Mar. 5, 1958	70.90
Mar. 10, 1958	70.81
Mar. 15, 1958	70.72
Mar. 20, 1958	70.65
Mar. 25, 1958	70.51
Mar. 31, 1958	70.30
Apr. 5, 1958	70.13
Apr. 10, 1958	70.30
Apr. 15, 1958	70.16
Apr. 20, 1958	70.01
Apr. 25, 1958	70.15
Apr. 30, 1958	70.01
May 5, 1958	69.88
May 10, 1958	69.82
May 15, 1958	71.07
May 20, 1958	70.12
May 25, 1958	69.70
May 31, 1958	69.51
June 5, 1958	69.55
June 10, 1958	69.26
June 15, 1958	69.28
June 20, 1958	68.54
June 25, 1958	67.98
June 30, 1958	67.52
July 5, 1958	67.27
July 10, 1958	68.20
July 15, 1958	67.57
July 20, 1958	66.93
July 25, 1958	66.55
July 31, 1958	66.10
Aug. 5, 1958	65.91
Aug. 10, 1958	65.68
Aug. 15, 1958	65.47
Aug. 20, 1958	65.37
Aug. 25, 1958	65.28
Aug. 31, 1958	65.21
Sept. 5, 1958	65.08
Sept. 10, 1958	64.99
Sept. 15, 1958	64.90
Sept. 20, 1958	64.18
Sept. 25, 1958	63.75
Sept. 30, 1958	63.64
Oct. 5, 1958	63.57
Oct. 10, 1958	63.51
Oct. 15, 1958	63.30
Oct. 20, 1958	62.95
Oct. 25, 1958	63.03
Oct. 31, 1958	62.85
Nov. 5, 1958	62.58
Nov. 10, 1958	62.57
Nov. 15, 1958	62.41
Nov. 20, 1958	62.53
Nov. 25, 1958	62.33
Nov. 30, 1958	62.43
Dec. 5, 1958	62.11
Dec. 10, 1958	62.41
Dec. 15, 1958	62.44
Dec. 20, 1958	62.22
Dec. 25, 1958	62.22
Dec. 31, 1958	62.23
Jan. 5, 1959	62.39
Jan. 10, 1959	62.28
Jan. 15, 1959	62.12
Jan. 20, 1959	61.89
Jan. 25, 1959	62.17
Jan. 31, 1959	62.32
Feb. 5, 1959	62.10
Feb. 10, 1959	62.09
Feb. 15, 1959	62.26
Feb. 20, 1959	62.28
Feb. 25, 1959	62.07
Feb. 28, 1959	62.09
Mar. 5, 1959	62.15
Mar. 10, 1959	62.00
Mar. 15, 1959	62.13
Mar. 20, 1959	62.00
Mar. 25, 1959	62.05
Mar. 31, 1959	62.08
Apr. 5, 1959	62.13
Apr. 10, 1959	62.26
Apr. 15, 1959	62.12
Apr. 20, 1959	62.00
Apr. 25, 1959	62.08
Apr. 30, 1959	62.12
May 5, 1959	61.88
May 10, 1959	61.72
May 15, 1959	61.98
May 20, 1959	61.58
May 25, 1959	61.78
May 31, 1959	61.65
June 5, 1959	61.70
June 10, 1959	61.65

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
June 15, 1959	61.70
June 20, 1959	61.71
June 25, 1959	61.67
June 30, 1959	61.52
July 5, 1959	61.37
July 10, 1959	61.42
July 15, 1959	61.37
July 20, 1959	61.32
July 25, 1959	61.27
July 31, 1959	61.31
Aug. 5, 1959	61.18
Aug. 10, 1959	61.28
Aug. 15, 1959	61.35
Aug. 20, 1959	61.52
Aug. 25, 1959	61.54
Aug. 31, 1959	61.43
Sept. 5, 1959	61.50
Sept. 10, 1959	61.67
Sept. 15, 1959	61.38
Sept. 20, 1959	61.54
Sept. 25, 1959	61.48
Sept. 30, 1959	61.50
Oct. 5, 1959	61.58
Oct. 10, 1959	61.41
Oct. 15, 1959	61.35
Oct. 20, 1959	61.21
Oct. 25, 1959	61.11
Oct. 31, 1959	61.27
Nov. 5, 1959	61.15
Nov. 10, 1959	61.06
Nov. 16, 1959	61.10
Nov. 20, 1959	61.02
Nov. 25, 1959	61.02
Nov. 30, 1959	61.22
Dec. 5, 1959	61.30
Dec. 10, 1959	61.22
Dec. 15, 1959	61.33
Dec. 20, 1959	61.53
Dec. 25, 1959	61.36
Dec. 31, 1969	61.38
Jan. 5, 1960	61.54
Jan. 10, 1960	61.58
Jan. 15, 1960	61.62
Jan. 20, 1960	61.83
Jan. 25, 1960	61.58
Jan. 31, 1960	61.58
Feb. 5, 1960	61.82
Feb. 10, 1960	61.57
Feb. 15, 1960	61.85
Feb. 20, 1960	61.77
Feb. 25, 1960	61.83
Feb. 28, 1960	62.01
Mar. 5, 1960	62.05
Mar. 10, 1960	61.81
Mar. 15, 1960	61.92
Mar. 20, 1960	62.19
Mar. 25, 1960	62.16
Mar. 31, 1960	62.05
Apr. 5, 1960	62.36
Apr. 10, 1960	62.40
Apr. 15, 1960	62.37
Apr. 20, 1960	62.39
Apr. 25, 1960	62.43
Apr. 30, 1960	62.60
May 5, 1960	62.62
May 10, 1960	62.79
May 15, 1960	62.77
May 20, 1960	62.98
May 25, 1960	63.03
May 31, 1960	63.19
June 5, 1960	63.22
June 10, 1960	63.46
June 15, 1960	63.53
June 20, 1960	63.68
June 25, 1960	63.83
June 30, 1960	64.00
July 5, 1960	64.10
July 10, 1960	64.23
July 15, 1960	64.38
July 20, 1960	64.21
July 25, 1960	64.17
July 31, 1960	64.28
Aug. 5, 1960	64.42
Aug. 10, 1960	64.64
Aug. 15, 1960	64.27
Aug. 20, 1960	64.26
Aug. 25, 1960	64.37
Aug. 31, 1960	64.49
Sept. 5, 1960	64.43
Sept. 10, 1960	64.66
Sept. 15, 1960	64.62
Sept. 20, 1960	64.75
Sept. 25, 1960	64.81
Sept. 30, 1960	64.80
Oct. 5, 1960	64.81
Oct. 10, 1960	65.03
Oct. 15, 1960	65.07
Oct. 20, 1960	65.12
Oct. 25, 1960	64.97
Oct. 31, 1960	64.64
Nov. 5, 1960	64.60
Nov. 10, 1960	64.43
Nov. 15, 1960	64.13
Nov. 20, 1960	64.16
Nov. 25, 1960	64.05
Nov. 30, 1960	64.15
Dec. 5, 1960	63.94
Dec. 10, 1960	63.91
Dec. 15, 1960	63.90
Dec. 20, 1960	63.98
Dec. 25, 1960	63.98

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205--Cont'd.	
Dec. 31, 1960	63.92
Jan. 5, 1961	64.09
Jan. 10, 1961	64.07
Jan. 15, 1961	64.17
Jan. 20, 1961	64.30
Jan. 25, 1961	64.36
Jan. 31, 1961	64.32
Feb. 5, 1961	64.42
Feb. 10, 1961	64.48
Feb. 15, 1961	64.47
Feb. 20, 1961	64.61
Feb. 25, 1961	64.64
Feb. 28, 1961	64.68
Mar. 5, 1961	64.63
Mar. 10, 1961	64.81
Mar. 15, 1961	64.80
Mar. 20, 1961	65.10
Mar. 25, 1961	65.06
Mar. 31, 1961	65.22
Apr. 5, 1961	65.26
Apr. 10, 1961	65.37
Apr. 15, 1961	65.58
Apr. 20, 1961	65.79
Apr. 25, 1961	65.79
Apr. 30, 1961	65.91
May 5, 1961	66.40
May 10, 1961	66.60
May 15, 1961	66.88
May 20, 1961	67.09
May 25, 1961	66.93
May 31, 1961	66.93
June 5, 1961	66.95
June 10, 1961	66.78
June 15, 1961	66.60
June 20, 1961	65.96
June 25, 1961	65.75
June 30, 1961	65.70

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
July 5, 1961	65.60
July 10, 1961	65.38
July 16, 1961	65.18
July 20, 1961	65.05
July 25, 1961	64.64
July 31, 1961	64.00
Aug. 5, 1961	63.78
Aug. 10, 1961	63.69
Aug. 15, 1961	63.62
Aug. 20, 1961	63.01
Aug. 25, 1961	63.81
Aug. 31, 1961	63.46
Sept. 5, 1961	63.41
Sept. 10, 1961	63.13
Sept. 15, 1951	63.41
Sept. 20, 1961	63.02
Sept. 25, 1961	63.22
Sept. 30, 1961	63.13
Oct. 5, 1961	63.20
Oct. 10, 1961	63.14
Oct. 15, 1961	63.23
Oct. 20, 1961	63.15
Oct. 25, 1961	63.28
Oct. 31, 1961	63.36
Nov. 5, 1961	63.51
Nov. 10, 1961	63.38
Nov. 15, 1961	63.60
Nov. 20, 1961	63.80
Nov. 25, 1961	63.96
Nov. 30, 1961	63.98
Dec. 5, 1961	64.04
Dec. 10, 1961	64.16
Dec. 15, 1961	64.33
Dec. 20, 1961	64.48
Dec. 25, 1961	64.48
Dec. 31, 1961	64.67
Jan. 6, 1962	64.76

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
Jan. 10, 1962	65.32
Jan. 15, 1962	65.15
Jan. 20, 1962	65.14
Jan. 25, 1962	65.08
Jan. 31, 1962	65.30
Feb. 5, 1962	65.41
Feb. 10, 1962	65.62
Feb. 15, 1962	65.68
Feb. 20, 1962	65.85
Feb. 25, 1962	66.07
Feb. 28, 1962	66.41
Mar. 5, 1962	66.58
Mar. 10, 1962	66.48
Mar. 15, 1962	66.92
Mar. 20, 1962	66.65
Mar. 25, 1962	67.05
Mar. 31, 1962	67.32
Apr. 5, 1962	67.22
Apr. 10, 1962	67.32
Apr. 15, 1962	67.62
Apr. 20, 1962	67.68
Apr. 25, 1962	67.94
Apr. 30, 1962	67.96
May 5, 1962	68.20
May 10, 1962	68.39
May 15, 1962	68.58
May 20, 1962	68.66
May 25, 1962	68.90
May 31, 1962	69.09
June 5, 1962	69.30
June 10, 1962	69.53
June 15, 1962	69.53
June 20, 1962	69.87
June 25, 1962	70.08
June 30, 1962	70.15
July 5, 1962	70.38
July 10, 1962	70.68

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
July 15, 1962	70.95
July 20, 1962	71.26
July 25, 1962	71.41
July 31, 1962	71.73
Aug. 5, 1962	72.07
Aug. 10, 1962	72.37
Aug. 15, 1962	72.67
Aug. 20, 1962	72.92
Aug. 25, 1962	73.24
Aug. 31, 1962	73.47
Sept. 5, 1962	73.75
Sept. 10, 1962	74.03
Sept. 15, 1962	74.02
Sept. 20, 1962	74.25
Sept. 25, 1962	74.42
Sept. 30, 1962	74.52
Oct. 5, 1962	74.65
Oct. 10, 1962	74.83
Oct. 15, 1962	74.95
Oct. 20, 1962	74.90
Oct. 25, 1962	75.06
Oct. 31, 1962	74.80
Nov. 5, 1962	74.82
Nov. 10, 1962	74.82
Nov. 15, 1962	74.90
Nov. 20, 1962	75.06
Nov. 25, 1962	75.29
Nov. 30, 1962	75.31
Dec. 5, 1962	75.50
Dec. 10, 1962	75.44
Dec. 15, 1962	75.37
Dec. 20, 1962	75.52
Dec. 25, 1962	75.57
Dec. 31, 1962	75.62
Jan. 5, 1963	75.73
Jan. 10, 1963	75.58
Jan. 15, 1963	76.03
Jan. 20, 1963	76.02
Jan. 25, 1963	75.94
Jan. 31, 1963	76.23
Feb. 5, 1963	76.34
Feb. 10, 1963	76.19
Feb. 15, 1963	—
Feb. 20, 1963	—
Feb. 25, 1963	—
Feb. 28, 1963	—
Mar. 5, 1963	—
Mar. 10, 1963	—
Mar. 15, 1963	—
Mar. 20, 1963	77.02
Mar. 25, 1963	76.95
Mar. 31, 1963	77.07
Apr. 5, 1963	77.07
Apr. 10, 1963	77.02
Apr. 15, 1963	77.89
Apr. 20, 1963	77.98
Apr. 25, 1963	77.90
Apr. 30, 1963	78.06
May 5, 1963	77.93
May 10, 1963	77.62
May 15, 1963	77.63
May 20, 1963	77.75
May 25, 1963	77.42
May 31, 1963	77.35
June 5, 1963	77.43
June 10, 1963	77.46
June 15, 1963	77.56
June 20, 1963	77.40
June 25, 1963	77.36
June 30, 1963	77.36
July 5, 1963	77.41
July 10, 1963	77.47
July 15, 1963	77.60
July 20, 1963	77.76
July 25, 1963	77.92
July 31, 1963	78.09
Aug. 5, 1963	78.20
Aug. 10, 1963	78.27
Aug. 15, 1963	78.47
Aug. 20, 1963	78.53
Aug. 25, 1963	78.68
Aug. 31, 1963	78.81
Sept. 5, 1963	78.85
Sept. 10, 1963	78.94
Sept. 15, 1963	78.87
Sept. 20, 1963	78.81
Sept. 25, 1963	78.88
Sept. 30, 1963	78.98
Oct. 5, 1963	78.99
Oct. 10, 1963	78.98
Oct. 15, 1963	79.00
Oct. 20, 1963	78.95
Oct. 25, 1963	79.05
Oct. 31, 1963	79.13
Nov. 5, 1963	79.12
Nov. 10, 1963	79.33
Nov. 15, 1963	79.24
Nov. 20, 1963	79.24
Nov. 25, 1963	79.22
Nov. 30, 1963	79.34
Dec. 5, 1963	79.32
Dec. 10, 1963	79.15
Dec. 15, 1963	79.55
Dec. 20, 1963	79.31
Dec. 25, 1963	79.27
Dec. 31, 1963	79.44
Jan. 5, 1964	79.41
Jan. 10, 1964	—
Jan. 15, 1964	79.45
Jan. 20, 1964	79.59
Jan. 25, 1964	79.68

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.		Well YR-70-42-205—Cont'd.		Well YR-70-42-205—Cont'd.	
Jan. 31, 1964	79.69	Aug. 10, 1964	79.79	Feb. 20, 1965	64.07
Feb. 5, 1964	79.43	Aug. 15, 1964	79.86	Feb. 25, 1965	64.43
Feb. 10, 1964	79.62	Aug. 20, 1964	79.97	Feb. 28, 1965	63.95
Feb. 15, 1964	79.73	Aug. 25, 1964	80.16	Mar. 5, 1965	64.38
Feb. 20, 1964	79.75	Aug. 31, 1964	80.24	Mar. 10, 1965	64.39
Feb. 25, 1964	79.75	Sept. 5, 1964	80.35	Mar. 15, 1965	64.49
Feb. 28, 1964	79.78	Sept. 10, 1964	80.52	Mar. 20, 1965	64.92
Mar. 5, 1964	79.90	Sept. 15, 1964	80.55	Mar. 25, 1965	64.79
Mar. 10, 1964	80.06	Sept. 20, 1964	79.78	Mar. 31, 1965	65.16
Mar. 15, 1964	80.23	Sept. 25, 1964	73.46	Apr. 5, 1965	65.25
Mar. 20, 1964	80.19	Sept. 30, 1964	69.28	Apr. 10, 1965	65.28
Mar. 25, 1964	80.03	Oct. 5, 1964	68.44	Apr. 15, 1965	65.48
Mar. 31, 1964	80.86	Oct. 10, 1964	68.40	Apr. 20, 1965	65.66
Apr. 5, 1964	80.80	Oct. 15, 1964	68.44	Apr. 25, 1965	65.72
Apr. 10, 1964	80.73	Oct. 20, 1964	68.50	Apr. 30, 1965	65.43
Apr. 15, 1964	80.83	Oct. 25, 1964	68.15	May 5, 1965	65.29
Apr. 20, 1964	80.05	Oct. 31, 1964	67.84	May 10, 1965	65.46
Apr. 25, 1964	79 67	Nov. 5, 1964	67.71	May 15, 1965	65.55
Apr. 30, 1964	79.73	Nov. 10, 1964	67.21	May 20, 1965	65.55
May 5, 1964	79.85	Nov. 15, 1964	67.03	May 25, 1965	65.42
May 10, 1964	79.56	Nov. 20, 1964	66.75	May 31, 1965	65.68
May 15, 1964	78.84	Nov. 25, 1964	66.15	June 5, 1965	65.90
May 20, 1964	78.73	Nov. 30, 1964	66.17	June 10, 1965	66.23
May 25, 1964	78.57	Dec. 5, 1964	66.02	June 15, 1965	66.38
May 31, 1964	78.40	Dec. 10, 1964	65.53	June 20, 1965	66.83
June 5, 1964	78.05	Dec. 15, 1964	65.13	June 25, 1965	66.82
June 10, 1964	78.11	Dec. 20, 1964	65.81	June 30, 1965	66.87
June 15, 1964	78.43	Dec. 25, 1964	64.88	July 5, 1965	66.75
June 20, 1964	78.62	Dec. 31, 1964	64.65	July 10, 1965	66.65
June 25, 1964	78.91	Jan. 5, 1965	64.48	July 15, 1965	66.67
June 30, 1964	79.05	Jan. 10, 1965	64.42	July 20, 1965	66.59
July 5, 1964	79.19	Jan. 15, 1965	64.20	July 25, 1965	66.60
July 10, 1964	79.37	Jan. 20, 1965	64.11	July 31, 1965	66.60
July 15, 1964	79.59	Jan. 25, 1965	64.17	Aug. 5, 1965	66.52
July 20, 1964	79.71	Jan. 31, 1965	64.16	Aug. 10, 1965	66.39
July 25, 1964	79.74	Feb. 5, 1965	64.25	Aug. 15, 1965	66.44
July 31, 1964	79.74	Feb. 10, 1965	64.12	Aug. 20, 1965	66.55
Aug. 5, 1964	79.70	Feb. 15, 1965	64.17	Aug. 25, 1965	66.58

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
Aug. 31, 1965	66.61
Sept. 5, 1965	66.65
Sept. 10, 1965	66.67
Sept. 15, 1965	66.78
Sept. 20, 1965	66.94
Sept. 25, 1965	67.07
Sept. 30, 1965	66.88
Oct. 5, 1965	66.97
Oct. 10, 1965	67.02
Oct. 15, 1965	67.07
Oct. 20, 1965	67.15
Oct. 25, 1965	67.33
Oct. 31, 1965	67.50
Nov. 5, 1965	67.57
Nov. 10, 1965	67.69
Nov. 15, 1965	67.81
Nov. 20, 1965	67.87
Nov. 25, 1965	68.02
Nov. 30, 1965	68.41
Dec. 5, 1965	68.44
Dec. 10, 1965	68.56
Dec. 15, 1965	68.75
Dec. 20, 1965	69.00
Dec. 25, 1965	69.32
Dec. 31, 1965	69.38
Jan. 5, 1966	69.78
Jan. 10, 1966	70.11
Jan. 15, 1966	70.22
Jan. 20, 1966	70.65
Jan. 25, 1966	70.92
Jan. 31, 1966	71.10
Feb. 5, 1966	71.66
Feb. 10, 1966	72.04
Feb. 15, 1966	72.57
Feb. 20, 1966	73.01
Feb. 25, 1966	73.17
Feb. 28, 1966	73.31
Mar. 5, 1966	73.77
Mar. 10, 1966	73.88
Mar. 15, 1966	74.00
Mar. 20, 1966	74.23
Mar. 25, 1966	74.57
Mar. 31, 1966	74.82
Apr. 5, 1966	75.19
Apr. 10, 1966	75.24
Apr. 15, 1966	75.68
Apr. 20, 1966	75.51
Apr. 25, 1966	75.16
Apr. 30, 1966	73.90
May 5, 1966	72.92
May 10, 1966	72.14
May 15, 1966	71.69
May 20, 1966	71.05
May 25, 1966	70.60
May 31, 1966	70.12
June 5, 1966	69.67
June 10, 1966	69.46
June 15, 1966	68.86
June 20, 1966	68.65
June 25, 1966	68.43
June 30, 1966	68.04
July 5, 1966	67.96
July 10, 1966	67.97
July 15, 1966	67.94
July 20, 1966	67.95
July 25, 1966	68.33
July 31, 1966	68.57
Aug. 5, 1966	68.66
Aug. 10, 1966	68.75
Aug. 15, 1966	68.92
Aug. 20, 1966	68.94
Aug. 25, 1966	69.23
Aug. 31, 1966	69.16
Sept. 5, 1966	69.34
Sept. 10, 1966	69.35
Sept. 15, 1966	69.32
Sept. 20, 1966	69.39
Sept. 25, 1966	69.22
Sept. 30, 1966	69.23
Oct. 5, 1966	69.63
Oct. 10, 1966	69.36
Oct. 15, 1966	69.35
Oct. 20, 1966	69.16
Oct. 25, 1966	69.15
Oct. 31, 1966	68.78
Nov. 5, 1966	68.89
Nov. 10, 1966	68.82
Nov. 15, 1966	68.82
Nov. 20, 1966	68.74
Nov. 25, 1966	68.63
Nov. 30, 1966	68.60
Dec. 5, 1966	68.44
Dec. 10, 1966	68.70
Dec. 15, 1966	68.45
Dec. 20, 1966	68.38
Dec. 25, 1966	68.41
Dec. 31, 1966	68.37
Jan. 5, 1967	68.36
Jan. 10, 1967	68.61
Jan. 15, 1967	68.48
Jan. 20, 1967	68.40
Jan. 25, 1967	68.28
Jan. 31, 1967	68.39
Feb. 5, 1967	68.32
Feb. 10, 1967	68.39
Feb. 15, 1967	68.61
Feb. 20, 1967	68.78
Feb. 25, 1967	68.94
Feb. 28, 1967	68.93
Mar. 5, 1967	68.64
Mar. 10, 1967	69.03

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
Mar. 15, 1967	69.20
Mar. 20, 1967	69.26
Mar. 25, 1967	69.23
Mar. 31, 1967	69.54
Apr. 5, 1967	69.72
Apr. 10, 1967	69.88
Apr. 15, 1967	70.10
Apr. 20, 1967	70.15
Apr. 25, 1967	70.32
Apr. 30, 1967	70.36
May 5, 1967	70.52
May 10, 1967	70.54
May 15, 1967	70.97
May 20, 1967	70.85
May 25, 1967	71.14
May 31, 1967	71.24
June 5, 1967	71.57
June 10, 1967	71.52
June 15, 1967	71.76
June 20, 1967	71.90
June 25, 1967	72.20
June 30, 1967	72.40
July 5, 1967	72.69
July 10, 1967	72.97
July 15, 1967	73.33
July 20, 1967	73.69
July 25, 1967	73.79
July 31, 1967	74.08
Aug. 5, 1967	74.37
Aug. 10, 1967	74.64
Aug. 15, 1967	74.76
Aug. 20, 1967	74.95
Aug. 25, 1967	75.09
Aug. 31, 1967	75.23
Sept. 5, 1967	74.62
Sept. 10, 1967	74.16
Sept. 15, 1967	74.06
Sept. 20, 1967	73.54
Sept. 26, 1967	73.46
Sept. 30, 1967	73.50
Oct. 5, 1967	73.68
Oct. 10, 1967	73.85
Oct. 15, 1967	73.97
Oct. 20, 1967	74.26
Oct. 25, 1967	74.30
Oct. 31, 1967	74.30
Nov. 5, 1967	74.54
Nov. 10, 1967	74.38
Nov. 16, 1967	74.37
Nov. 20, 1967	74.20
Nov. 25, 1967	74.21
Nov. 30, 1967	74.28
Dec. 5, 1967	74.29
Dec. 10, 1967	74.42
Dec. 15, 1967	74.53
Dec. 20, 1967	74.41
Dec. 25, 1967	74.47
Dec. 31, 1967	74.60
Jan. 5, 1968	74.78
Jan. 10, 1968	74.86
Jan. 15, 1968	74.97
Jan. 20, 1968	75.18
Jan. 25, 1968	74.99
Jan. 31, 1968	75.04
Feb. 5, 1968	75.13
Feb. 10, 1968	74.81
Feb. 15, 1968	74.91
Feb. 20, 1968	74.63
Feb. 25, 1968	74.77
Feb. 28, 1968	74.86
Mar. 5, 1968	74.64
Mar. 10, 1968	74.45
Mar. 15, 1968	74.72
Mar. 20, 1968	74.61
Mar. 25, 1968	74.64
Mar. 31, 1968	74.67
Apr. 5, 1968	74.89
Apr. 10, 1968	74.98
Apr. 15, 1968	74.82
Apr. 20, 1968	74.53
Apr. 25, 1968	74.34
Apr. 30, 1968	74.37
May 5, 1968	74.27
May 10, 1968	74.10
May 15, 1968	73.78
May 20, 1968	73.59
May 25, 1968	73.24
May 31, 1968	73.03
June 5, 1968	72.88
June 10, 1968	72.86
June 15, 1968	73.73
June 20, 1968	74.00
June 25, 1968	73.70
June 30, 1968	74.42
July 5, 1968	74.33
July 10, 1968	74.34
July 15, 1968	74.37
July 20, 1968	74.37
July 25, 1968	74.42
July 31, 1968	74.48
Aug. 5, 1968	74.59
Aug. 10, 1968	74.64
Aug. 15, 1968	74.74
Aug. 20, 1968	74.93
Aug. 25, 1968	75.05
Aug. 31, 1968	75.15
Sept. 5, 1968	75.23
Sept. 10, 1968	75.23
Sept. 15, 1968	75.08
Sept. 20, 1968	75.24
Sept. 25, 1968	75.73

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-205—Cont'd.	
Sept. 30, 1968	76.14
Oct. 5, 1968	76.03
Oct. 10, 1968	76.23
Oct. 15, 1968	76.05
Oct. 20, 1968	76.17
Oct. 25, 1968	76.23
Oct. 31, 1968	76.13
Nov. 5, 1968	76.05
Nov. 10, 1968	76.06
Nov. 15, 1968	76.16
Nov. 20, 1968	76.36
Nov. 25, 1968	76.23
Nov. 30, 1968	76.33
Dec. 5, 1968	76.92
Dec. 10, 1968	76.45
Dec. 15, 1968	76.42
Dec. 20, 1968	76.30
Dec. 25, 1968	76.25
Dec. 31, 1968	76.51
Jan. 5, 1969	76.32
Jan. 10, 1969	76.55
Jan. 15, 1969	76.42
Jan. 20, 1969	76.48
Jan. 25, 1969	76.68
Jan. 31, 1969	76.51
Feb. 5, 1969	76.41
Feb. 10, 1969	76.55
Feb. 15, 1969	76.40
Feb. 20, 1969	76.38
Feb. 25, 1969	76.47
Feb. 28, 1969	76.50
Mar. 5, 1969	76.31
Mar. 10, 1969	76.60
Mar. 15, 1969	76.39
Mar. 20, 1969	76.40
Mar. 25, 1969	76.70
Mar. 31, 1969	76.45
Apr. 5, 1969	76.45
Apr. 10, 1969	76.26
Apr. 15, 1969	75.89
Apr. 20, 1969	75.68
Apr. 25, 1969	75.07
Apr. 30, 1969	74.87
May 5, 1969	74.25
May 10, 1969	73.37
May 15, 1969	73.03
May 20, 1969	73.34
May 25, 1969	73.25
May 31, 1969	72.94
June 5, 1969	73.64
June 10, 1969	73.64
June 15, 1969	73.74
June 20, 1969	73.67
June 25, 1969	73.65
June 30, 1969	73.84
July 5, 1969	73.81
July 10, 1969	73.97
July 15, 1969	74.07
July 20, 1969	74.22
July 25, 1969	74.21
July 31, 1969	74.37
Aug. 5, 1969	74.57
Aug. 10, 1969	74.63
Aug. 15, 1969	74.65
Aug. 20, 1969	74.85
Aug. 25, 1969	74.86
Aug. 31, 1969	74.12
Sept. 5, 1969	73.86
Sept. 10, 1969	73.99
Sept. 15, 1969	73.85
Sept. 20, 1969	73.88
Sept. 25, 1969	73.84
Sept. 30, 1969	73.97
Oct. 5, 1969	72.47
Oct. 10, 1969	70.39
Oct. 15, 1969	68.85
Oct. 20, 1969	68.53
Oct. 25, 1969	68.33
Oct. 31, 1969	67.45
Nov. 5, 1969	66.79
Nov. 10, 1969	66.37
Nov. 15, 1969	66.01
Nov. 20, 1969	65.78
Nov. 25, 1969	65.43
Nov. 30, 1969	64.44
Dec. 5, 1969	63.64
Dec. 10, 1969	63.45
Dec. 15, 1969	63.22
Dec. 20, 1969	62.82
Dec. 25, 1969	62.75
Dec. 31, 1969	62.61
Well YR-70-42-301	
Owner: Joe York, Jr.	
Aug. 20, 1937	38.58
Sept. 26, 1937	38.85
Oct. 22, 1937	39.31
Nov. 16, 1937	39.09
Dec. 18, 1937	39.29
Jan. 18, 1938	38.83
Feb. 24, 1938	38.76
Mar. 22, 1938	39.44
Apr. 23, 1938	38.86
May 26, 1938	39.10
June 29, 1938	39.60
July 28, 1938	38.53
Aug. 24, 1938	38.72
Sept. 18, 1938	38.95
Oct. 28, 1938	39.01
Dec. 10, 1938	38.75
Jan. 26, 1939	38.44
Mar. 1, 1939	38.29

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-70-42-301—Cont'd.	
Apr. 1, 1939	38.23
Apr. 29, 1939	38.50
June 7, 1939	38.69
July 7, 1939	39.02
Aug. 14, 1939	38.74
Sept. 13, 1939	38.73
Nov. 10, 1939	39.01
Dec. 5, 1939	38.81
Feb. 23, 1940	38.65
Mar. 19, 1940	38.56
Apr. 24, 1940	38.21
May 21, 1940	38.54
June 18, 1840	38.45
July 23, 1940	38.14
Aug. 22, 1940	38.62
Sept. 19, 1940	38.78
Oct. 22, 1940	39.13
Dec. 3, 1940	38.97
Jan. 21, 1941	38.97
May 27, 1941	39.33
Aug. 12, 1941	40.42
Nov. 13, 1941	39.86
Apr. 7, 1942	39.50
Well YR-71-04-402	
Owner: I. B. Newman	
May 11, 1967	302.9
Jan. 25, 1968	297.35
June 14, 1968	352.67
July 31, 1968	296.3
Dec. 12, 1968	296.5
Jan. 20, 1969	296.98
Mar. 24, 1969	297.4
June 19, 1969	298.3
Nov. 20, 1969	297.94
Well YR-71-07-601	
Owner: M. Rose, Jr.	
Feb. 3, 1968	127.75

DATE	WATER LEVEL
Well YR-71-07-601—Cont'd.	
Mar. 14, 1968	128.03
Apr. 26, 1968	128.24
May 16, 1968	126.80
June 26, 1968	127.72
Sept. 16, 1968	127.1
Dec. 27, 1968	127.93
Feb. 20, 1969	128.6
May 14, 1969	127.8
June 12, 1969	128.01
Dec. 3, 1969	123.32
Well YR-71-11-902	
Owner: Boye Babb, Jr.	
Apr. 25, 1950	394.9
Nov. 4, 1954	389.5
Jan. 15, 1964	393.4
July 16, 1964	393.0
Jan. 19, 1965	394.05
July 19, 1965	391.5
Jan. 28, 1966	392.58
July 14, 1966	393.62
Dec. 10, 1966	393.70
Jan. 12, 1967	394.20
June 8, 1967	393.65
Jan. 10, 1968	394.36
June 6, 1968	393.58
July 1, 1968	393.9
Jan. 16, 1969	393.35
Apr. 1, 1969	393.9
July 9, 1969	394.0
Oct. 6, 1969	393.50
Well YR-71-12-401	
Owner: J. H. Fisher	
Apr. 18, 1939	305.6
Dec. 8, 1964	298.3
Jan. 19, 1965	304.75
May 19, 1965	297.85
June 8, 1965	332.79

DATE	WATER LEVEL
Well YR-71-12-401—Cont'd.	
Jan. 28, 1966	299.36
June 10, 1966	346.10
Sept. 8, 1966	301.8
Jan. 12, 1967	300.30
June 8, 1967	306.80
June 29, 1967	*430.65
June 29, 1967	317.4
Jan. 25, 1968	300.15
July 1, 1968	305.36
Sept. 25, 1968	294.1
Jan. 16, 1969	302.80
July 9, 1969	301.95
Well YR-71-13-801	
Owner: Ross Estate	
Nov. 17, 1964	359.30
Jan. 18, 1965	356.35
Apr. 22, 1965	361.15
June 8, 1965	356.20
July 19, 1965	358.40
Oct. 15, 1965	355.65
Dec. 20, 1965	358.30
May 16, 1966	358.48
June 10, 1966	357.34
Sept. 8, 1966	360.93
Nov. 20, 1967	356.88
June 17, 1968	360.4
Sept. 5, 1968	358.8
Nov. 27, 1968	360.5
Feb. 7, 1969	358.5
Mar. 3, 1969	357.9
June 18, 1969	354.3
Nov. 20, 1969	356.88
Well YR-71-15-501	
Owner: Frank Greenwood, Jr.	
Jan. 29, 1965	396.75
Aug. 17, 1965	397.70
Sept. 10, 1965	396.70

Table 6.--Water Levels in Wells--Continued

DATE	WATER LEVEL
Well YR-71-15-501--Cont'd.	
Oct. 14, 1965	396.75
Oct. 25, 1965	397.00
Oct. 31, 1965	397.00
Nov. 5, 1965	397.04
Nov. 10, 1965	397.02
Nov. 15, 1965	397.00
Nov. 20, 1965	396.89
Nov. 25, 1965	396.85
Nov. 30, 1965	397.17
Dec. 5, 1965	397.10
Dec. 10, 1965	397.00
Dec. 15, 1965	397.10
Dec. 20, 1965	397.30
Dec. 25, 1965	397.69
Dec. 31, 1965	397.10
Jan. 5, 1966	397.30
Jan. 10, 1966	397.45
Jan. 15, 1966	397.20
Jan. 20, 1966	397.60
Jan. 25, 1966	397.55
Jan. 31, 1966	397.12
Feb. 5, 1965	397.58
Feb. 10, 1965	397.70
Feb. 15, 1966	397.80
Feb. 20, 1966	397.95
Feb. 25, 1966	397.72
Feb. 28, 1966	397.87
Mar. 5, 1966	398.25
Mar. 10, 1966	398.05
Mar. 15, 1966	397.96
Mar. 20, 1966	398.06
Mar. 25, 1966	398.10
Mar. 31, 1966	398.00
Apr. 5, 1966	398.15
Apr. 10, 1966	398.00
Apr. 15, 1966	398.40
Apr. 20, 1966	398.20
Apr. 25, 1966	398.28
Apr. 30, 1966	397.70
May 5, 1966	397.80
May 10, 1966	397.60
May 15, 1966	397.52
May 20, 1966	397.48
May 25, 1966	397.61
May 31, 1966	397.66
June 5, 1966	397.70
June 10, 1966	397.83
June 15, 1966	397.76
June 20, 1966	397.91
June 25, 1966	398.00
June 30, 1966	--
July 5, 1966	397.85
July 10, 1966	398.15
July 15, 1966	398.05
July 20, 1966	398.04
July 25, 1966	398.16
July 31, 1966	398.20
Aug. 5, 1966	398.21
Aug. 10, 1966	398.25
Aug. 15, 1966	398.30
Aug. 20, 1966	398.20
Aug. 25, 1966	398.50
Aug. 31, 1966	398.35
Sept. 5, 1966	398.42
Sept. 10, 1966	398.45
Sept. 15, 1966	398.35
Sept. 20, 1966	398.32
Sept. 25, 1966	398.25
Sept. 30, 1966	398.29
Oct. 5, 1966	398.71
Oct. 10, 1966	398.50
Oct. 15, 1956	398.70
Oct. 20, 1966	398.50
Oct. 25, 1966	398.45
Oct. 31, 1966	398.15
Nov. 5, 1966	398.45
Nov. 10, 1966	398.38
Nov. 15, 1966	398.57
Nov. 20, 1966	398.53
Nov. 25, 1966	398.55
Nov. 30, 1966	398.37
Dec. 5, 1966	398.35
Dec. 10, 1966	398.85
Dec. 15, 1966	398.55
Dec. 20, 1966	398.46
Dec. 25, 1966	398.65
Dec. 31, 1966	398.67
Jan. 5, 1967	398.83
Jan. 10, 1967	399.15
Jan. 15, 1967	399.15
Jan. 20, 1967	398.86
Jan. 25, 1967	398.83
Jan. 31, 1967	399.05
Feb. 5, 1967	399.04
Feb. 10, 1967	398.85
Feb. 15, 1967	399.04
Feb. 20, 1967	399.37
Feb. 25, 1967	--
Feb. 28, 1967	--
Mar. 5, 1967	--
Mar. 10, 1967	399.55
Mar. 15, 1967	399.75
Mar. 20, 1967	399.65
Mar. 25, 1967	399.55
Mar. 31, 1967	399.70
Apr. 5, 1967	399.75
Apr. 10, 1967	399.75
Apr. 15, 1967	399.80
Apr. 20, 1967	399.66
Apr. 25, 1967	399.85
Apr. 30, 1967	399.75

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-15-501—Cont'd.	
May 5, 1967	399.93
May 10, 1967	399.86
May 15, 1967	400.35
May 20, 1967	400.10
May 25, 1967	400.16
May 31, 1967	400.05
June 5, 1967	400.25
June 10, 1967	400.10
June 15, 1967	400.30
June 20, 1967	400.35
June 25, 1967	400.45
June 30, 1967	400.55
July 5, 1967	400.57
July 10, 1967	400.65
July 15, 1967	—
July 20, 1967	—
July 25, 1967	400.30
July 31, 1967	400.25
Aug. 5, 1967	400.26
Aug. 10, 1967	399.85
Aug. 15, 1967	399.87
Aug. 20, 1967	399.60
Aug. 25, 1967	399.43
Aug. 31, 1967	399.47
Sept. 5, 1967	399.24
Sept. 10, 1967	399.12
Sept. 15, 1967	399.20
Sept. 20, 1967	398.95
Sept. 25, 1967	398.95
Sept. 30, 1967	398.85
Oct. 5, 1967	398.82
Oct. 10, 1967	398.82
Oct. 15, 1967	398.75
Oct. 20, 1967	398.79
Oct. 26, 1967	398.93
Oct. 31, 1967	398.78
Nov. 5, 1967	398.98
Nov. 10, 1967	398.73
Nov. 15, 1967	398.85
Nov. 20, 1967	398.77
Nov. 25, 1967	398.85
Nov. 30, 1967	399.00
Dec. 5, 1967	398.95
Dec. 10, 1967	399.12
Dec. 15, 1967	399.60
Dec. 20, 1967	399.12
Dec. 25, 1967	399.24
Dec. 31, 1967	399.37
Jan. 5, 1968	399.41
Jan. 10, 1968	399.50
Jan. 15, 1968	399.35
Jan. 20, 1968	399.60
Jan. 25, 1968	399.25
Jan. 31, 1968	399.60
Feb. 5, 1968	399.77
Feb. 10, 1968	399.55
Feb. 15, 1968	399.95
Feb. 20, 1968	399.69
Feb. 25, 1968	399.96
Feb. 28, 1968	400.15
Mar. 5, 1968	399.82
Mar. 10, 1968	400.00
Mar. 15, 1968	400.30
Mar. 20, 1968	400.49
Mar. 25, 1968	400.06
Mar. 31, 1968	400.35
Apr. 5, 1968	400.35
Apr. 10, 1968	400.53
Apr. 15, 1968	400.25
Apr. 20, 1968	400.44
Apr. 25, 1968	400.26
Apr. 30, 1968	400.45
May 5, 1968	400.45
May 10, 1968	400.06
May 16, 1968	400.02
May 20, 1968	400.15
May 25, 1968	399.97
May 31, 1968	400.15
June 5, 1968	400.15
June 10, 1968	400.35
June 15, 1968	400.35
June 20, 1968	400.33
June 25, 1968	400.41
June 30, 1968	400.53
July 5, 1968	399.95
July 10, 1968	399.63
July 15, 1968	399.35
July 20, 1968	399.24
July 25, 1968	399.14
July 31, 1968	399.00
Aug. 5, 1968	399.05
Aug. 10, 1968	398.88
Aug. 15, 1968	398.93
Aug. 20, 1968	399.05
Aug. 25, 1968	399.14
Aug. 31, 1968	399.18
Sept. 5, 1968	399.15
Sept. 10, 1968	399.07
Sept. 15, 1968	398.87
Sept. 20, 1968	399.05
Sept. 25, 1968	399.26
Sept. 30, 1968	399.25
Oct. 5, 1968	398.99
Oct. 10, 1968	399.24
Oct. 15, 1968	399.04
Oct. 20, 1968	399.29
Oct. 25, 1968	399.46
Oct. 31, 1968	399.45
Nov. 5, 1968	399.35
Nov. 10, 1968	399.63
Nov. 15, 1968	399.60

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-15-501—Cont'd.	
Nov. 20, 1968	399.80
Nov. 25, 1968	399.42
Nov. 30, 1968	399.75
Dec. 5, 1968	399.75
Dec. 10, 1968	399.75
Dec. 15, 1968	399.84
Dec. 20, 1968	399.72
Dec. 25, 1968	399.56
Dec. 31, 1968	400.40
Jan. 5, 1969	399.76
Jan. 10, 1969	—
Jan. 15, 1969	—
Jan. 20, 1969	—
Jan. 25, 1969	400.47
Jan. 31, 1969	400.34
Feb. 5, 1969	400.15
Feb. 10, 1969	400.31
Feb. 15, 1969	400.40
Feb. 20, 1969	400.38
Feb. 25, 1969	400.35
Feb. 28, 1969	400.60
Mar. 5, 1969	400.25
Mar. 10, 1969	400.85
Mar. 15, 1969	400.75
Mar. 20, 1969	400.93
Mar. 25, 1969	401.15
Mar. 31, 1969	400.90
Apr. 5, 1969	400.90
Apr. 10, 1969	400.87
Apr. 15, 1969	400.90
Apr. 20, 1969	400.64
Apr. 25, 1969	400.10
Apr. 30, 1969	400.15
May 5, 1969	399.99
May 10, 1969	400.10
May 15, 1969	400.06
May 20, 1969	400.00
May 25, 1969	399.96
May 31, 1969	399.85
June 5, 1969	400.08
June 10, 1969	400.00
June 15, 1969	400.20
June 20, 1969	400.06
June 25, 1969	400.16
June 30, 1969	400.45
July 5, 1969	400.34
July 10, 1969	400.16
July 15, 1969	400.15
July 20, 1969	400.25
July 25, 1969	400.38
July 31, 1969	400.53
Aug. 5, 1969	400.45
Aug. 10, 1969	400.50
Aug. 15, 1969	400.43
Aug. 20, 1969	400.57
Aug. 25, 1969	400.56
Aug. 31, 1969	400.65
Sept. 5, 1969	400.65
Sept. 10, 1969	400.73
Sept. 15, 1969	400.40
Sept. 20, 1969	400.45
Sept. 25, 1969	400.37
Sept. 30, 1969	400.34
Oct. 5, 1969	400.58
Oct. 10, 1969	400.25
Oct. 15, 1969	400.55
Oct. 20, 1969	400.50
Oct. 25, 1969	400.57
Oct. 31, 1969	399.95
Nov. 5, 1969	399.70
Nov. 10, 1969	400.60
Nov. 15, 1969	400.05
Nov. 20, 1969	400.25
Nov. 25, 1969	400.15
Nov. 30, 1969	399.15
Dec. 5, 1969	398.60
Dec. 10, 1969	398.99
Dec. 15, 1969	398.67
Dec. 20, 1969	398.42
Dec. 25, 1969	398.25
Dec. 31, 1969	398.35
Well YR-71-16-402	
Owner: A. R. Brotherton Estate	
July 28, 1965	469.35
Oct. 14, 1965	471.55
Jan. 18, 1966	471.81
Apr. 29, 1966	471.30
July 26, 1966	472.25
Sept. 6, 1966	471.95
Dec. 12, 1966	470.10
June 15, 1967	473.15
Jan. 9, 1968	474.95
June 11, 1968	475.85
July 2, 1968	475.0
Oct. 12, 1968	473.4
Dec. 10, 1968	473.5
Jan. 7, 1969	474.50
Mar. 4, 1969	474.7
June 11, 1969	472.7
July 8, 1969	472.0
Dec. 9, 1969	461.25
Well YR-71-24-702	
Owner: B. L. and F. H. Whitehead	
May 14, 1964	395.5
July 22, 1964	395.4
Aug. 7, 1964	395.45
Sept. 4, 1964	395.25
Sept. 30, 1964	369.00
Nov. 16, 1964	377.10
Dec. 4, 1964	379.10
Jan. 20, 1965	383.60

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR- 71-24-702—Cont'd.	
Feb. 9, 1965	385.20
Mar. 10, 1965	386.15
Apr. 8, 1965	387.40
May 4, 1965	389.25
May 20, 1965	388.47
June 2, 1965	386.45
July 8, 1965	385.75
Aug. 13, 1965	388.35
Sept. 9, 1965	387.55
Oct. 11, 1965	388.55
Nov. 5, 1965	390.15
Dec. 7, 1965	391.28
Jan. 10, 1966	391.27
Feb. 10, 1966	391.94
Mar. 10, 1966	392.54
Apr. 18, 1966	393.47
Apr. 28, 1966	391.00
May 3, 1966	391.59
June 7, 1966	391.71
July 25, 1966	389.85
Aug. 11, 1966	390.97
Sept. 12, 1966	386.88
Oct. 6, 1966	387.92
Nov. 3, 1966	388.25
Dec. 2, 1966	389.45
Jan. 16, 1967	390.68
Feb. 27, 1967	392.47
Mar. 20, 1967	391.90
Apr. 3, 1967	393.80
May 2, 1967	394.42
June 13, 1967	394.05
July 24, 1967	394.87
Aug. 10, 1967	394.42
Sept. 7, 1967	393.08
Sept. 20, 1967	389.50
Oct. 5, 1967	389.95
Nov. 6, 1967	389.05
Dec. 8, 1967	391.10
Jan. 18, 1968	392.27
Jan. 24, 1968	392.40
Feb. 3, 1968	392.60
Feb. 16, 1968	393.42
Mar. 7, 1968	393.30
Apr. 5, 1968	394.13
Apr. 19, 1968	392.05
May 3, 1968	390.61
May 16, 1968	389.72
June 17, 1968	391.50
June 20, 1968	390.51
July 13, 1968	386.00
Aug. 5, 1968	383.20
Aug. 16, 1968	382.76
Aug. 24, 1968	383.56
Sept. 9, 1968	381.45
Oct. 3, 1968	377.22
Oct. 6, 1968	370.31
Oct. 25, 1968	368.77
Dec. 5, 1968	366.65
Jan. 7, 1969	363.65
Jan. 30, 1969	362.12
Feb. 28, 1969	360.52
Mar. 4, 1969	359.92
Apr. 9, 1969	357.44
May 5, 1969	354.44
June 3, 1969	352.34
July 7, 1969	351.44
Aug. 19, 1969	349.35
Sept. 16, 1969	347.00
Oct. 7, 1969	346.25
Nov. 5, 1969	340.10
Dec. 4, 1969	340.65
Jan. 6, 1970	341.35
Feb. 17, 1970	339.60
Feb. 25, 1970	339.95
Mar. 13, 1970	340.60
Apr. 8, 1970	341.45
Well YR-71-31-301	
Owner: Homer Holman	
Sept. 9, 1965	320.0
Nov. 10, 1965	319.42
Nov. 15, 1965	319.56
Nov. 20, 1965	319.66
Nov. 25, 1965	319.80
Nov. 30, 1965	320.02
Dec. 5, 1965	320.17
Dec. 10, 1965	320.28
Dec. 15, 1965	320.35
Dec. 20, 1965	320.60
Dec. 25, 1965	320.75
Dec. 31, 1965	320.70
Jan. 5, 1966	320.70
Jan. 10, 1966	320.95
Jan. 15, 1966	320.80
Jan. 20, 1966	321.06
Jan. 25, 1966	321.20
Jan. 31, 1966	321.07
Feb. 5, 1966	321.35
Feb. 10, 1966	321.54
Feb. 15, 1966	321.57
Feb. 20, 1966	321.70
Feb. 25, 1966	321.67
Feb. 28, 1966	321.94
Mar. 5, 1966	322.12
Mar. 10, 1966	321.97
Mar. 15, 1966	322.05
Mar. 20, 1966	322.15
Mar. 25, 1966	322.30
Mar. 31, 1966	322.37
Apr. 6, 1966	322.57
Apr. 10, 1966	322.44
Apr. 15, 1966	322.75

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-31-301—Cont'd.	
Apr. 20, 1966	322.70
Apr. 25, 1966	320.77
Apr. 30, 1966	320.67
May 5, 1966	320.64
May 10, 1966	320.67
May 15, 1966	320.78
May 20, 1966	320.95
May 25, 1966	321.00
May 31, 1966	320.97
June 5, 1966	320.91
June 10, 1966	321.03
June 15, 1966	319.34
June 20, 1966	317.91
June 25, 1966	317.88
June 30, 1966	317.93
July 5, 1966	318.09
July 10, 1966	318.33
July 15, 1966	318.51
July 20, 1966	318.71
July 25, 1966	319.01
July 31, 1966	319.33
Aug. 5, 1966	319.54
Aug. 10, 1966	319.53
Aug. 15, 1966	318.98
Aug. 20, 1966	318.51
Aug. 25, 1966	318.59
Aug. 31, 1966	318.56
Sept. 5, 1966	318.64
Sept. 10, 1966	317.36
Sept. 15, 1966	316.08
Sept. 20, 1966	316.94
Sept. 25, 1966	315.86
Sept. 30, 1966	316.13
Oct. 5, 1966	316.51
Oct. 10, 1966	316.31
Oct. 15, 1966	316.65
Oct. 20, 1966	316.74
Oct. 25, 1966	317.05
Oct. 31, 1966	317.13
Nov. 5, 1966	317.55
Nov. 10, 1966	317.83
Nov. 16, 1966	318.08
Nov. 20, 1966	318.30
Nov. 25, 1966	318.51
Nov. 30, 1966	318.83
Dec. 5, 1966	318.92
Dec. 10, 1966	319.44
Dec. 15, 1966	319.36
Dec. 20, 1966	319.49
Dec. 25, 1966	319.74
Dec. 31, 1966	319.96
Jan. 5, 1967	320.13
Jan. 10, 1967	320.45
Jan. 15, 1967	320.51
Jan. 20, 1967	320.61
Jan. 25, 1967	320.70
Jan. 31, 1967	320.88
Feb. 5, 1967	321.13
Feb. 10, 1967	321.23
Feb. 15, 1967	321.98
Feb. 20, 1967	321.81
Feb. 25, 1967	321.91
Feb. 28, 1967	321.99
Mar. 5, 1967	321.67
Mar. 10, 1967	321.98
Mar. 15, 1967	322.26
Mar. 20, 1967	322.16
Mar. 25, 1967	322.15
Mar. 31, 1967	322.23
Apr. 5, 1967	322.25
Apr. 10, 1967	322.36
Apr. 15, 1967	322.44
Apr. 20, 1967	322.46
Apr. 25, 1967	322.58
Apr. 30, 1967	322.71
May 5, 1967	322.84
May 10, 1967	322.90
May 15, 1967	323.21
May 20, 1967	323.07
May 25, 1967	323.07
May 31, 1967	323.11
June 5, 1967	323.24
June 10, 1967	323.21
June 15, 1967	323.35
June 20, 1967	323.39
June 25, 1967	323.44
June 30, 1967	323.43
July 5, 1967	323.42
July 10, 1967	323.48
July 15, 1967	323.53
July 20, 1967	323.73
July 25, 1967	323.11
July 31, 1967	323.12
Aug. 5, 1967	323.22
Aug. 10, 1967	323.26
Aug. 15, 1967	323.21
Aug. 20, 1967	323.26
Aug. 25, 1967	323.31
Aug. 31, 1967	323.39
Sept. 5, 1967	321.86
Sept. 10, 1967	321.61
Sept. 15, 1967	321.71
Sept. 20, 1967	319.51
Sept. 25, 1967	319.36
Sept. 30, 1967	319.44
Oct. 5, 1967	319.55
Oct. 10, 1967	319.74
Oct. 15, 1967	316.58
Oct. 20, 1967	316.76
Oct. 25, 1967	316.96
Oct. 31, 1967	316.96

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-31-301—Cont'd.	
Nov. 5, 1967	317.25
Nov. 10, 1967	317.17
Nov. 15, 1967	317.55
Nov. 20, 1967	317.80
Nov. 25, 1967	318.16
Nov. 30, 1967	318.48
Dec. 5, 1967	318.70
Dec. 10, 1967	319.11
Dec. 15, 1967	319.49
Dec. 20, 1967	319.66
Dec. 25, 1967	319.83
Dec. 31, 1967	320.21
Jan. 5, 1968	320.41
Jan. 10, 1968	320.66
Jan. 15, 1968	320.76
Jan. 20, 1968	321.01
Jan. 25, 1968	321.05
Jan. 31, 1968	321.37
Feb. 5, 1968	321.71
Feb. 10, 1968	321.65
Feb. 15, 1968	321.97
Feb. 20, 1968	321.81
Feb. 25, 1968	321.92
Feb. 28, 1968	322.06
Mar. 5, 1968	321.96
Mar. 10, 1968	322.16
Mar. 15, 1968	322.44
Mar. 20, 1968	322.34
Mar. 25, 1968	322.04
Mar. 31, 1968	322.31
Apr. 5, 1968	322.31
Apr. 10, 1968	322.46
Apr. 15, 1968	322.02
Apr. 20, 1968	320.51
Apr. 25, 1968	319.19
Apr. 30, 1968	319.41
May 5, 1968	319.56
Well YR-71-31-301—Cont'd.	
May 10, 1968	319.66
May 15, 1968	318.66
May 20, 1968	318.81
May 25, 1968	318.89
May 31, 1968	319.17
June 5, 1968	319.37
June 10, 1968	319.66
June 15, 1968	319.88
June 20, 1968	319.05
June 25, 1968	319.16
June 30, 1968	319.41
July 5, 1968	316.11
July 10, 1968	315.56
July 15, 1968	314.96
July 20, 1968	314.41
July 25, 1968	313.96
July 31, 1968	313.37
Aug. 5, 1968	312.95
Aug. 10, 1968	312.54
Aug. 15, 1968	312.13
Aug. 20, 1968	311.69
Aug. 25, 1968	311.04
Aug. 31, 1968	310.16
Sept. 5, 1968	309.58
Sept. 10, 1968	308.85
Sept. 15, 1968	307.93
Sept. 20, 1968	307.16
Sept. 25, 1968	306.21
Sept. 30, 1968	304.96
Oct. 5, 1968	303.07
Oct. 10, 1968	302.11
Oct. 15, 1968	300.82
Oct. 20, 1968	299.92
Oct. 25, 1968	298.96
Oct. 31, 1968	297.82
Nov. 5, 1968	296.96
Nov. 10, 1968	296.49
Well YR-71-31-301—Cont'd.	
Nov. 15, 1968	295.49
Nov. 20, 1968	294.91
Nov. 25, 1968	294.16
Nov. 30, 1968	293.56
Dec. 5, 1968	293.01
Dec. 10, 1968	292.49
Dec. 15, 1968	291.99
Dec. 20, 1968	291.41
Dec. 25, 1968	290.96
Dec. 31, 1968	290.98
Jan. 5, 1969	290.16
Jan. 10, 1969	289.82
Jan. 15, 1969	289.33
Jan. 20, 1969	289.01
Jan. 25, 1969	288.57
Jan. 31, 1969	288.11
Feb. 5, 1969	287.79
Feb. 10, 1969	287.43
Feb. 15, 1969	287.10
Feb. 20, 1969	286.66
Feb. 25, 1969	286.33
Feb. 28, 1969	—
Mar. 5, 1969	285.58
Mar. 10, 1969	285.43
Mar. 15, 1969	285.10
Mar. 20, 1969	284.56
Mar. 25, 1969	284.36
Mar. 31, 1969	283.83
Apr. 5, 1969	283.48
Apr. 10, 1969	283.00
Apr. 15, 1969	282.41
Apr. 20, 1969	281.93
Apr. 25, 1969	281.27
Apr. 30, 1969	280.99
May 5, 1969	280.25
May 10, 1969	279.71
May 15, 1969	279.43

Table 6.–Water Levels in Wells–Continued

DATE	WATER LEVEL
Well YR-71-31-301–Cont'd.	
May 20, 1969	279.21
May 25, 1969	278.89
May 31, 1969	278.44
June 5, 1969	278.30
June 10, 1969	277.96
June 15, 1969	277.83
June 20, 1969	277.51
June 25, 1969	277.28
June 30, 1969	277.11
July 5, 1969	276.80
July 10, 1969	276.56
July 15, 1969	276.40
July 20, 1969	276.20
July 25, 1969	276.02
July 31, 1969	275.72
Aug. 5, 1969	275.46
Aug. 10, 1969	275.25
Aug. 15, 1969	275.01
Aug. 20, 1969	274.87
Aug. 25, 1969	274.66
Aug. 31, 1969	274.26
Sept. 5, 1969	274.05
Sept. 10, 1969	273.95
Sept. 15, 1969	272.61
Sept. 20, 1969	272.86
Sept. 25, 1969	272.76
Sept. 30, 1969	272.56
Oct. 5, 1969	272.17
Oct. 10, 1969	271.63
Oct. 15, 1969	269.01
Oct. 20, 1969	269.24
Oct. 25, 1969	269.42
Oct. 31, 1969	267.28
Nov. 5, 1969	267.68
Nov. 10, 1969	267.82
Nov. 15, 1969	268.06
Nov. 20, 1969	—
Nov. 25, 1969	—
Nov. 30, 1969	—
Dec. 5, 1969	—
Dec. 10, 1969	266.85
Well YR-71-31-401	
Owner: Mrs. C. G. Fay	
Dec. 17, 1964	210.4
Nov. 10, 1965	214.49
Nov. 15, 1965	214.53
Nov. 20, 1965	214.58
Nov. 25, 1965	214.62
Nov. 30, 1965	214.75
Dec. 5, 1965	214.74
Dec. 10, 1965	214.73
Dec. 15, 1965	214.83
Dec. 20, 1965	214.90
Dec. 25, 1965	215.05
Dec. 31 1965	214.98
Jan. 5, 1966	214.80
Jan. 10, 1966	214.88
Jan. 15, 1966	214.79
Jan. 20, 1966	214.88
Jan. 25, 1966	214.98
Jan. 31, 1966	215.00
Feb. 5, 1966	215.25
Feb. 10, 1966	215.32
Feb. 15, 1966	215.28
Feb. 20, 1966	215.33
Feb. 25, 1966	215.12
Feb. 28, 1966	215.37
Mar. 5, 1966	215.48
Mar. 10, 1966	215.40
Mar. 15, 1966	215.48
Mar. 20, 1966	215.56
Mar. 25, 1966	215.63
Mar. 31, 1966	215.18
Apr. 5, 1966	215.32
Apr. 10, 1966	215.38
Apr. 15, 1966	215.08
Apr. 20, 1966	215.08
Apr. 25, 1966	211.58
Apr. 30, 1966	212.58
May 5, 1966	213.13
May 10, 1966	213.58
May 15, 1966	214.00
May 20, 1966	214.23
May 25, 1966	209.33
May 31, 1966	210.83
June 5, 1966	212.17
June 10, 1966	212.91
June 15, 1966	209.33
June 20, 1966	210.93
June 25, 1966	211.64
June 30, 1966	212.17
July 5, 1966	212.42
July 10, 1966	212.77
July 15, 1966	213.02
July 20, 1966	212.46
July 25, 1966	213.80
July 31, 1966	214.14
Aug. 5, 1966	213.88
Aug. 10, 1966	213.89
Aug. 15, 1966	208.13
Aug. 20, 1966	210.88
Aug. 25, 1966	211.77
Aug. 31, 1966	211.16
Sept. 5, 1966	210.56
Sept. 10, 1966	196.00
Sept. 15, 1966	205.58
Sept. 20, 1966	206.03
Sept. 25, 1966	207.10
Sept. 30, 1966	208.33
Oct. 5, 1966	199.38
Oct. 10, 1966	207.15

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-31-401—Cont'd.	
Oct. 15, 1965	208.38
Oct. 20, 1966	209.23
Oct. 25, 1966	210.00
Oct. 31, 1966	210.53
Nov. 5, 1966	211.05
Nov. 10, 1966	211.48
Nov. 15, 1966	211.82
Nov. 20, 1966	212.08
Nov. 25, 1966	212.30
Nov. 30, 1966	212.60
Dec. 5, 1966	212.69
Dec. 10, 1966	213.05
Dec. 15, 1966	213.08
Dec. 20, 1966	213.16
Dec. 25, 1966	213.33
Dec. 31, 1966	213.46
Jan. 5, 1967	213.57
Jan. 10, 1967	213.85
Jan. 15, 1967	213.81
Jan. 20, 1967	213.88
Jan. 25, 1967	213.99
Jan. 31, 1967	214.13
Feb. 5, 1967	214.13
Feb. 10, 1967	214.08
Feb. 15, 1967	214.48
Feb. 20, 1967	214.61
Feb. 25, 1967	214.56
Feb. 28, 1967	214.58
Mar. 5, 1967	214.51
Mar. 10, 1967	214.70
Mar. 15, 1967	214.88
Mar. 20, 1967	214.86
Mar. 25, 1967	214.83
Mar. 31, 1967	214.53
Apr. 5, 1967	214.63
Apr. 10, 1967	214.79
Apr. 15, 1967	214.91
Apr. 20, 1967	214.93
Apr. 25, 1967	214.98
Apr. 30, 1967	214.98
May 5, 1967	215.10
May 10, 1967	215.15
May 15, 1967	215.35
May 20, 1967	216.28
May 25, 1967	216.36
May 31, 1967	215.35
June 6, 1967	215.37
June 10, 1967	215.21
June 15, 1967	215.28
June 20, 1967	215.21
June 25, 1967	215.22
June 30, 1967	215.00
July 5, 1967	214.40
July 10, 1967	214.85
July 15, 1967	213.28
July 20, 1967	211.20
July 25, 1967	213.96
July 31, 1967	214.66
Aug. 5, 1967	214.90
Aug. 10, 1967	214.96
Aug. 15, 1967	214.35
Aug. 20, 1967	214.63
Aug. 25, 1967	214.96
Aug. 31, 1967	215.19
Sept. 5, 1967	210.68
Sept. 10, 1967	212.66
Sept. 15, 1967	213.19
Sept. 20, 1967	211.38
Sept. 25, 1967	212.21
Sept. 30, 1967	212.53
Oct. 5, 1967	213.08
Oct. 10, 1967	213.43
Oct. 15, 1967	202.08
Oct. 20, 1967	210.62
Oct. 25, 1967	211.78
Oct. 31, 1967	210.58
Nov. 5, 1967	211.90
Nov. 10, 1967	212.38
Nov. 15, 1967	212.78
Nov. 20, 1967	213.06
Nov. 25, 1967	213.33
Nov. 30, 1967	213.53
Dec. 5, 1967	213.61
Dec. 10, 1967	213.78
Dec. 15, 1967	213.53
Dec. 20, 1967	213.80
Dec. 25, 1967	214.00
Dec. 31, 1967	214.20
Jan. 5, 1968	214.29
Jan. 10, 1968	214.18
Jan. 15, 1968	214.28
Jan. 20, 1968	214.41
Jan. 25, 1968	214.47
Jan. 31, 1968	214.58
Feb. 5, 1968	214.79
Feb. 10, 1968	214.78
Feb. 15, 1968	214.84
Feb. 20, 1968	213.73
Feb. 25, 1968	214.35
Feb. 28, 1968	214.68
Mar. 5, 1968	214.77
Mar. 10, 1968	214.90
Mar. 15, 1968	214.90
Mar. 20, 1968	212.93
Mar. 25, 1968	214.65
Mar. 31, 1968	214.98
Apr. 5, 1968	214.93
Apr. 10, 1968	214.15
Apr. 15, 1968	213.68
Apr. 20, 1968	210.18
Apr. 25, 1968	210.67

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-31-401—Cont'd.	
Apr. 30, 1968	211.67
May 5, 1968	212.23
May 10, 1968	212.47
May 15, 1968	211.94
May 20, 1968	212.42
May 25, 1968	212.62
May 31, 1968	212.88
June 5, 1968	213.12
June 10, 1968	213.02
June 15, 1968	212.99
June 20, 1968	211.19
June 25, 1968	211.90
June 30, 1968	212.41
July 5, 1968	207 65
July 10, 1968	207.98
July 15, 1968	205.88
July 20, 1968	203.93
July 25, 1968	202.09
July 31, 1968	199.86
Aug. 5, 1968	198.28
Aug. 10, 1968	196.88
Aug. 15, 1968	195.78
Aug. 20, 1968	193.63
Aug. 25, 1968	191.63
Aug. 31, 1968	189.78
Sept. 5, 1968	188.15
Sept. 10, 1968	186.33
Sept. 15, 1968	183.94
Sept. 20, 1968	181.54
Sept. 25, 1968	178.03
Sept. 30, 1968	173.20
Oct. 5, 1968	169.25
Oct. 10, 1968	166.03
Oct. 15, 1968	163.24
Oct. 20, 1968	161.18
Oct. 25, 1968	159.28
Oct. 31, 1968	157.48
Nov. 5, 1968	166.12
Nov. 10, 1968	166.18
Nov. 15, 1968	163.99
Nov. 20, 1968	153.22
Nov. 25, 1968	152.38
Nov. 30, 1968	147.63
Dec. 5, 1968	146.25
Dec. 10, 1968	146.18
Dec. 15, 1968	148.65
Dec. 20, 1968	148.75
Dec. 25, 1968	148.58
Dec. 31, 1968	148.54
Jan. 5, 1969	148.06
Jan. 10, 1969	147.68
Jan. 15, 1969	143.98
Jan. 20, 1969	142.23
Jan. 25, 1969	141.53
Jan. 31, 1969	140.80
Feb. 5, 1969	140.18
Feb. 10, 1969	139.60
Feb. 15, 1969	138.82
Feb. 20, 1969	138.06
Feb. 25, 1969	137.33
Feb. 28, 1969	136.88
Mar. 5, 1969	136.05
Mar. 10, 1969	135.51
Mar. 15, 1969	134.93
Mar. 20, 1969	134.39
Mar. 25, 1969	133.87
Mar. 31, 1969	133.09
Apr. 5, 1969	132.58
Apr. 10, 1969	129.08
Apr. 15, 1969	129.93
Apr. 20, 1969	129.18
Apr. 26, 1969	128.40
Apr. 30, 1969	128.02
May 5, 1969	127.43
May 10, 1969	126.78
May 15, 1969	126.30
May 20, 1969	125.90
May 25, 1969	126.58
May 31, 1969	125.22
June 5, 1969	124.78
June 10, 1969	124.16
June 15, 1969	123.84
June 20, 1969	123.38
June 25, 1969	123.08
June 30, 1969	123.07
July 5, 1969	123.04
July 10, 1969	123.05
July 15, 1969	122.68
July 20, 1969	122.39
July 25, 1969	121.88
July 31, 1969	—
Aug. 5, 1969	—
Aug. 10, 1969	—
Aug. 15, 1969	—
Aug. 20, 1969	121.75
Aug. 25, 1969	121.78
Aug. 31, 1969	121.47
Sept. 5, 1969	121.39
Sept. 10, 1969	121.36
Sept. 15, 1969	120.53
Sept. 20, 1969	120.53
Sept. 25, 1969	120.16
Sept. 30, 1969	119.93
Oct. 5, 1969	119.24
Oct. 10, 1969	118.83
Oct. 15, 1969	117.73
Oct. 20, 1969	117.55
Oct. 25, 1969	177.35
Oct. 31, 1969	116.68
Nov. 5, 1969	116.38
Nov. 10, 1969	116.16

Table 6.--Water Levels in Wells--Continued

DATE	WATER LEVEL
Well YR-71-31-401--Cont'd.	
Nov. 15, 1969	115.98
Nov. 20, 1969	115.90
Nov. 25, 1969	115.73
Nov. 30, 1969	115.22
Dec. 5, 1969	114.95
Dec. 10, 1969	114.90
Dec. 15, 1969	114.74
Dec. 20, 1969	114.56
Dec. 25, 1969	114.48
Dec. 31, 1969	114.35
Well YR-71-31-901	
Owner: W. T. O. Holman Estate	
Mar. 9, 1950	311.3
Aug. 16, 1951	317.7
Nov. 3, 1954	312.7
July 24, 1964	318.0
June 5, 1968	316.24
June 10, 1968	315.89
June 15, 1968	316.59
June 20, 1968	312.64
June 25, 1968	314.49
June 30, 1968	315.44
July 5, 1968	304.54
July 10, 1968	299.49
July 15, 1968	290.49
July 20, 1968	286.54
July 25, 1968	283.74
July 31, 1968	280.03
Aug. 5, 1968	278.19
Aug. 10, 1968	276.54
Aug. 15, 1968	275.34
Aug. 20, 1968	271.49
Aug. 25, 1968	267.94
Aug. 31, 1968	265.41
Sept. 5, 1968	263.41
Sept. 10, 1968	261.31
Sept. 15, 1968	258.44
Sept. 20, 1968	255.26
Sept. 25, 1968	--
Sept. 30, 1968	--
Oct. 6, 1968	--
Oct. 10, 1968	--
Oct. 15, 1968	--
Oct. 20, 1968	--
Oct. 25, 1968	231.84
Oct. 31, 1968	230.89
Nov. 5, 1968	230.13
Nov. 10, 1968	229.69
Nov. 15, 1968	228.99
Nov. 20, 1968	228.61
Nov. 25, 1968	228.14
Nov. 30, 1968	227.54
Dec. 5, 1968	227.96
Dec. 10, 1968	227.79
Dec. 15, 1968	226.69
Dec. 20, 1968	226.64
Dec. 25, 1968	226.66
Dec. 31, 1968	226.94
Jan. 5, 1969	226.44
Jan. 10, 1969	226.03
Jan. 15, 1969	225.41
Jan. 20, 1969	224.83
Jan. 25, 1969	224.31
Jan. 31, 1969	223.69
Feb. 5, 1969	223.16
Feb. 10, 1969	222.78
Feb. 15, 1969	222.03
Feb. 20, 1969	221.49
Feb. 25, 1969	220.85
Feb. 28, 1969	220.49
Mar. 5, 1969	219.76
Mar. 10, 1969	219.27
Mar. 15, 1969	218.79
Mar. 20, 1969	218.36
Mar. 25, 1969	217.96
Mar. 31, 1969	217.44
Apr. 5, 1969	216.86
Apr. 10, 1969	216.43
Apr. 15, 1969	214.15
Apr. 20, 1969	213.64
Apr. 25, 1969	213.13
Apr. 30, 1969	212.89
May 5, 1969	210.99
May 10, 1969	211.24
May 15, 1969	211.17
May 20, 1969	210.94
May 25, 1969	210.79
May 31, 1969	210.59
June 5, 1969	210.29
June 10, 1969	209.83
June 15, 1969	209.66
June 20, 1969	209.33
June 25, 1969	209.06
June 30, 1969	209.07
July 5, 1969	209.05
July 10, 1969	209.09
July 15, 1969	208.80
July 20, 1969	208.54
July 25, 1969	208.25
July 31, 1969	207.93
Aug. 5, 1969	207.80
Aug. 10, 1969	207.80
Aug. 15, 1969	207.78
Aug. 20, 1969	207.83
Aug. 25, 1969	207.83
Aug. 31, 1969	206.44
Sept. 5, 1969	206.98
Sept. 10, 1969	207.13
Sept. 15, 1969	204.49
Sept. 20, 1969	205.84
Sept. 25, 1969	205.89

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-31-901—Cont'd.	
Sept. 30, 1969	205.79
Oct. 5, 1969	204.64
Oct. 10, 1969	204.61
Oct. 15, 1969	200.24
Oct. 20, 1969	201.99
Oct. 26, 1969	202.44
Oct. 31, 1969	199.79
Nov. 5, 1969	200.81
Nov. 10, 1969	201.19
Nov. 15, 1969	201.34
Nov. 20, 1969	201.44
Nov. 25, 1969	201.29
Nov. 30, 1969	197.79
Dec. 5, 1969	199.39
Dec. 10, 1969	199.64
Dec. 15, 1969	199.96
Dec. 20, 1969	200.01
Dec. 25, 1969	200.06
Dec. 31, 1969	200.03
Well YR-71-32-302	
Owner: J. B. Sellers	
June 30, 1964	263.8
July 22, 1964	263.5
Aug. 5, 1964	263.8
Sept. 4, 1964	263.51
Sept. 30, 1964	254.14
Nov. 5, 1964	255.07
Dec. 4, 1964	256.27
Apr. 8, 1965	259.9
May 7, 1965	260.47
May 20, 1965	260.43
June 2, 1965	259.63
July 8, 1965	258.16
Aug. 13, 1965	259.20
Sept. 9, 1965	259.83
Oct. 11, 1965	260.40
Nov. 3, 1965	260.71
Dec. 6, 1965	261.15
Jan. 18, 1966	261.40
Feb. 10, 1966	262.04
Apr. 18, 1966	262.75
May 6, 1966	261.27
June 7, 1966	261.44
July 18, 1966	260.50
Aug. 12, 1966	261.01
Sept. 23, 1966	260.95
Oct. 6, 1966	261.09
Nov. 7, 1966	261.29
Dec. 2, 1966	261.68
Jan. 16, 1967	262.38
Apr. 27, 1967	263.35
May 11, 1967	263.25
June 9, 1967	263.48
July 18, 1967	263.75
July 27, 1967	263.66
Aug. 10, 1967	263.68
Sept. 7, 1967	263.42
Sept. 28, 1967	259.40
Oct. 2, 1967	259.65
Nov. 30, 1967	260.49
Dec. 18, 1967	260.94
Jan. 18, 1968	261.78
Feb. 9, 1968	262.24
Mar. 8, 1968	262.41
Apr. 5, 1968	262.32
May 6, 1968	259.71
June 4, 1968	257.76
June 5, 1968	257.86
June 10, 1968	258.24
June 15, 1968	258.52
June 20, 1968	258.54
June 25, 1968	258.62
June 30, 1968	258.40
July 5, 1968	259.95
July 10, 1968	255.32
July 15, 1968	255.85
July 20, 1968	256.32
July 25, 1968	256.69
July 31, 1968	257.03
Aug. 5, 1968	257.25
Aug. 10, 1968	257.42
Aug. 15, 1968	257.57
Aug. 20, 1968	257.72
Aug. 25, 1968	257.82
Aug. 31, 1968	257.85
Sept. 5, 1968	257.90
Sept. 10, 1968	257.85
Sept. 15, 1968	257.70
Sept. 20, 1968	257.63
Sept. 25, 1968	257.46
Sept. 30, 1968	257.06
Oct. 5, 1968	255.95
Oct. 10, 1968	255.30
Oct. 15, 1968	254.60
Oct. 20, 1968	254.04
Oct. 25, 1968	253.43
Oct. 31, 1968	252.66
Nov. 5, 1968	252.06
Nov. 10, 1968	251.75
Nov. 15, 1968	251.09
Nov. 20, 1968	250.67
Nov. 25, 1968	250.22
Nov. 30, 1968	249.85
Dec. 5, 1968	249.45
Dec. 10, 1968	249.07
Dec. 15, 1968	248.66
Dec. 20, 1968	248.30
Dec. 25, 1968	248.05
Dec. 31, 1968	248.10
Jan. 5, 1969	247.67
Jan. 10, 1969	247.52

Table 6.–Water Levels in Wells–Continued

DATE	WATER LEVEL
Well YR-71-32-302–Cont'd.	
Jan. 15, 1969	247.20
Jan. 20, 1969	246.92
Jan. 25, 1969	246.69
Jan. 31, 1969	246.30
Feb. 5, 1969	246.04
Feb. 10, 1969	245.75
Feb. 15, 1969	245.45
Feb. 20, 1969	245.09
Feb. 25, 1969	244.73
Feb. 28, 1969	244.60
Mar. 5, 1969	244.14
Mar. 10, 1969	243.95
Mar. 15, 1969	243.55
Mar. 20, 1969	243.16
Mar. 25, 1969	242.95
Mar. 31, 1969	242.50
Apr. 5, 1969	242.08
Apr. 10, 1969	241.74
Apr. 15, 1969	240.91
Apr. 20, 1969	240.61
Apr. 25, 1969	240.04
Apr. 30, 1969	239.70
May 5, 1969	239.12
May 10, 1969	238.75
May 15, 1969	238.40
May 20, 1969	238.09
May 25, 1969	237.76
May 31, 1969	237.37
June 5, 1969	237.16
June 10, 1969	236.79
June 15, 1969	236.60
June 20, 1969	236.26
June 25, 1969	235.98
June 30, 1969	235.82
July 5, 1969	235.54
July 10, 1969	235.39
July 15, 1969	235.19
July 20, 1969	234.97
July 25, 1969	234.74
July 31, 1969	234.49
Aug. 5, 1969	234.26
Aug. 10, 1969	234.07
Aug. 15, 1969	233.86
Aug. 20, 1969	233.77
Aug. 25, 1969	233.61
Aug. 31, 1969	233.41
Sept. 5, 1969	233.22
Sept. 10, 1969	233.11
Sept. 15, 1969	232.84
Sept. 20, 1969	232.62
Sept. 25, 1969	232.42
Sept. 30, 1969	232.17
Oct. 5, 1969	231.87
Oct. 10, 1969	231.42
Oct. 15, 1969	229.57
Oct. 20, 1969	229.46
Oct. 25, 1969	229.59
Oct. 31, 1969	226.65
Nov. 5, 1969	227.20
Nov. 10, 1969	227.60
Nov. 15, 1969	227.72
Nov. 20, 1969	227.82
Nov. 25, 1969	227.77
Nov. 30, 1969	225.57
Dec. 5, 1969	224.93
Well YR-71-32-401	
Owner: W. T. O. Holman Estate	
July 23, 1964	236.15
Dec. 7, 1964	226.2
July 8, 1965	230.9
Dec. 6, 1965	234.7
Feb. 1, 1966	234.92
Apr. 18, 1966	235.8
Dec. 2, 1966	233.6
June 7, 1967	237.0
Jan. 30, 1968	235.05
June 18, 1968	231.90
Dec. 5, 1968	200.38
Apr. 3, 1969	196.8
June 5, 1969	193.75
July 16, 1969	195.0
Dec. 9, 1969	183.69
Well YR-71-40-304	
Owner: Amistad Land Co.	
June 30, 1964	247.10
Sept. 8, 1964	246.95
Oct. 5, 1964	229.20
Nov. 5, 1964	238.90
Dec. 8, 1964	241.40
Jan. 12, 1965	241.80
Feb. 5, 1965	242.20
Mar. 17, 1965	243.00
Apr. 21, 1965	243.45
May 14, 1965	241.40
June 21, 1965	241.10
July 26, 1965	241.05
Aug. 13, 1965	242.45
Sept. 15, 1965	243.65
Oct. 11, 1965	242.60
Nov. 2, 1965	242.95
Dec. 6, 1965	244.33
Jan. 24, 1966	244.30
Feb. 8, 1966	244.27
Mar. 14, 1966	244.85
Apr. 15, 1966	246.00
May 20, 1966	242.30
June 13, 1966	238.89
July 8, 1966	242.30
Aug. 17, 1966	242.55
Sept. 23, 1966	241.76
Oct. 6, 1966	241.35

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-40-304—Cont'd.	
Dec. 1, 1966	242.85
Jan. 14, 1967	242.72
Feb. 14, 1967	243.37
Mar. 16, 1967	243.55
Apr. 25, 1967	252.40
May 12, 1967	244.10
June 9, 1967	243.80
July 10, 1967	244.67
Aug. 1, 1967	244.45
Sept. 8, 1967	240.90
Oct. 10, 1967	241.80
Nov. 3, 1967	242.53
Dec. 11, 1967	243.75
Jan. 18, 1968	244.48
Jan. 29, 1968	244.38
Feb. 9, 1968	245.15
Feb. 26, 1968	244.05
Mar. 11, 1968	244.60
Apr. 6, 1968	244.43
Apr. 20, 1968	231.77
May 7, 1968	242.57
May 13, 1968	240.45
May 28, 1968	242.24
June 4, 1968	241.45
June 7, 1968	241.67
June 17, 1968	242.15
June 24, 1968	241.38
July 1, 1968	242.17
July 5, 1968	234.40
July 8, 1968	232.10
July 11, 1968	227.50
July 25, 1968	217.30
Aug. 8, 1968	211.02
Aug. 15, 1968	210.18
Aug. 19, 1968	208.10
Aug. 26, 1968	203.10
Aug. 30, 1968	202.91
Sept. 6, 1968	200.10
Sept. 13, 1968	195.35
Sept. 20, 1968	190.75
Sept. 30, 1968	179.07
Oct. 7, 1968	175.38
Oct. 21, 1968	171.80
Nov. 1, 1968	171.20
Nov. 22, 1968	169.61
Dec. 2, 1968	169.30
Dec. 17, 1968	168.70
Jan. 2, 1969	169.22
Jan. 13, 1969	168.65
Jan. 27, 1969	166.40
Feb. 11, 1969	165.10
Feb. 24, 1969	162.85
Mar. 10, 1969	161.20
Mar. 25, 1969	160.50
Apr. 10, 1969	158.84
Apr. 18, 1969	155.33
May 16, 1969	153.80
June 4, 1969	153.69
July 7, 1969	152.98
Aug. 13, 1969	152.40
Sept. 9, 1969	151.75
Oct. 3, 1969	150.75
Nov. 4, 1969	145.92
Dec. 5, 1969	143.57
Jan. 22, 1970	144.80
Feb. 9, 1970	145.05
Feb. 27, 1970	145.90
Mar. 10, 1970	147.75
Well YR-71-40-602	
Owner: U.S. International Boundary and Water Commission	
June 13, 1966	204.13
June 20, 1966	206.52
June 25, 1966	207.44
June 30, 1966	207.67
July 5, 1966	207.78
July 10, 1966	208.47
July 15, 1966	208.70
July 20, 1966	209.05
July 25, 1966	208.82
July 31, 1966	209.16
Aug. 5, 1966	208.13
Aug. 10, 1966	208.70
Aug. 15, 1966	206.98
Aug. 20, 1966	208.13
Aug. 25, 1966	208.82
Aug. 31, 1966	208.59
Sept. 5, 1966	207.67
Sept. 10, 1966	206.06
Sept. 15, 1966	206.29
Sept. 20, 1966	205.70
Sept. 25, 1966	206.75
Sept. 30, 1966	207.67
Oct. 5, 1966	207.21
Oct. 10, 1966	206.63
Oct. 15, 1966	207.67
Oct. 20, 1966	207.55
Oct. 25, 1966	207.78
Oct. 31, 1966	207.78
Nov. 5, 1966	208.47
Nov. 10, 1966	208.70
Nov. 15, 1966	208.70
Nov. 20, 1966	208.59
Nov. 25, 1966	208.93
Nov. 30, 1966	209.05
Dec. 5, 1966	208.70
Dec. 10, 1966	209.07
Dec. 15, 1966	209.05
Dec. 20, 1966	209.05
Dec. 25, 1966	208.82
Dec. 31, 1966	208.93

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Well YR-71-40-602—Cont'd.		Well YR-71-40-602—Cont'd.		Well YR-71-40-602—Cont'd.	
Jan. 5, 1967	209.16	July 10, 1967	210.78	Jan. 15, 1968	210.08
Jan. 10, 1967	209.61	July 15, 1967	210.90	Jan. 20, 1968	210.31
Jan. 15, 1967	209.39	July 20, 1967	210.90	Jan. 25, 1968	210.08
Jan. 20, 1967	209.39	July 25, 1967	210.20	Jan. 31, 1968	210.43
Jan. 25, 1967	209.39	July 31, 1967	210.67	Feb. 5, 1968	210.55
Jan. 31, 1967	209.51	Aug. 5, 1967	210.90	Feb. 10, 1968	210.55
Feb. 5, 1967	209.85	Aug. 10, 1967	210.90	Feb. 15, 1968	210.78
Feb. 10, 1967	209.74	Aug. 16, 1967	210.08	Feb. 20, 1968	209.51
Feb. 15, 1967	209.85	Aug. 20, 1967	210.43	Feb. 25, 1968	209.85
Feb. 20, 1967	209.97	Aug. 25, 1967	210.78	Feb. 28, 1968	210.08
Feb. 25, 1967	209.97	Aug. 31, 1967	210.90	Mar. 5, 1968	210.08
Feb. 28, 1967	209.85	Sept. 5, 1967	205.70	Mar. 10, 1968	210.31
Mar. 5, 1967	209.97	Sept. 10, 1967	208.13	Mar. 15, 1968	210.31
Mar. 10, 1967	210.20	Sept. 15, 1967	197.67	Mar. 20, 1968	207.55
Mar. 15, 1967	209.89	Sept. 20, 1967	199.83	Mar. 25, 1968	208.82
Mar. 20, 1967	210.31	Sept. 25, 1967	204.78	Mar. 31, 1968	209.62
Mar. 25, 1967	209.51	Sept. 30, 1967	206.29	Apr. 5, 1968	209.85
Mar. 31, 1967	210.08	Oct. 5, 1967	207.44	Apr. 10, 1968	209.97
Apr. 5, 1967	210.31	Oct. 10, 1967	208.01	Apr. 15, 1968	209.62
Apr. 10, 1967	210.31	Oct. 15, 1967	208.24	Apr. 20, 1968	199.74
Apr. 15, 1967	210.20	Oct. 20, 1967	208.47	Apr. 25, 1968	204.32
Apr. 20, 1967	209.97	Oct. 25, 1967	208.93	Apr. 30, 1968	205.94
Apr. 25, 1967	210.02	Oct. 31, 1967	208.47	May 5, 1968	206.52
Apr. 30, 1967	210.08	Nov. 5, 1967	208.82	May 10, 1968	206.98
May 5, 1967	210.31	Nov. 10, 1967	208.93	May 15, 1968	206.06
May 10, 1967	210.43	Nov. 15, 1967	209.05	May 20, 1968	206.63
May 15, 1967	210.67	Nov. 20, 1967	209.16	May 25, 1968	207.44
May 20, 1967	210.55	Nov. 25, 1967	209.28	May 31, 1968	207.55
May 25, 1067	210.55	Nov. 30, 1967	209.74	June 5, 1968	206.52
May 31, 1967	210.55	Dec. 5, 1967	209.51	June 10, 1968	206.29
June 5, 1967	210.55	Dec. 10, 1967	209.85	June 15, 1968	206.98
June 10, 1967	210.55	Dec. 15, 1967	210.08	June 20, 1968	205.82
June 15, 1967	210.78	Dec. 20, 1967	209.85	June 25, 1968	206.86
June 20, 1967	210.67	Dec. 25, 1967	210.08	June 30, 1968	207.09
June 25, 1967	210.90	Dec. 31, 1967	210.43	July 5, 1968	194.98
June 30, 1967	210.67	Jan. 5, 1968	210.20	July 10, 1968	186.60
July 5, 1967	210.55	Jan. 10, 1968	209.97	July 15, 1968	177.44

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-40-602—Cont'd.	
July 20, 1968	173.51
July 25, 1968	171.21
July 31, 1968	167.86
Aug. 5, 1968	165.67
Aug. 10, 1968	164.52
Aug. 15, 1968	163.71
Aug. 20, 1968	159.10
Aug. 25, 1968	155.51
Aug. 31, 1968	164.13
Sept. 5, 1968	151.36
Sept. 10, 1968	148.13
Sept. 15, 1968	143.98
Sept. 20, 1968	139.48
Sept. 25, 1968	132.33
Sept. 30, 1968	—
Oct. 5, 1968	122.28
Oct. 10, 1968	120.09
Oct. 15, 1968	119.74
Oct. 20, 1968	118.02
Oct. 25, 1968	117.33
Oct. 31, 1968	116.75
Nov. 5, 1968	116.40
Nov. 10, 1968	116.29
Nov. 15, 1968	115.83
Nov. 20, 1968	115.71
Nov. 25, 1968	115.25
Nov. 30, 1968	115.13
Dec. 5, 1968	114.56
Dec. 10, 1968	114.79
Dec. 15, 1968	114.90
Dec. 20, 1968	114.90
Dec. 25, 1968	115.13
Dec. 31, 1968	115.21
Jan. 5, 1969	115.13
Jan. 10, 1969	114.67
Jan. 15, 1969	114.21
Jan. 20, 1969	113.52
Jan. 25, 1969	113.06
Jan. 31, 1969	112.48
Feb. 5, 1969	112.02
Feb. 10, 1969	111.21
Feb. 15, 1969	—
Feb. 20, 1969	110.17
Feb. 25, 1969	109.60
Feb. 28, 1969	109.14
Mar. 5, 1969	108.56
Mar. 10, 1969	108.10
Mar. 15, 1969	107.98
Mar. 20, 1969	107.64
Mar. 25, 1969	107.17
Mar. 31, 1969	106.60
Apr. 5, 1969	106.02
Apr. 10, 1969	105.66
Apr. 15, 1969	102.91
Apr. 20, 1969	102.33
Apr. 25, 1969	102.21
Apr. 30, 1969	102.01
May 5, 1969	101.44
May 10, 1969	100.63
May 15, 1969	100.74
May 20, 1969	100.51
May 25, 1969	100.40
May 31, 1969	100.28
June 5, 1969	100.05
June 10, 1969	99.59
June 15, 1969	99.47
June 20, 1969	99.24
June 25, 1969	99.13
June 30, 1969	99.24
July 6, 1969	99.36
July 10, 1969	99.59
July 15, 1969	99.13
July 20, 1969	99.01
July 25, 1969	98.67
July 31, 1969	98.55
Aug. 5, 1969	98.55
Aug. 10, 1969	98.55
Aug. 15, 1969	98.67
Aug. 20, 1969	98.90
Aug. 25, 1969	98.90
Aug. 31, 1969	—
Sept. 5, 1969	—
Sept. 10, 1969	98.09
Sept. 15, 1969	97.97
Sept. 20, 1969	96.59
Sept. 25, 1969	96.82
Sept. 30, 1969	96.82
Oct. 5, 1969	93.47
Oct. 10, 1969	93.94
Oct. 15, 1969	92.21
Oct. 20, 1969	93.13
Oct. 25, 1969	93.59
Oct. 31, 1969	93.13
Nov. 5, 1969	93.36
Nov. 10, 1969	93.47
Nov. 15, 1969	93.47
Nov. 20, 1969	93.36
Nov. 25, 1969	93.59
Nov. 30, 1969	91.75
Dec. 5, 1969	91.63
Dec. 10, 1969	91.98
Dec. 15, 1969	92.09
Dec. 20, 1969	92.33
Dec. 25, 1969	92.33
Dec. 31, 1969	92.44
Well YR-71-40-901 (Georgetown water level)	
Owner: Mrs. E. Daughtrey	
Mar. 22, 1965	0.0
Nov. 20, 1965	4.13
Nov. 25, 1965	4.94

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
Nov. 30, 1965	5.22
Dec. 5, 1965	5.40
Dec. 10, 1965	5.33
Dec. 15, 1966	5.63
Dec. 20, 1965	6.63
Dec. 26, 1965	5.86
Dec. 31, 1965	5.86
Jan. 5, 1966	5.97
Jan. 10, 1966	6.20
Jan. 16, 1966	6.43
Jan. 20, 1966	6.32
Jan. 25, 1966	6.43
Jan. 31, 1966	6.43
Feb. 5, 1966	6.66
Feb. 10, 1966	6.56
Feb. 15, 1966	6.66
Feb. 20, 1966	6.78
Feb. 25, 1966	6.62
Feb. 28, 1966	5.85
Mar. 5, 1966	6.89
Mar. 10, 1966	6.56
Mar. 15, 1966	5.97
Mar. 20, 1966	5.85
Mar. 25, 1966	—
Mar. 31, 1966	—
Apr. 5, 1966	5.80
Apr. 10, 1966	—
Apr. 15, 1966	6.55
Apr. 20, 1966	4.24
Apr. 25, 1966	+ 1.07
Apr. 30, 1966	0.55
May 5, 1966	1.70
May 10, 1966	2.39
May 15, 1966	3.43
May 20, 1966	4.59
May 25, 1966	1.59
May 31, 1966	0.09

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
June 5, 1966	2.72
June 10, 1966	3.78
June 15, 1966	+ 0.03
June 20, 1966	1.13
June 26, 1966	2.97
June 30, 1966	3.20
July 5, 1966	2.97
July 10, 1966	4.59
July 15, 1966	4.93
July 20, 1966	4.93
July 25, 1966	4.47
July 31, 1966	5.62
Aug. 5, 1966	4.16
Aug. 10, 1966	—
Aug. 15, 1966	—
Aug. 20, 1966	4.12
Aug. 25, 1966	4.70
Aug. 31, 1966	4.01
Sept. 5, 1966	2.86
Sept. 10, 1966	1.47
Sept. 15, 1966	0.32
Sept. 20, 1966	+ 4.53
Sept. 25, 1966	+ 2.69
Sept. 30, 1966	+ 1.07
Oct. 5, 1966	0.20
Oct. 10, 1966	+ 1.18
Oct. 15, 1966	0.32
Oct. 20, 1966	+ 0.03
Oct. 25, 1966	+ 0.03
Oct. 31, 1966	0.78
Nov. 5, 1966	2.16
Nov. 10, 1966	2.51
Nov. 15, 1966	2.16
Nov. 20, 1966	2.39
Nov. 25, 1966	3.43
Nov. 30, 1966	3.55
Dec. 5, 1966	3.09

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
Dec. 10, 1966	4.12
Dec. 15, 1966	4.12
Dec. 20, 1966	3.32
Dec. 25, 1966	2.85
Dec. 31, 1966	—
Jan. 5, 1967	4.35
Jan. 10, 1966	4.47
Jan. 15, 1966	4.24
Jan. 20, 1966	4.47
Jan. 25, 1966	4.35
Jan. 31, 1966	4.24
Feb. 6, 1967	5.05
Feb. 10, 1967	5.05
Feb. 15, 1967	4.82
Feb. 20, 1967	4.93
Feb. 25, 1967	5.16
Feb. 28, 1967	4.59
Mar. 5, 1967	4.82
Mar. 10, 1967	5.28
Mar. 15, 1967	4.82
Mar. 20, 1967	5.39
Mar. 25, 1967	3.65
Mar. 31, 1967	4.01
Apr. 5, 1967	4.82
Apr. 10, 1967	5.05
Apr. 15, 1967	5.28
Apr. 20, 1957	4.82
Apr. 25, 1967	4.12
Apr. 30, 1967	—
May 5, 1967	5.28
May 10, 1967	—
May 15, 1967	—
May 20, 1967	5.97
May 25, 1967	6.13
May 31, 1967	5.62
June 5, 1967	6.20
June 10, 1967	6.09

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
June 15, 1967	6.09
June 20, 1967	5.97
June 25, 1967	6.20
June 30, 1967	5.85
July 5, 1967	5.39
July 10, 1967	5.62
July 15, 1967	6.09
July 20, 1967	6.97
July 25, 1967	5.16
July 31, 1967	5.85
Aug. 5, 1967	6.09
Aug. 10, 1967	5.93
Aug. 15, 1967	5.05
Aug. 20, 1967	5.74
Aug. 25, 1967	5.97
Aug. 31, 1967	6.09
Sept. 5, 1967	3.66
Sept. 10, 1967	4.70
Sept. 15, 1967	4.93
Sept. 20, 1967	+ 5.57
Sept. 25, 1967	+ 2.34
Sept. 30, 1967	+ 1.18
Oct. 5, 1967	+ 0.03
Oct. 10, 1967	0.89
Oct. 15, 1967	1.59
Oct. 20, 1967	1.13
Oct. 25, 1967	2.15
Oct. 31, 1967	1.59
Nov. 5, 1967	1.93
Nov. 10, 1967	2.05
Nov. 15, 1967	2.05
Nov. 20, 1967	2.39
Nov. 25, 1967	2.62
Nov. 30, 1967	3.66
Dec. 5, 1967	2.86
Dec. 10, 1967	3.89
Dec. 15, 1967	4.24
Dec. 20, 1967	3.32
Dec. 25, 1967	4.01
Dec. 31, 1967	4.24
Jan. 5, 1968	4.36
Jan. 10, 1968	2.97
Jan. 15, 1968	3.55
Jan. 20, 1968	3.78
Jan. 25, 1968	3.89
Jan. 31, 1968	3.89
Feb. 5, 1968	4.35
Feb. 10, 1968	4.47
Feb. 15, 1968	4.82
Feb. 20, 1968	3.43
Feb. 25, 1968	2.97
Feb. 28, 1968	--
Mar. 5, 1968	3.40
Mar. 10, 1968	3.66
Mar. 15, 1968	3.66
Mar. 20, 1968	0.32
Mar. 25, 1968	+ 0.72
Mar. 31, 1968	1.93
Apr. 5, 1968	2.39
Apr. 10, 1968	2.16
Apr. 15, 1968	1.36
Apr. 20, 1968	+ 8.23
Apr. 25, 1968	+ 7.76
Apr. 30, 1968	+ 6.26
May 5, 1968	+ 6.26
May 10, 1968	+ 6.73
May 15, 1968	+ 11.91
May 20, 1968	+ 6.96
May 25, 1968	+ 4.76
May 31, 1968	+ 4.76
June 5, 1968	--
June 10, 1968	+ 5.57
June 15, 1968	+ 4.65
June 20, 1968	+ 6.49
June 25, 1968	+ 5.57
June 30, 1968	+ 4.88
July 5, 1968	+ 13.41
July 10, 1968	--
July 15, 1968	--
July 20, 1968	+ 26.96
July 25, 1968	+ 29.27
July 31, 1968	+ 31.92
Aug. 5, 1968	+ 34.57
Aug. 10, 1968	+ 35.84
Aug. 15, 1968	+ 36.77
Aug. 20, 1968	+ 39.54
Aug. 25, 1968	+ 40.23
Aug. 31, 1968	--
Sept. 10, 1968	+ 43.87
Sept. 12, 1968	+ 45.91
Sept. 13, 1968	+ 45.91
Sept. 16, 1968	+ 47.52
Sept. 17, 1968	+ 47.75
Sept. 18, 1968	+ 48.21
Sept. 24, 1968	+ 42.68
Sept. 25, 1968	+ 42.68
Oct. 3, 1968	+ 46.71
Oct. 4, 1968	+ 47.17
Oct. 8, 1968	+ 47.52
Oct. 10, 1968	+ 47.87
Oct. 15, 1968	+ 48.21
Oct. 24, 1968	+ 48.90
Oct. 29, 1968	+ 48.90
Nov. 5, 1968	+ 49.94
Nov. 6, 1968	+ 50.01
Nov. 7, 1968	+ 48.90
Nov. 15, 1968	+ 49.25
Nov. 25, 1968	+ 49.25
Nov. 26, 1968	+ 49.83
Nov. 27, 1968	+ 49.93
Nov. 28, 1968	+ 50.03

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
Nov. 29, 1968	+ 50.13
Nov. 30, 1968	+ 50.23
Dec. 1, 1968	+ 50.33
Dec. 2, 1968	+ 50.43
Dec. 3, 1968	+ 60.53
Dec. 4, 1968	+ 50.63
Dec. 5, 1968	+ 50.70
Dec. 10, 1968	+ 51.21
Dec. 13, 1968	+ 51.67
Dec. 16, 1968	+ 50.06
Dec. 21, 1968	+ 49.83
Dec. 26, 1968	+ 47.25
Dec. 27, 1968	+ 48.33
Jan. 11, 1969	+ 46.71
Jan. 21, 1969	+ 48.33
Jan. 30, 1969	+ 48.56
Feb. 1, 1969	+ 48.67
Feb. 10, 1969	+ 48.67
Feb. 12, 1969	+ 48.90
Feb. 14, 1969	+ 49.02
Feb. 18, 1969	+ 50.06
Feb. 25, 1969	+ 52.37
Mar. 6, 1969	+ 54.67
Mar. 12, 1969	+ 61.59
Mar. 18, 1969	+ 60.44
Mar. 28, 1969	+ 62.75
Apr. 8, 1969	+ 60.44
Apr. 11, 1969	+ 61.32
Apr. 16, 1969	+ 65.05
Apr. 23, 1969	+ 71.97
May 3, 1969	+ 71.97
May 14, 1969	+ 71.97
May 19, 1969	+ 65.05
May 21, 1969	+ 67.36
May 23, 1969	+ 63.90
June 4, 1969	+ 66.21
June 6, 1969	+ 65.05

DATE	WATER LEVEL
Well YR-71-40-901 (Edwards water level)	
Owner: Mrs. E. Daughtrey	
Apr. 1, 1966	+ 1.6
Nov. 20, 1965	0.90
Nov. 25, 1965	1.24
Nov. 30, 1965	1.47
Dec. 5, 1965	1.70
Dec. 10, 1965	1.52
Dec. 15, 1965	1.70
Dec. 20, 1965	1.70
Dec. 25, 1965	1.93
Dec. 31, 1965	1.70
Jan. 5, 1966	2.04
Jan. 10, 1966	2.39
Jan. 15, 1966	2.28
Jan. 20, 1966	2.16
Jan. 25, 1966	2.28
Jan. 31, 1966	2.39
Feb. 5, 1966	2.86
Feb. 10, 1966	2.86
Feb. 15, 1966	2.74
Feb. 20, 1966	2.97
Feb. 25, 1966	1.82
Feb. 28, 1966	2.28
Mar. 5, 1966	3.43
Mar. 10, 1966	2.74
Mar. 15, 1966	2.51
Mar. 20, 1966	2.51
Mar. 25, 1966	3.20
Mar. 31, 1966	2.51
Apr. 5, 1966	2.05
Apr. 10, 1966	2.51
Apr. 15, 1966	2.97
Apr. 20, 1966	+ 0.03
Apr. 25, 1966	+ 8.91
Apr. 30, 1966	+ 6.15
May 5, 1966	+ 4.42

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
May 10, 1966	+ 3.61
May 15, 1966	+ 2.22
May 20, 1966	+ 1.30
May 25, 1966	+ 6.61
May 31, 1966	+ 7.19
June 5, 1956	+ 3.96
June 10, 1966	+ 2.34
June 15, 1966	+ 7.88
June 20, 1966	+ 6.38
June 25, 1966	+ 3.96
June 30, 1966	+ 3.49
July 5, 1966	+ 3.38
July 10, 1966	+ 1.53
July 15, 1966	+ 1.07
July 20, 1966	+ 0.95
July 25, 1966	+ 1.07
July 31, 1966	0.32
Aug. 5, 1966	+ 0.26
Aug. 10, 1966	+ 0.37
Aug. 15, 1966	+ 3.49
Aug. 20, 1966	+ 1.76
Aug. 25, 1966	+ 1.41
Aug. 31, 1966	+ 1.99
Sept. 5, 1966	+ 3.03
Sept. 10, 1966	+ 5.92
Sept. 15, 1966	+ 7.07
Sept. 20, 1966	+ 14.23
Sept. 26, 1966	+ 11.45
Sept. 30, 1966	+ 8.91
Oct. 5, 1966	+ 6.96
Oct. 10, 1966	+ 8.23
Oct. 15, 1966	+ 6.15
Oct. 20, 1965	+ 6.15
Oct. 25, 1966	+ 5.57
Oct. 31, 1966	+ 4.99
Nov. 5, 1966	+ 3.15
Nov. 10, 1966	+ 2.57

Table 6.—Water Levels in Wells—Continued

DATE	WATER LEVEL
Well YR-71-40-901—Cont'd.	
Nov. 15, 1966	+ 2.80
Nov. 20, 1966	+ 2.46
Nov. 25, 1966	+ 1.41
Nov. 30, 1966	+ 1.41
Dec. 5, 1966	+ 1.30
Dec. 10, 1966	+ 0.26
Dec. 15, 1966	+ 0.37
Dec. 20, 1966	+ 1.07
Dec. 25, 1966	+ 0.84
Dec. 31, 1966	+ 0.03
Jan. 5, 1967	0.20
Jan. 10, 1967	0.55
Jan. 15, 1967	0.66
Jan. 20, 1967	0.78
Jan. 25, 1967	0.66
Jan. 31, 1967	0.66
Feb. 5, 1967	1.59
Feb. 10, 1967	1.59
Feb. 15, 1967	1.47
Feb. 20, 1967	1.93
Feb. 25, 1967	2.05
Feb. 28, 1967	1.59
Mar. 5, 1967	1.82
Mar. 10, 1967	2.16
Mar. 15, 1967	1.93
Mar. 20, 1967	2.39
Mar. 25, 1967	1.70
Mar. 31, 1967	1.13
Apr. 5, 1967	1.82
Apr. 10, 1967	2.16
Apr. 15, 1967	2.51
Apr. 20, 1967	2.05
Apr. 25, 1967	1.93
Apr. 30, 1967	2.28
May 5, 1967	2.62
May 10, 1967	2.51
May 15, 1967	3.20
May 20, 1967	3.32
May 25, 1967	3.39
May 31, 1967	3.09
June 5, 1967	3.55
June 10, 1967	3.43
June 15, 1967	3.15
June 20, 1967	3.43
June 25, 1967	3.55
June 30, 1967	3.32
July 5, 1967	2.89
July 10, 1967	3.09
July 15, 1967	3.55
July 20, 1967	3.66
July 25, 1967	2.74
July 31, 1967	3.32
Aug. 5, 1967	3.66
Aug. 10, 1967	3.55
Aug. 15, 1967	2.62
Aug. 20, 1967	3.20
Aug. 25, 1967	3.55
Aug. 31, 1967	3.78
Sept. 5, 1967	1.36
Sept. 10, 1967	2.28
Sept. 15, 1967	2.51
Sept. 20, 1967	+ 8.69
Sept. 25, 1967	+ 5.46
Sept. 30, 1967	+ 3.96
Oct. 5, 1967	+ 3.03
Oct. 10, 1967	+ 1.99
Oct. 15, 1967	+ 1.30
Oct. 20, 1967	+ 1.76
Oct. 25, 1967	+ 1.18
Oct. 31, 1967	+ 1.11
Nov. 5, 1967	+ 0.95
Nov. 10, 1967	+ 0.84
Nov. 15, 1967	+ 0.95
Nov. 20, 1967	+ 0.49
Nov. 25, 1967	+ 0.26
Nov. 30, 1967	0.55
Dec. 5, 1967	0.20
Dec. 10, 1967	0.89
Dec. 15, 1967	1.36
Dec. 20, 1967	0.66
Dec. 25, 1967	1.13
Dec. 31, 1967	1.47
Jan. 5, 1968	1.59
Jan. 10, 1968	0.78
Jan. 15, 1968	1.22
Jan. 20, 1968	1.70
Jan. 25, 1968	1.36
Jan. 31, 1968	1.36
Feb. 5, 1968	1.92
Feb. 10, 1968	1.93
Feb. 15, 1968	2.16
Feb. 20, 1968	1.36
Feb. 25, 1968	1.24
Feb. 28, 1968	1.59
Mar. 5, 1968	1.35
Mar. 10, 1968	1.59
Mar. 15, 1968	1.70
Mar. 20, 1968	+ 2.46
Mar. 25, 1968	+ 2.80
Mar. 31, 1968	+ 0.03
Apr. 5, 1968	0.55
Apr. 10, 1968	0.78
Apr. 15, 1968	+ 0.03
Apr. 20, 1968	+ 10.53
Apr. 25, 1968	+ 9.84
Apr. 30, 1968	+ 8.11
May 5, 1968	+ 8.11
May 10, 1968	+ 8.23
May 15, 1968	+ 9.96
May 20, 1968	+ 8.80
May 25, 1968	+ 6.84

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties

(Analyses given are in milligrams per liter, except percent sodium, sodium adsorption ratio, residual sodium carbonate, specific conductance, and pH.)

Water-bearing unit: KQ, Pleistocene, and Holocene alluvial deposits; Kbu, Boquillas Flags; Kbu, Buda limestone; Ked, Edwards and associated limestones; Kgr, Glen Rose Limestone.

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM Na	SODIUM AND POTASSIUM K	BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
Val Verde County																						
TE-54-43-901	500	Oct. 17, 1968	Kau	17	--	32	18	12	1.2	220	12	23	0.8	1.1	--	255	204	11	0.4	0.00	445	7.8
46-902	80	Sept. 18, 1968	KQ	--	--	107	23	--	--	282	53	350	--	--	--	--	362	--	--	.00	1,530	7.4
46-903	369	Jan. 8, 1969	Kgr	10	--	34	48	445	16	664	498	365	2.9	1.9	--	1,710	383	72	10	.00	2,750	7.3
48-801	216	May 31, 1939	Kau	--	--	48	22	11	--	290		15	--		--	229	213	--	--	--	--	--
801	216	Oct. 3, 1962	Kau	17	--	64	20	9	--	269	9	17	.3	10	--	278	239	--	--	--	478	7.5
801	216	Aug. 19, 1969	Kau	--	--	58	18	--	--	268	9.4	16	--	--	--	--	239	--	--	.00	481	7.6
51-801	640	Aug. 25, 1969	Kau	20	0.23	37	18	13	--	197	8.8	19	.4	1.5	--	212	166	15	.4	.00	373	7.6
901	400	do.	Kau	19	--	41	16	19	--	182	17	26	.5	5.2	--	233	168	20	.6	.00	404	7.2
52-101	11	Oct. 17, 1968	Kgr	--	--	79	15	--	--	276	18	22	--	--	--	--	258	--	--	.00	536	7.7
201	125	Mar. 15, 1961	Kau	--	--	--	--	--	--	187	--	600	--	--	--	--	680	--	--	--	1,680	7.3
201	125	Sept. 17, 1968	Kau	--	--	100	24	--	--	226	49	255	--	--	--	--	360	--	--	.00	1,290	7.3
201	125	Aug. 25, 1969	Kau	21	--	100	20	103	--	276	42	197	.7	13	--	635	331	43	2.5	.00	1,140	7.2
303	300	do.	Kgr	10	5.1	55	36	383	--	534	400	375	2.6	.9	--	1,350	285	73	9.9	.63	2,130	7.6
301	300	May 3, 1939	Kgr	--	--	52	43	414	--	500	404	265	--		--	1,426	306	--	--	--	--	--
301	300	Aug. 27, 1969	Kgr	11	12	62	43	418	--	492	404	275	3.0	.6	--	1,480	332	73	20	1.43	2,300	7.2
501	162	Oct. 15, 1968	Kau	--	--	62	16	--	--	224	11	17	--	--	--	--	220	--	--	.00	447	7.8
503	69	May 10, 1939	Kau	--	--	83	14	14	--	256	25	36	.3		--	308	263	--	--	--	--	--
503	130	Oct. 15, 1968	Kau	--	--	102	22	--	--	284	35	170	--	--	--	--	343	--	--	.00	1,050	7.6
504	168	Aug. 27, 1969	Kau	--	--	88	23	--	--	282	24	135	--	--	--	--	314	--	--	.00	920	7.2
601	80	May 10, 1939	Kau	--	--	56	18	26	--	244	14	34	.2		--	278	216	--	--	--	--	--
601	80	May 29, 1969	Kau	--	--	94	20	--	--	302	36	70	--	--	--	--	317	--	--	.00	773	7.3
603	80	Aug. 27, 1969	Kau	21	--	38	19	13	--	166	11	19	.5	.8	--	196	168	16	.5	.00	335	7.0
604	200	May 3, 1939	Kau	--	--	56	20	12	--	256	12	18	--		--	264	222	--	--	--	--	--
701	250	Apr. 19, 1939	Kau	--	--	--	--	--	--	220	12	14	--		--	219	--	--	--	--	--	--
801	Spring	May 18, 1939	Kau	--	--	76	19	3	--	268	15	21	.6		--	276	267	--	--	--	--	--
801	Spring	July 1963	Kau	--	--	82	17	19	--	276	12	51	--	2.2	--	326	274	--	--	--	--	--
801	Spring	May 29, 1969	Kau	--	--	81	14	--	--	266	25	107	--	--	--	--	260	--	--	.00	812	7.5
53-201	280	May 3, 1939	Kau	--	--	76	20	5	--	311	10	12	.4		--	276	272	--	--	--	--	--
201	280	Aug. 27, 1969	Kau	--	--	62	21	--	--	266	10	13	--	--	--	--	241	--	--	.00	681	7.2
54-101	480	May 10, 1939	Kau	--	--	49	21	14	--	244		20	.4		--	233	208	--	--	--	--	--
501	300	do.	Kau	--	--	37	15	8	--	238		13	.4		--	218	204	--	--	-	--	-
701	526	do.	Kau	--	--	49	12	13	--	207		12	--		--	203	173	--	--	--	--	--
701	526	July 12, 1961	Kau	--	--	--	--	--	--	310	8.4	12	--	--	--	--	180	--	--	--	383	6.9
802	600	Aug. 27, 1969	Kau	15	--	49	22	34	--	332	22	32	1.6	3.5	--	283	213	20	.7	.00	503	7.1
53-701	130	May 31, 1939	Kau	--	--	48	20	7	--	220	10	10	--		--	218	202	--	--	--	--	--
801	--	Jan. 7, 1969	Kau	16	--	69	14	7.9	1.5	258	9	13	.6	12	--	270	230	7	.2	.00	477	7.6
902	125	May 31, 1939	Kau	--	--	40	11	14	--	183	11	12	--		--	178	147	--	--	--	--	--
56-102	140	Jan. 27, 1954	Kau	17	--	84	18	11	.9	265	8	16	.6	6.1	0.13	275	234	--	--	--	488	7.7
301	227	Oct. 24, 1968	Kau	--	--	54	23	--	--	258	13	11	--	--	--	--	229	--	--	.00	454	7.7
404	216	May 31, 1939	Kau	--	--	37	16	32	--	264	11	13	--		--	229	160	--	--	--	--	--
504	130	May 30, 1939	Kau	--	--	85	14	8	--	256		9	--		--	229	219	--	--	--	--	--

See footnotes at end of table.

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM (Na)	SODIUM AND POTASSIUM (K)	BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
										Val Verde County												
YR-54-56-602	200	Jan. 27, 1954	Kmk	17	--	74	17	7.5	1.3	288	13	11	0.6	6.6	0.10	290	234	--	--	--	501	7.6
701	75	May 31, 1939	HQ	--	--	63	15	18	--	281	11	12	.3		--	252	219	--	--	--	--	--
701	75	Aug. 16, 1968	HQ	15	0.01	74	16	9.5	1.9	275	12	15	.3	12	--	291	250	7	0.3	0.00	496	7.2
59-501	283	Apr. 19, 1939	Kmk	--	--	72	12	3	--	344	11	19	--		--	239	227	--	--	--	--	--
401	828	Aug. 23, 1969	Kmk	12	3.6	74	39	37	--	226	134	37	2.8	.1	--	487	345	19	.9	.00	772	7.2
501	768	do.	Kmk	11	2.2	48	26	23	--	228	51	19	5.8	.1	--	294	227	18	.7	.00	508	7.3
801	900	do.	Kmk,Kgr	12	1.3	185	90	88	--	268	608	307	3.0	.0	--	1,320	892	18	1.3	.00	1,720	7.3
60-201	212	May 2, 1939	Kmk	--	--	147	46	245	--	165	387	390	--		--	1,294	559	--	--	--	--	--
201	215	Aug. 27, 1969	Kmk	14	--	129	42	201	--	250	250	478	.9	20	--	1,350	494	57	5.9	.00	2,280	7.0
301	Spring	May 8, 1939	Kmk	--	--	71	15	4	--	330	32	16	.4		--	251	239	--	--	--	--	--
302	Spring	May 19, 1939	Kmk	--	--	60	21	12	--	268	32	22	4		--	259	238	--	--	--	--	--
302	Spring	May 29, 1969	Kmk	--	--	79	15	--	--	268	24	93	--	--	--	--	258	--	--	.00	771	7.4
501	534	Aug. 27, 1969	Kmk	13	--	68	25	16	--	238	27	18	3.5	.0	--	268	223	14	.5	.00	477	7.3
804	300	Apr. 19, 1939	Kmk	--	--	89	25	50	--	250	85	100	--		--	472	325	--	--	--	--	--
801	500	July 16, 1951	Kmk	--	--	--	--	--	--	252	106	280	--	--	--	--	396	--	--	--	1,450	7.3
801	500	Sept. 25, 1968	Kmk	--	--	96	25	--	--	268	96	230	--	--	--	--	338	--	--	.00	1,300	7.9
802	550	Apr. 27, 1939	Kmk	--	--	36	32	12	--	214	20	28	2.0		--	233	215	--	--	--	--	--
803	489	Aug. 25, 1969	Kmk	14	--	53	24	33	--	218	19	59	2.8	1.0	--	336	230	28	.9	.00	593	7.2
61-301	550	Oct. 8, 1968	Kmk	14	--	46	18	10	1.1	204	13	16	1.5	6.2	--	226	189	10	.5	.00	408	7.6
901	400	May 4, 1939	Kmk	--	--	56	20	16	--	232	16	35	--		--	257	222	--	--	--	--	--
902	600	Aug. 28, 1969	Kmk	14	--	60	27	38	--	240	47	60	2.6	7.6	--	324	260	24	1.0	.00	659	7.3
67-301	670	Sept. 12, 1939	Kmk	--	--	96	33	47	--	256	64	138	2.2		--	506	375	--	--	--	--	--
503	600	Aug. 27, 1969	Kmk	13	.15	51	24	35	--	234	28	50	3.2	2.0	--	321	226	25	1.0	.00	575	7.1
601	445	Sept. 12, 1939	Kmk	--	--	73	11	5	--	214	13	13	.4		--	222	227	--	--	--	--	--
602	800	do.	Kmk	--	--	74	28	5	--	262	36	23	2.4		--	292	291	--	--	--	--	--
63-801	Spring	June 14, 1939	Kmk	--	--	72	11	10	--	275	10	10	.3		--	268	227	--	--	--	--	--
64-301	79	June 15, 1939	Kmk	--	--	28	13	19	--	177	10	6	--		--	163	123	--	--	--	--	--
302	85	do.	Kmk	--	--	72	14	7	--	268	10	9	--		--	241	227	--	--	--	--	--
204	175	Jan. 23, 1970	Kmk	--	--	70	15	--	--	268	8.6	33	--	--	--	--	238	--	--	.00	473	7.7
402	125	June 15, 1939	Kmk	--	--	74	13	24	--	305		20	.2		--	296	238	--	--	--	--	--
602	125	Aug. 29, 1968	Kmk	--	--	70	14	--	--	261	8.0	96	--	--	--	--	232	--	--	.00	460	7.4
55-41-701	93	May 30, 1939	Kmk	--	--	50	13	18	--	244		11	--		--	222	184	--	--	--	339	--
801	256	Jan. 27, 1954	Kmk	16	--	76	18	8.7	1.3	293	16	14	.6	8.0	.10	306	244	--	--	--	519	7.4
802	323	do.	Kmk	17	--	76	18	8.8	1.3	296	11	13	.6	7.2	.14	301	244	--	--	--	515	7.4
48-101	180	Oct. 24, 1968	Kmk	18	--	84	17	14	1.6	308	16	24	.6	9.1	.12	335	285	18	.6	.00	517	7.3
103	125	July 13, 1961	Kmk	--	--	--	--	--	--	284	13	20	--	--	--	--	260	--	--	--	531	7.1
104	100	May 30, 1939	Kmk	--	--	53	13	12	--	226		14	.2		--	211	188	--	--	--	--	--
201	180	Oct. 24, 1968	Kmk	--	--	74	19	--	--	296	11	13	--	--	--	--	262	--	--	.00	514	7.4
501	120	May 30, 1939	Kmk	--	--	59	11	11	--	331	10	13	.6		--	276	256	--	--	--	--	--
50-201	600	Aug. 21, 1969	Kmk	16	--	74	13	9.2	--	268	7.6	16	.2	13	--	279	238	8	.3	.00	488	7.2
302	350	do.	Kmk	18	--	51	7.6	20	--	146	11	48	3	17	--	237	156	22	.7	.00	434	7.4
901	390	do.	Kmk	14	--	60	10	7.6	--	212	7.8	12	.4	9.3	--	225	193	8	.2	.00	401	7.5
51-701	360	do.	Kmk	13	--	58	17	8.5	--	250	7.2	13	.5	4.6	--	244	217	8	.3	.00	439	7.2

See footnotes at end of table.

Table 2.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM (Na + K)		BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
								Na	K													
Val Verde County																						
FR-51-57-802	350	Feb. 13, 1969	Kmr	24	--	58	19	8.3 1/	--	234	9.6	13	0.4	7.3	--	256	225	7	0.2	0.00	439	7.6
58-702	250	Aug. 16, 1939	Kmr	--	--	28	8	11 1/	--	134	3/	11	--	3/	--	139	105	--	--	--	--	--
301	380	do.	Kmr	--	--	30	26	22 1/	--	183	16	45	--	3/	--	229	181	--	--	--	--	--
601	450	do.	Kmr	--	--	57	12	18 1/	--	250	11	13	--	3/	--	235	193	--	--	--	--	--
59-101	300	do.	Kmr	--	--	19	12	23 1/	--	125	3/	16	--	3/	--	123	98	--	--	--	--	--
103	300	Aug. 30, 1969	Kmr	--	--	71	10	--	--	230	6.0	10	--	--	--	--	218	--	--	.00	434	7.4
701	260	Aug. 16, 1939	Kmr	--	--	45	20	3 1/	--	214	3/	13	.2	3/	--	192	192	--	--	--	--	--
70-01-103	185	Feb. 13, 1969	Kmr	17	2.2	45	22	3.6 1/	--	232	5.4	5.3	.3	9.2	--	216	200	4	.1	.00	382	7.7
201	243	Aug. 23, 1939	Kmr	--	--	33	17	6 1/	--	293	3/	16	--	3/	--	257	150	--	--	--	--	--
701	Spring	Feb. 4, 1969	Kmr	14	--	69	16	6.9 1/	--	268	7.6	12	.3	9.1	--	267	238	6	.2	.00	453	7.9
2/ 702	Spring	Mar. 4, 1966	Kmr	13	--	69	14	9.0	1.2	266 3/	6.8	14	--	8.1	--	256	232	8	.3	--	447	8.3
2/ 702	Spring	May 20, 1966	Kmr	11	--	64	11	7.6	2.3	241	7.7	13	--	9.3	--	259	212	7	.2	--	441	7.7
2/ 702	Spring	Sept. 17, 1966	Kmr	10	--	68	14	7.8	1.2	259	8.6	12	--	8.7	--	245	226	7	.2	--	440	7.8
2/ 702	Spring	Jan. 20, 1967	Kmr	10	--	68	15	8.3	1.7	265	7.3	14	--	8.1	--	258	233	7	.2	--	455	8.0
2/ 703	Spring	Sept. 12, 1966	Kmr	10	--	69	13	7.6	1.2	256	7.2	14	--	11	--	272	176	7	.2	--	432	8.0
2/ 703	Spring	Jan. 20, 1967	Kmr	10	--	69	15	8.5	1.2	270	4.8	13	--	8.7	--	268	236	7	.2	--	465	8.0
2/ 704	Spring	Sept. 17, 1966	Kmr	10	--	70	13	7.4	1.2	266 3/	9.6	14	--	8.9	--	277	229	7	.2	--	443	8.2
02-201	230	Aug. 10, 1939	Kmr	--	--	53	25	5 1/	--	256	3/	9	.5	3/	--	217	135	--	--	--	--	--
201	230	Aug. 29, 1969	Kmr	--	--	48	22	--	--	250	7.2	10	--	--	--	--	213	--	--	.00	421	7.4
203	224	Aug. 10, 1939	Kmr	--	--	60	24	5 1/	--	214	3/	11	.6	3/	--	190	200	--	--	--	--	--
301	266	do.	Kmr	--	--	--	--	--	--	232	3/	10	--	3/	--	210	--	--	--	--	--	--
302	262	Feb. 12, 1969	Kmr,Kgr	9.0	9.2	68	49	10 1/	--	238	190	12	1.3	.0	--	466	371	10	.3	.00	732	8.8
304	600	Aug. 8, 1939	Kmr,Kgr	--	--	64	57	28 1/	--	268	181	26	4.0	3/	--	492	393	--	--	--	--	--
602	540	Aug. 29, 1969	Kmr	--	--	32	70	--	--	200	4.8	8.0	--	--	--	--	175	--	--	.00	348	7.8
603	260	Aug. 8, 1939	Kmr	--	--	47	13	8 1/	--	195	10	14	.2	3/	--	188	173	--	--	--	--	--
701	217	Aug. 6, 1968	Kmr	14	--	76	19	6.1	1.3	246	5.6	16	.3	10	--	268	230	5	.2	.00	438	7.6
901	355	Aug. 7, 1939	Kmr	--	--	54	30	4 1/	--	250	40	12	1.1	3/	--	266	239	--	--	--	--	--
903	355	Aug. 14, 1968	Kmr	--	--	36	26	--	--	200	24	12	--	--	--	--	188	--	--	.00	386	7.8
03-101	300	Aug. 8, 1939	Kmr	--	--	43	29	5 1/	--	230	3/	20	.7	32	--	247	231	--	--	--	--	--
10-201	309	Aug. 14, 1939	Kmr	--	--	--	--	--	--	195	17	15	--	3/	--	207	--	--	--	--	--	--
201	309	Aug. 30, 1969	Kmr	--	--	63	8.5	--	--	202	8.2	9.4	--	--	--	--	184	--	--	.00	378	7.5
501	320	Aug. 14, 1939	Kmr	--	--	66	9	1 1/	--	153	3/	12	--	3/	--	147	145	--	--	--	--	--
801	600	Aug. 15, 1939	Kmr	--	--	64	7	9 1/	--	226	3/	11	--	3/	--	210	190	--	--	--	--	--
11-401	185	Aug. 17, 1939	Kmr	--	--	63	21	3 1/	--	220	3/	10	--	3/	--	198	193	--	--	--	--	--
801	309	Feb. 3, 1969	Kmr	17	1.4	43	19	4.2 1/	--	200	7.0	9.2	.8	2.8	--	200	185	5	.1	.00	366	7.7
3/ 17-301	700 3/	Apr. 23, 1965	Kmr	8	--	52	10	6.0	.8	193	4.8	8.5	--	8.1	--	181	172	7	.2	--	363	7.9
2/ 401	406 3/	May 4, 1965	Kmr	8	--	53	14	9.5	2.0	189	30	13	--	1.2	--	235	189	10	.3	--	413	8.0
2/ 401	670 3/	May 10, 1965	Kmr	8	--	43	7.8	6.0	.8	153	4.3	10	--	6.9	--	151	136	9	.2	--	300	8.0
18-101	300	June 29, 1939	Kmr	--	--	47	16	2 1/	--	207	3/	9	--	3/	--	185	185	--	--	--	--	--
201	680	do.	Kmr	--	--	42	19	2 1/	--	201	3/	12	.4	3/	--	179	182	--	--	--	--	--
901	690	Jan. 28, 1969	Kmr	--	--	--	--	--	--	204	3.0	9.5	.5	--	--	--	188	--	--	.00	353	7.7
301	700	Aug. 12, 1969	Kmr	12	--	44	17	10 1/	--	199	10	14	1.2	6.4	--	213	188	11	.3	.00	377	7.6
401	600	Sept. 5, 1939	Kmr	--	--	54	12	11 1/	--	232	3/	9	.2	3/	--	206	182	--	--	--	--	--

See footnotes at end of table.

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM Na	SODIUM AND POTASSIUM K	BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
Val Verde County																						
[illegible]-70-18-401	600	Aug. 15, 1969	Kas	--	--	60	9.3	--	--	211	7.2	8.2	--	--	--	--	188	--	--	0.00	380	7.4
25-501	--	Jan. 25, 1967	Kas	18	0.04	61	7.6	33	0.8	212	12	17	0.4	4.5	0.09	243	193	12	0.4	.00	715	7.4
601	488	Sept. 5, 1939	Kas	--	--	83	12	5	--	244	13	17	.5		--	251	258	--	--	--	--	--
601	480	Aug. 11, 1969	Kas	--	--	73	8.0	--	--	220	15	56	--	--	--	--	215	--	--	.00	548	7.6
606	500	Sept. 5, 1939	Kas	--	--	71	11	5	--	220	12	10	.2		--	237	222	--	--	--	--	--
801	220	July 28, 1939	Kas	--	--	104	24	9	--	287	101	24	2.5		--	406	360	--	--	--	--	--
16-201	420	Aug. 14, 1968	Kas	15	--	80	2.2	33	2.5	240	11	21	.3	7.4	--	270	209	12	.4	.00	460	7.8
202	1,100	Aug. 22, 1969	Kas	15	.03	88	3.6	35	1.1	244	27	26	.6	5.0	.09	297	230	12	.6	.00	509	7.1
33-101	472	Oct. 30, 1964	Kas	10	--	52	6.1	9.7	1.2	171	6.8	20	--	5.8	--	212	155	12	.3	--	262	7.9
301	430	Aug. 14, 1968	Kas	13	.04	113	6.6	9.0	1.4	241	96	25	2.7	.00	--	378	309	6	.2	.00	691	7.0
303	653	Mar. 4, 1965	Kas	10	--	51	7.4	10	1.2	168	7.2	20	--	9.3	--	204	158	12	.4	--	365	8.1
303	1,000	Mar. 16, 1965	Kas	9	--	47	7.8	9.7	1.2	165	5.5	16	--	6.8	--	188	149	12	.3	--	348	8.1
402	180	May 18, 1951	Kas	15	--	122	25	19	3.5	323	130	28	--	--	--	372	407	9	--	--	853	7.6
403	423	June 6, 1952	Kas	5	--	136	24	41	5.5	490	408	48	--	--	.47	736	435	16	--	--	1,010	7.5
501	610	June 4, 1969	Kas	20	--	78	7.3	41	--	241	19	59	.4	15	--	359	224	28	1.2	.00	539	7.2
601	510	June 7, 1966	Kas	8	--	65	7.4	7.8	1.2	219	10	16	--	--	--	238	193	8	.2	--	372	8.5
602	342	Feb. 20, 1967	Kas	8	--	74	5.6	6.9	1.2	238	5.8	12	--	12	--	249	208	7	.2	--	414	7.8
604	554	July 24, 1939	Kas	--	--	93	13	3	--	281	12	29	.4		--	286	290	--	--	--	--	--
604	554	July 22, 1968	Kas	11	--	74	8	9	1.2	238	6.7	20	--	6.2	--	261	217	8	.3	--	--	7.8
703	520	Apr. 6, 1939	Kas	--	--	630	27	40	--	183	1,531	19	--		--	2,337	1,686	--	--	--	--	--
703	520	Mar. 14, 1966	Kas	12	--	628	27	32	1.6	214	1,465	19	--	--	--	2,404	1,637	2	.1	--	2,360	7.2
703	520	July 22, 1968	Kas	13	--	627	30	12	1.6	214	1,461	16	--	.6	--	2,414	1,686	2	.1	--	2,390	7.4
702	772	Aug. 25, 1964	Kas	8	--	636	34	16	2.3	128	1,600	18	--	--	--	2,561	1,737	2	.2	--	2,640	8.2
702	972	Aug. 27, 1964	Kas	10	--	590	44	17	2.7	153	1,505	20	--	--	--	2,427	1,652	2	.2	--	2,380	7.8
703	282	Jan. 1, 1951	Kas	21	--	123	24	19	3.9	330	132	31	--	--	.14	568	408	9	--	--	821	7.5
706	305	Mar. 13, 1967	Kas	9	--	617	38	13	2.3	140	1,535	16	--	.6	--	2,477	1,696	2	.1	--	2,620	7.9
706	305	July 22, 1968	Kas	13	--	626	39	13	2.3	162	1,548	18	--	.6	--	2,488	1,726	2	.1	--	2,620	7.3
705	97	Aug. 4, 1964	Kas	15	--	515	55	23	3.1	260	1,250	33	--	1.9	--	2,047	1,504	3	.3	--	2,180	7.7
803	Spring	Apr. 6, 1939	Kas	--	--	--	--	--	--	244	11	14	.1		--	238	--	--	--	--	--	--
803	Spring	Sept. 23, 1966	Kas	8	--	84	7.1	11	.8	242	13	19	--	4.3	--	298	238	9	.3	--	489	8.2
802	230	June 18, 1964	Kas	12	--	505	79	20	3.1	136	1,621	27	--	.6	--	2,297	1,589	--	--	--	2,330	8.1
804	240	May 18, 1951	Kas	30	--	101	28	40	1.2	310	90	32	--	5.1	.21	580	369	19	--	--	861	7.7
805	126	June 3, 1964	Kas	11	--	182	23	14	2.3	237	320	28	--	12	--	768	550	--	.3	--	995	8.3
24-303	581	Apr. 5, 1965	Kas	9	--	59	7.1	5.8	.8	206	4.3	12	--	--	--	216	177	7	.2	--	363	8.0
303	815	Apr. 12, 1965	Kas	8	--	26	6.2	6.0	.8	98	4.3	8.5	--	8.7	--	114	91	12	.3	--	234	8.0
801	291	Aug. 13, 1968	Kas	12	--	76	6.5	4.8	1.1	264	8.0	9.3	.2	5.0	--	241	216	5	.1	40	415	7.1
701	135	Aug. 2, 1968	Kas	15	--	88	20	9.8	1.2	296	30	29	.5	4.9	.06	342	297	7	.2	.00	586	7.7
803	120	Aug. 1, 1968	Kas	--	--	146	14	--	--	356	34	103	--	--	--	522	--	--	--	.00	914	7.0
41-203	50	Aug. 20, 1968	EQ	63	--	121	32	59	--	308	47	81	1.2	1.5	--	646	434	28	1.4	.00	1,085	7.1
303	Spring	Mar. 31, 1939	Kas	--	--	66	7	11	--	238		10	--		--	220	195	--	--	--	--	--
303	Spring	June 4, 1938	Kas	13	.01	54	6.5	9.3	--	251	5.5	10	.2	6.9	--	256	213	9	.3	--	434	7.3
302	Spring	Feb. 4, 1966	Kas	10	--	76	6.9	5.8	.8	250	5.8	12	--	6.2	--	269	218	5	.2	--	431	8.0
301	Spring	May 25, 1966	Kas	9	--	74	6.3	5.5	2.5	241	4.3	10	--	7.4	--	257	210	5	.2	--	430	7.5

See footnotes at end of table.

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM Na	SODIUM AND POTASSIUM K	BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
Val Verde County																						
4 YR-70-41-301	Spring	Sept. 21, 1966	Kea	9	--	72	5.5	4.4	0.8	226	7.2	9.6	--	9.9	--	228	201	5	0.1	--	394	7.8
301	Spring	May 21, 1969	Kea	--	--	--	--	--	--	242	6.8	8.7	--	--	--	--	--	--	--	--	422	8.0
301	Spring	Jan. 13, 1970	Kea	--	--	--	--	--	--	--	6.6	9.4	--	--	--	--	--	--	--	--	347	--
302	Spring	Mar. 18, 1952	Kea	12	--	76	8.3	5.9 1/	--	257	8	11	--	8.5	0.09	280 6/	224	5	--	--	464	7.2
4 302	Spring	May 25, 1966	Kea	10	--	81	6.8	6.7	1.9	256	11	15	--	1.2	--	273	230	6	.2	--	464	7.6
4 302	Spring	Sept. 21, 1966	Kea	9	--	79	5.8	6.0	1.2	253	7.2	12	--	5.0	--	269	211	6	.2	--	440	7.4
302	Spring	May 21, 1969	Kea	--	--	--	--	--	--	260	14	--	--	--	--	--	--	--	--	--	479	7.8
303	Spring	do.	Kea	--	--	--	--	--	--	264	40	29	--	--	--	--	--	--	--	--	582	7.8
303	Spring	Jan. 13, 1970	Kea	--	--	--	--	--	--	--	33	28	--	--	--	--	--	--	--	--	549	--
4 601	150	June 25, 1965	KQ	14	--	--	--	188 1/	--	376	132	80	--	41	--	700	171	70	6.3	--	1,120	7.7
42-101	134	Aug. 8, 1968	Kea	19	0.00	85	34	17	1.8	342	32	51	1.2	.1	--	409	352	9	.4	0.00	707	7.8
102	125	do.	Kea	--	--	103	52	--	--	402	114	59	--	--	--	--	471	--	--	.00	948	7.7
103	200	Aug. 20, 1969	Kea	17	--	88	22	14 1/	--	306	28	38	.8	8.3	--	366	310	9	.3	.00	644	7.2
201	500	July 29, 1939	Kea	--	--	62	30	26 1/	--	305	48	25	.8	3/	--	341	279	--	--	--	--	--
202	205	Aug. 3, 1968	Kea	64	--	248	150	373	3.4	406	226	1,060	2.1	14	--	2,340	1,240	40	4.6	.00	4,030	7.4
203	280	Aug. 7, 1968	Kea	--	--	110	48	--	--	342	57	176	--	--	--	--	472	--	--	.00	1,140	7.5
204	285	Aug. 20, 1969	KQ,Kea	100	.17	96	70	200 1/	--	452	188	258	3.9	28	--	1,170	528	45	3.8	.00	1,810	7.3
205	750 9/	July 11, 1942	Kea	15	.08	110	20	11 1/	--	336	66	24	.5	.0	--	412	356	--	--	--	--	--
208	575 9/	Aug. 10, 1942	Kea	--	.06	53	31	41 1/	--	317	41	32	.6	.0	--	421 6/	260	--	--	--	--	7.5
208	635 9/	Aug. 15, 1942	Kea	--	.06	78	16	22 1/	--	295	21	32	--	.0	--	1,333 6/	260	--	--	--	--	7.3
208	635 9/	Nov. 13, 1942	Kea	18	.18	84	13	14 1/	--	299	14	23	.2	.0	--	322	263	--	--	--	--	7.3
209	605 9/	July 20, 1942	Kea	--	--	--	--	--	--	496	--	103	--	--	--	--	--	--	--	--	--	--
209	650 9/	July 25, 1942	Kea	11	--	71	67	106 1/	--	649	3	100	2.8	.0	--	709 6/	452	--	--	--	--	7.4
209	710 10/	Aug. 25, 1942	Kea	--	--	--	--	--	--	289	1,259	13	--	--	--	--	--	--	--	--	--	--
301	60	Aug. 20, 1969	KQ	19	--	131	7.4	17 1/	--	406	17	25	.3	8.6	--	425	358	9	.4	.00	720	7.4
4 401	1,600	June 25, 1965	Kea	38	--	405	221	1,810	70	--	4,050	--	--	--	--	7,898	1,940	66	18	--	8,780	7.1
43-101	3,507	July 27, 1939	Kea	--	--	585	117	86 1/	--	256	1,726	31	--	--	--	2,723	1,942	--	--	--	--	--
4 50-301	190	June 25, 1965	Kbo	22	--	296	30	204	2.0	326	665	213	--	58	--	1,747	860	34	3.0	--	2,260	7.6
4 71-03-101	1,100	Mar. 21, 1950	Kea,Kgr	16	--	141	71	66	3.5	230	452	80	--	.6	.34	1,030	641	18	--	--	1,370	7.5
301	917	Aug. 12, 1969	Kea	14	--	120	56	61 1/	--	432	181	80	2.5	.0	--	726	530	20	1.2	.00	1,160	7.7
401	1,000	Apr. 18, 1939	Kea	--	--	82	20	5 1/	--	232	70	16	1.0	3/	--	304	287	--	--	--	--	--
402	1,000	July 12, 1961	Kea	--	--	--	--	--	--	234	108	22	--	--	--	--	298	--	--	--	676	7.2
11/ 12/ 402	1,090	Mar. 11, 1969	Kea	15	.03	78	24	12	3.1	238	92	16	1.1	10	.12	368	293	8	.3	.00	607	7.6
801	800	Apr. 18, 1939	Kea	--	--	80	20	2 1/	--	262	41	20	--	3/	--	292	282	--	--	--	--	--
801	800	Aug. 12, 1969	Kea	--	--	76	17	--	--	276	32	13	--	--	--	--	260	--	--	.00	528	7.5
04-801	480	do.	Kea	15	--	144	49	266 1/	--	236	318	430	1.4	7.1	--	1,350	561	51	4.9	.00	2,220	7.6
05-501	480	Aug. 28, 1969	Kea	15	--	61	25	44 1/	--	230	32	79	2.4	13	--	384	255	27	1.2	.00	689	7.3
801	600	do.	Kea	14	.73	50	18	13 1/	--	208	15	23	1.9	5.4	--	242	199	12	.4	.00	445	7.2
06-601	430	July 12, 1961	Kea	--	--	--	--	--	--	224	9	14	--	--	--	--	196	--	--	--	416	7.1
07-301	40	Aug. 16, 1968	KQ	17	--	84	15	10	1.3	316	7.8	14	.4	2.1	--	307	271	7	.3	.00	526	7.1
401	600	Aug. 13, 1969	Kea	16	--	54	17	14 1/	--	223	11	23	.7	9.1	--	255	205	13	.4	.00	451	7.5
701	600	Aug. 22, 1968	Kea	--	--	64	17	--	--	264	13	17	--	--	--	--	230	--	--	.00	475	7.7
4 08-801	Spring	Sept. 16, 1966	Kea	10	--	66	14	7.8	1.2	250	9.6	16	--	8.1	--	244	222	7	.2	--	427	8.0

See footnotes at end of table.

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM Na	SODIUM AND POTASSIUM K	BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
Val Verde County																						
YR-71-11-101	750	Aug. 12, 1969	Kea	15	--	122	40	12	--	260	242	14	1.5	8.0	--	582	469	5	0.2	0.00	861	8.1
401	750	do.	Kea	--	--	72	15	--	--	220	69	16	--	--	--	--	241	--	--	.00	531	8.0
402	1,100	do.	Kea	--	--	65	27	--	--	240	88	18	--	--	--	--	273	--	--	.00	586	7.3
501	1,200	Mar. 13, 1969	Kea,Kgr	12	0.08	148	96	42	--	514	301	80	3.2	.0	--	935	764	11	.7	.00	1,450	7.2
601	885	Apr. 18, 1939	Kea	--	--	103	32	13	--	293	114	39	1.6	[3]	--	447	390	--	--	--	--	--
701	250	Aug. 12, 1969	Kea	15	3.8	70	17	22	--	218	79	19	.5	3.1	--	333	244	16	.6	.00	554	7.3
801	500	Mar. 13, 1969	Kea	13	.37	73	16	10	--	224	53	17	.7	7.4	--	300	248	8	.3	.00	542	7.5
[4] 12-201	380	Feb. 7, 1950	Kea	15	--	125	40	149	3.9	223	268	242	--	1.2	0.12	1,030	475	40	--	--	1,570	7.5
501	Spring	Apr. 18, 1939	Kea	--	--	80	20	22	--	232	44	66	.7	[3]	--	346	282	--	--	--	--	--
501	Spring	July 11, 1961	Kea	--	--	--	--	--	--	214	83	98	--	--	--	--	268	--	--	--	814	7.1
[4] 501	Spring	Mar. 10, 1966	Kea	12	--	78	20	60	20	122	161	100	--	3.7	--	507	275	32	1.6	--	845	7.1
[4] 501	Spring	Jan. 27, 1967	Kea	10	--	81	21	60	1.9	226	88	99	--	5.6	--	492	289	31	1.5	--	828	8.0
[11] [13] 502	393	Aug. 15, 1968	Kea	14	.00	110	30	110	2.5	225	177	183	1.0	6.3	.11	745	398	37	2.4	.00	1,260	7.1
[4] 504	Spring	Aug. 18, 1966	Kea	.00	--	55	34	3.0	3.1	171 [5]	11	8.9	--	1.2	--	175	152	4	.1	--	265	9.3
[4] 504	Spring	Jan. 27, 1967	Kea	4.0	--	54	7.9	11	4.7	168	33	20	--	.6	--	235	166	12	.4	--	398	7.8
13-401	750	Jan. 22, 1970	Kea	--	--	76	16	--	--	266	24	29	--	--	--	--	256	--	--	.00	557	7.4
601	565	July 21, 1939	Kea	--	--	253	75	373	--	256	660	605	.8	[3]	--	2,093	941	--	--	--	--	--
[4] 601	565	May 3, 1967	Kea	12	--	161	65	147	5.5	485	226	251	--	.6	--	1,157	668	32	2.5	--	1,820	8.0
801	1,213	May 5, 1939	Kea	--	--	58	23	33	--	226	44	45	6.2	[3]	--	320	239	--	--	--	--	--
14-201	480	June 16, 1939	Kea	--	--	69	14	7	--	244	12	20	1.1	[3]	--	243	229	--	--	--	--	--
[4] 701	693	June 5, 1965	Kea	11	--	49	12	11	1.8	183	12	16	--	6.2	--	223	173	12	.4	--	377	7.8
[4] 702	640	May 15, 1965	Kea	10	--	68	10	13	.8	210	28	20	--	1.9	--	272	212	11	.4	--	466	8.0
15-201	400	Aug. 13, 1969	Kea	15	--	62	9.3	9.0	--	216	8	14	.7	6.9	--	231	193	9	.3	.00	400	7.4
401	550	Sept. 6, 1939	Kea	--	--	72	14	5	--	256	[2]	11	1.1	[3]	--	231	239	--	--	--	--	--
401	550	Aug. 22, 1968	Kea	--	--	68	10	--	--	242	5.0	6.4	--	--	--	--	211	--	--	.00	407	7.7
[4] 601	725	Jan. 31, 1967	Kea	10	--	65	13	11	1.2	238	16	17	--	6.2	--	259	218	10	.3	--	460	7.9
701	800	Mar. 15, 1961	Kea	--	--	--	--	--	--	151	--	64	--	--	--	--	225	--	--	--	649	7.4
701	800	June 4, 1969	Kea	--	--	112	34	--	--	264	172	94	--	--	--	--	420	--	--	.00	1,010	7.5
901	1,050	June 15, 1939	Kea	--	--	25	14	28	--	183	10	14	.3	[3]	--	181	119	--	--	--	--	--
901	1,050	Jan. 22, 1970	Kea	--	--	66	14	--	--	252	9.8	13	--	--	--	--	222	--	--	.00	451	7.6
16-101	337	July 14, 1961	Kea	--	--	--	--	--	--	212	8.0	12	--	--	--	--	184	--	--	--	388	7.0
401	450	Aug. 13, 1969	Kea	15	--	55	17	10	--	230	13	15	.9	5.2	--	244	207	10	.3	.00	430	7.7
[4] 402	666	Mar. 8, 1966	Kea	10	--	60	9.8	7.4	.8	217	4.8	12	--	6.8	--	230	189	8	.2	--	383	7.7
801	550	Aug. 29, 1939	Kea	--	--	64	6	4	--	214	[3]	11	.1	[3]	--	191	183	--	--	--	--	--
[4] 21-301	800	Feb. 15, 1950	Kea	18	--	64	16	12	1.6	245	17	20	--	9.9	.06	287	228	10	--	--	475	7.6
301	800	Aug. 13, 1969	Kea	15	--	65	15	12	--	248	16	15	.8	7.3	--	268	224	10	.3	.00	467	7.4
[4] 22-601	550	Feb. 6, 1951	Kea	16	--	64	28	20	2.3	245	71	35	--	--	.11	367	276	14	--	--	609	7.8
601	350	Aug. 13, 1969	Kea	14	--	67	35	30	--	260	94	40	3.4	.0	--	411	311	17	.7	.00	658	7.8
[4] 602	460	Nov. 12, 1964	Kea	14	--	66	3.5	8.3	1.6	169	12	16	--	29	--	261	179	9	.3	--	393	7.9
[4] 801	607 [9]	Oct. 12, 1964	Kea	2	--	70	14	121	5.5	88	234	131	--	11	--	667	231	53	3.5	--	1,020	7.9
[4] 801	854 [8]	Oct. 27, 1964	Kea	9	--	61	28	108	3.9	134	208	127	--	1.9	--	674	--	46	2.9	--	1,020	8.0
23-101	610	Aug. 23, 1968	Kea	16	.50	312	101	426	6.7	386	824	665	2.0	30	--	2,570	1,190	44	5.4	.00	3,830	7.1
101	610	Aug. 13, 1969	Kea	--	--	168	48	--	--	326	355	185	--	--	--	--	616	--	--	.00	1,700	7.7

See footnotes at end of table.

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

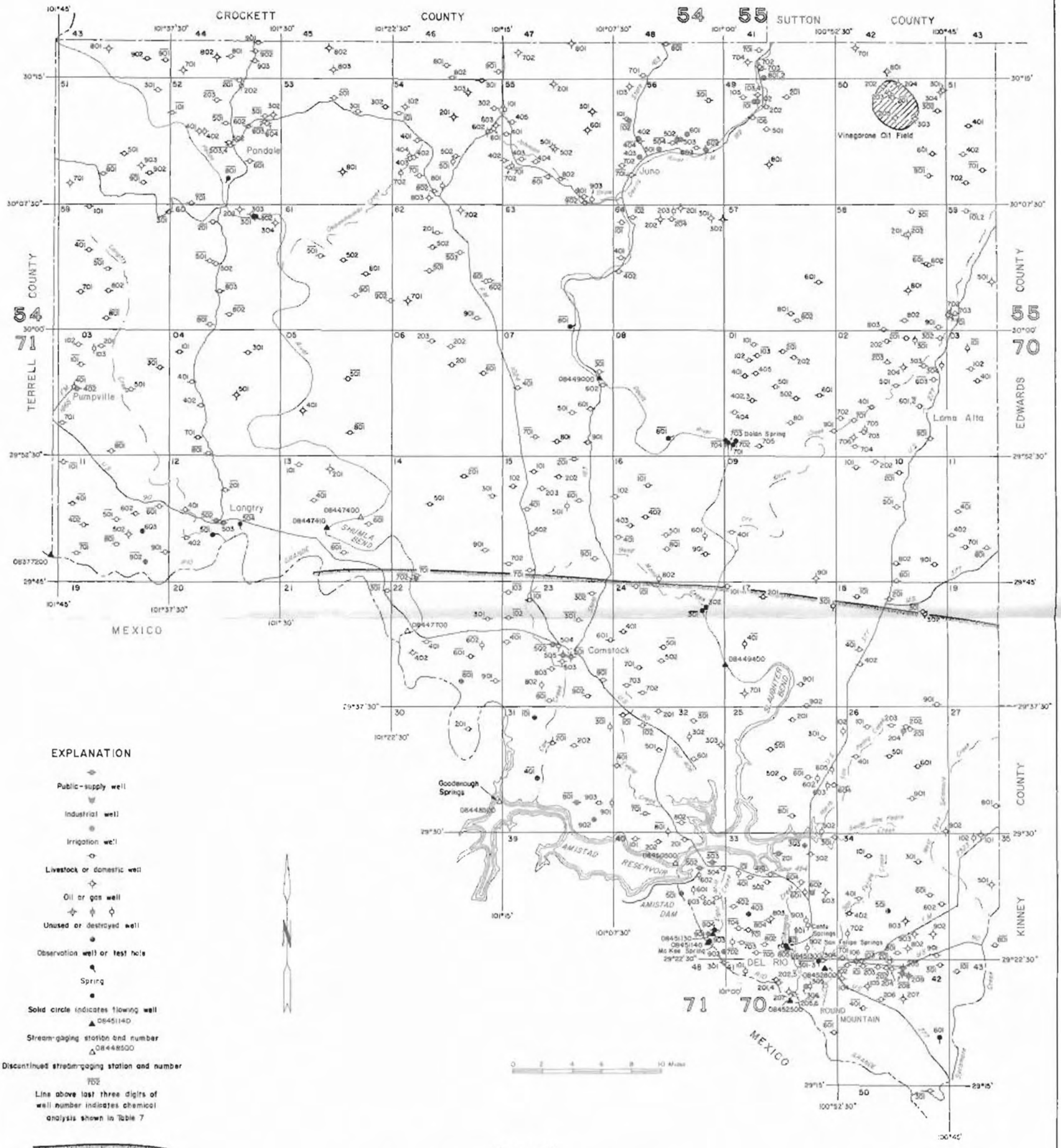
WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM Na	SODIUM AND POTASSIUM K	BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
Val Verde County																						
4 YR-71-23-102	800	Apr. 19, 1968	Kea	10	--	74	29	20	1.6	260	69	37	--	3.7	--	395	303	8	0.5	--	639	7.5
4 103	1,070	Apr. 27, 1968	Kea	12	--	79	19	14	1.5	268 5	45	25	--	6.8	--	353	275	10	.4	--	563	8.3
4 301	967	Apr. 12, 1950	Kea	20	--	72	26	23	1.6	275	45	39	--	6.2	0.11	382	284	15	--	--	627	7.6
302	1,160	Jan. 21, 1970	Kea	--	--	84	23	--	--	296	63	38	--	--	--	--	304	--	--	0.00	676	7.3
501	401	July 11, 1961	Kea	--	--	--	--	--	--	222	39	32	--	--	--	--	238	--	--	--	550	7.0
4 502	570	Sept. 3, 1965	Kea	12	--	60	13	9.0	1.2	229	8.6	16	--	7.4	--	252	205	9	.3	--	429	7.9
13 502	570	Aug. 27, 1969	Kea	17	0.02 7	62	14	9.2	1.3	240	9.8	14	0.5	5.4	.8	251	212	9	.3	.00	433	7.2
801	320	Aug. 13, 1969	Kea	--	--	72	26	--	--	244	79	19	--	--	--	--	286	--	--	.00	585	7.7
901	690	July 24, 1939	Kea	--	--	70	15	5 1/	--	262	10	13	--	3	--	242	234	--	--	--	--	--
4 901	690	Mar. 30, 1950	Kea	18	--	66	14	10	1.6	256	12	14	--	11	.05	272	223	9	--	--	455	7.7
4 902	500	Feb. 15, 1965	Kea	10	--	67	14	34	2.0	247	46	31	--	8.1	--	363	244	25	1.0	--	593	8.2
4 24-101	--	Jan. 31, 1967	Kea	10	--	65	9.2	9.9	1.2	225	12	16	--	6.2	--	248	200	10	.3	--	425	7.9
301	Spring	July 18, 1939	Kea	--	--	65	12	8 1/	--	244	2	11	.2	3	--	231	213	--	--	--	--	--
4 501	731	Sept. 13, 1966	Kea	9	--	65	28	12	.4	278	47	21	--	.6	--	336	277	8	.3	--	529	8.1
4 31-101	582 9	June 12, 1965	Kea	12	--	64	19	17	.4	183	43	18	--	--	--	260	189	16	.5	--	430	8.0
4 101	871 8	June 24, 1965	Kea	11	--	66	16	15	1.2	238	29	25	--	3.7	--	304	232	12	.4	--	505	7.6
201	580	Apr. 12, 1939	Kea	--	--	69	13	11 1/	--	262	15	15	--	3	--	252	218	--	--	--	--	--
4 301	715 9	July 8, 1965	Kea	15	--	56	18	17	1.2	207	32	34	--	3.7	--	279	215	15	.5	--	490	7.9
4 301	1,000 8	July 19, 1965	Kea	9	--	54	21	21	2.0	217	45	33	--	1.2	--	286	224	17	.6	--	522	8.1
4 401	496 9	Dec. 17, 1964	Kea	10	--	70	12	12	1.6	257	9.1	18	--	5.0	--	299	224	10	.3	--	476	8.0
4 401	920 8	Feb. 4, 1965	Kea	8	--	63	10	6.9	2.4	220	7.2	13	--	9.9	--	238	200	7	.2	--	424	7.9
801	410	Aug. 14, 1969	Kea	25	--	102	9.0	89 1/	--	250	152	86	.6	.3	--	587	292	40	2.3	.00	917	7.9
32-101	640	July 24, 1939	Kea	--	--	83	11	32 1/	--	250	26	63	--	3	--	338	252	--	--	--	--	--
102	650	do.	Kea	--	--	65	13	6 1/	--	238	11	18	.6	3	--	230	218	--	--	--	--	--
201	525	do.	Kea	--	--	108	15	20 1/	--	293	48	59	--	3	--	394	329	--	--	--	--	--
301	620	July 20, 1939	Kea	--	--	83	18	18 1/	--	256	56	18	1.6	3	--	311	281	--	--	--	--	--
301	620	--	Kea	--	--	63	14	--	--	232	18	14	--	--	--	--	215	--	--	.00	444	7.6
401	525	Aug. 1, 1939	Kea	--	--	66	15	3 1/	--	232	16	17	--	3	--	231	224	--	--	--	--	--
401	525	Aug. 14, 1969	Kea	15	--	65	12	9.9 1/	--	236	14	14	.5	5.1	--	252	212	9	.3	.00	440	7.5
701	451	Aug. 1, 1939	Kea	--	--	80	6	2 1/	--	244	10	13	.4	3	--	--	--	--	--	--	--	--
801	650	do.	Kea	--	--	74	10	11 1/	--	262	11	16	.4	3	--	251	226	--	--	--	--	--
13 40-302	455	Jan. 26, 1967	Kea	30	--	100	7.3	48	.9	280	34	63	.7	29	.30	451	280	27	1.2	.00	743	7.1
302	455	May 22, 1969	Kea	--	--	--	--	--	--	216	19	24	--	--	--	--	--	--	--	--	524	7.8
4 303	480	Oct. 24, 1964	Kea	11	--	35	4.4	13	1.2	114	8.6	24	--	3.1	--	184	105	21	.5	--	281	8.0
4 303	480	July 22, 1968	Kea	16	--	105	1.9	12	.8	293	10	18	--	26	--	354	270	9	.3	--	569	7.6
303	480	May 19, 1969	Kea	--	--	--	--	--	--	--	82	29	--	--	--	--	--	--	--	--	607	--
13 14 303	480	Aug. 22, 1969	Kea	18	.03 7	88	8.7	49	2.7	254	93	46	.6	1.0	.12	432	256	29	1.3	.00	701	7.0
4 501	425 9	June 3, 1964	Kea	12	--	76	20	11	1.6	175 5	122	20	--	.6	--	390	274	--	.3	--	565	8.2
4 501	761 8	June 19, 1964	Kea	10	--	53	14	21	.4	146 5	84	21	--	1.2	--	298	191	--	.7	--	471	8.2
4 901	373 9	Mar. 22, 1965	Kea	9	--	584	43	12	1.6	104	1,515	14	--	--	--	2,406	1,633	2	.1	--	2,380	7.5
4 901	373 9	May 31, 1965	Kea	10	--	610	39	12	2.0	198	1,500	15	--	--	--	2,462	1,681	2	.1	--	2,430	7.4
4 901	373 9	July 22, 1968	Kea	11	--	605	45	12	2.0	174	1,516	21	--	.6	--	2,459	1,696	2	.1	--	2,390	7.2
4 901	373 9	Sept. 19, 1968	Kea	12	--	607	42	12	1.6	195	1,496	18	--	3.1	--	2,479	1,688	--	.1	--	2,500	7.3

See footnotes at end of table.

Table 7.--Chemical Analyses of Water from Wells and Springs in Val Verde and Kinney Counties--Continued

WELL	SAMPLING DEPTH OR DEPTH OF WELL (FEET)	DATE OF COLLECTION	WATER-BEARING UNIT	SILICA (SiO_2)	IRON (Fe)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM		BICARBONATE (HCO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (NO_3)	BORON (B)	DISSOLVED SOLIDS	HARDNESS AS $CaCO_3$	PERCENT SODIUM	SODIUM ADSORPTION RATIO (SAR)	RESIDUAL SODIUM CARBONATE (RSC)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C)	pH
								NA	K													
Val Verde County																						
4/ YR-71-40-901	753 8/	Apr. 1, 1965	Kea	10	--	566	27	27	2.0	186	1,347	34	--	0.6	--	2,275	1,524	4	0.3	--	2,260	7.9
4/ 901	753 8/	May 31, 1965	Kea	10	--	644	36	12	1.6	189	1,558	15	--	--	--	2,529	1,755	2	.1	--	2,500	7.3
4/ 901	753 8/	July 22, 1968	Kea	11	--	649	28	12	1.6	189	1,518	23	--	--	--	2,519	1,733	2	.1	--	2,450	7.4
4/ 901	753 8/	Sept. 19, 1968	Kea	13	--	646	33	13	1.6	177	1,575	18	--	1.2	--	2,558	1,752	--	.1	--	2,540	7.3
4/ 903	Spring	Feb. 9, 1966	Kea	10	--	129	10	9.9	1.2	192	184	23	--	5.6	--	498	363	6	.2	--	711	7.7
4/ 903	Spring	May 11, 1966	Kea	10	--	129	10	11	23	238	156	21	--	6.2	--	489	365	6	.2	--	706	7.8
4/ 903	Spring	Sept. 21, 1966	Kea	8	--	132	92	11	1.2	237 5/	163	21	--	3.1	--	497	369	6	.2	--	688	8.6
904	520	Apr. 10, 1939	Kea	--	--	610	27	9 1/	--	134	1,456	20	--	3/	--	2,188	1,636	--	--	--	--	--
4/ 904	520	Apr. 25, 1950	Kea	26	--	647	33	13 1/	--	207	1,530	5	2.4	--	--	2,578	1,751	2	--	--	2,510	7.2
4/ 904	520	Mar. 14, 1966	Kea	11	--	643	32	12	1.6	177	1,548	18	--	--	--	2,504	1,736	2	.1	--	2,440	7.3
Kinney County																						
RP-70-35-801	80	Aug. 5, 1968	Kbu	--	--	122	12	--	--	268	75	151	--	--	--	--	354	--	--	0.00	1,010	7.3

1/ Where one value is present, sodium and potassium are calculated as sodium (Na).
2/ Sulfate (SO_4) less than 10 milligrams per liter.
3/ Nitrate (NO_3) less than 20 milligrams per liter.
4/ Analyzed by U.S. Salinity Laboratory.
5/ Includes the equivalent of any carbonate (CO_3) present.
6/ Residue at 180°.
7/ Iron in solution.
8/ Sample collected at this depth was from Edwards Limestone.
9/ Sample collected at this depth was from Georgetown Limestone.
10/ Sample collected at this depth was from Kiamichi Formation.
11/ Determination for phosphate (PO_4) is 0.00.
12/ Determination for manganese (Mn) is 0.03.
13/ Determination for manganese (Mn) is 0.00.
14/ Determination for manganese (Mn) is 0.23.



EXPLANATION

- Public-supply well
- Industrial well
- Irrigation well
- Livestock or domestic well
- Oil or gas well
- Unused or destroyed well
- Observation well or test hole
- Spring
- Solid circle indicates flowing well
- ▲ 08451140 Stream-gaging station and number
- △ 08448500 Discontinued stream-gaging station and number
- 702 Line above last three digits of well number indicates chemical analysis shown in Table 7
- Kiamichi Formation absent or unrecognized north of this line

Figure 18
Locations of Wells, Springs, and Streamflow Stations in Val Verde and Kinney Counties