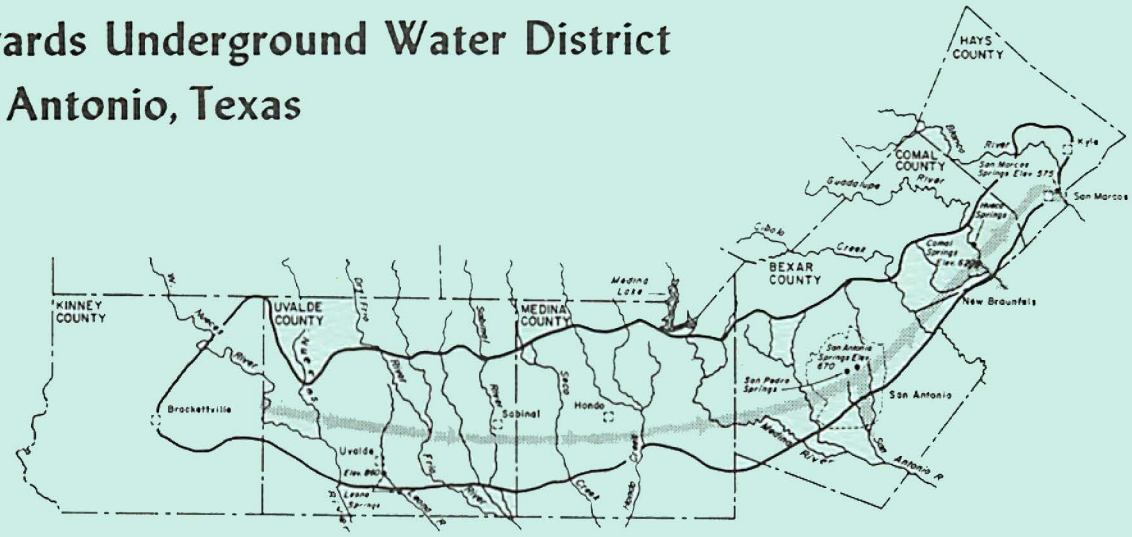
Records of Ground-Water Recharge, Discharge, Water Levels, and Chemical Quality of Water for the Edwards Aquifer in the San Antonio Area, Texas, 1934-78.

Bulletin 38

Edwards Underground Water District
San Antonio, Texas



Prepared in Cooperation with the U. S. Geological Survey and the Texas Department of Water Resources

EDWARDS UNDERGROUND WATER DISTRICT

1200 Tower Life Building
San Antonio, Texas 78205

BULLETIN 38

RECORDS OF GROUND-WATER RECHARGE AND DISCHARGE, 1934-78; WATER LEVELS, 1975-78; AND CHEMICAL QUALITY OF WATER, 1977-78, FOR THE EDWARDS AQUIFER IN THE SAN ANTONIO AREA, TEXAS

Compiled by

R. D. Reeves, R. W. Maclay,
K. C. Grimm, and M. F. Davis
U.S. Geological Survey

Prepared by the U.S. Geological Survey in cooperation
with the Edwards Underground Water District,
the City Water Board of San Antonio, and
the Texas Department of Water Resources

July 1980

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ABSTRACT

The average annual ground-water recharge to the Edwards aquifer in the San Antonio area, Texas, from 1934 through 1978 was 587,200 acre-feet. The recharge in 1978 was 502,500 acre-feet, ending a trend of above average recharge that began in 1968. A maximum annual recharge of 1,711,200 acre-feet occurred in 1958, and a minimum annual recharge of 43,700 acre-feet occurred in 1956.

A maximum annual discharge of 960,900 acre-feet occurred in 1977, and a minimum annual discharge of 388,800 acre-feet occurred in 1955. The maximum annual discharge by wells was 431,800 acre-feet in 1978, which is a record high for the 1934-78 period.

Although water levels in wells in the Edwards aquifer showed a general decline in 1978, the volume of ground water in storage in the aquifer was above average.

Analyses of water samples from 72 wells and 3 springs show no evidence of significant degradation of water quality in the Edwards aquifer, and the data show no trend of degradation in water quality.

INTRODUCTION

Compilation of the records of ground-water recharge, discharge, water levels, and water quality for the Edwards aquifer in the San Antonio area, Texas, is part of a continuing investigation by the U.S. Geological Survey in cooperation with the Edwards Underground Water District, the City Water Board of San Antonio, and the Texas Department of Water Resources. A compilation of recharge, discharge, water-level, and water-quality records will be published annually to provide for a more timely release of data.

The calculations of annual recharge are based on data collected from a network of stream-gaging stations and on assumptions that relate the runoff characteristics of gaged areas to ungaged areas (Puente, 1978). The basic approach is a water-balance equation, in which recharge within a stream basin is the difference between measured streamflow above and below the infiltration area plus the estimated runoff within the infiltration area. Hydrologic features in the San Antonio area are shown on figure 1, and the drainage basins and data-collection sites are shown on figure 2.

Annual discharge is compiled from: (1) Data collected by the Texas Department of Water Resources on pumpage for municipal, military, and industrial use; (2) calculations of pumpage for irrigation as determined from records of power consumption and irrigated acreage; and (3) U.S. Geological Survey records of springflow at points of discharge.

Periodic measurements have been made in observation wells in the Edwards aquifer since 1929 to determine changes in ground-water storage in the aquifer. The first continuous water-stage recorders were installed on some observation wells in the late 1930's. During 1978, periodic water-level measurements were made in 16 wells, and continuous water-stage recorders were in operation on 18 wells.

Previous and Related Studies

In 1968, the Geological Survey, in cooperation with the Texas Department of Water Resources and the Edwards Underground Water District, began a continuing program to collect historical-reference data for detecting pollution and for determining changes in the quality of water in the Edwards aquifer. The results of the study from August 1968 to August 1969 were reported by Reeves and Blakey (1970), and the results from August 1968 to April 1972 were reported by Reeves, Rawson, and Blakey (1972). The results of the study from its outset in August 1968 to January 1975 were reported by Reeves (1976). A compilation of water-quality data for February 1975 to September 1977 was reported by Reeves (1978).

In related studies, the Geological Survey, in cooperation with the Texas Department of Water Resources, has collected data since 1969 on the quality of urban runoff in San Antonio. Water-quality data collected in the urban study have been reported by Schulze, Dupuy, and Manigold (1970), Dupuy and Schulze (1972), Schulze, Dupuy, and McPherson (1973), and Rawson (1974). Water-quality data collected in the urban study have also been reported in an annual series of hydrologic-data reports by Land (1971-72), Steger (1973-75), Gonzalez (1976), Harmsen (1977), and Perez and Harmsen (1980).

Previous reports on recharge, discharge, water levels, and water quality for the Edwards aquifer are given in the list of references.

Well-Numbering System

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

Only the last three digits of the well number are shown at each water-quality data-collection site; the first four digits are shown in the northwest corner of each 7-1/2-minute quadrangle.

In addition to the seven-digit well number, a two-letter prefix is used to identify the county. The prefix for counties where wells were sampled are as follows: AY, Bexar; DX, Comal; LR, Hays; TD, Medina; and YP, Uvalde.

Each water-level observation well is also identified by a 15-digit number based on latitude and longitude, and by a local number that is provided for continuity with older reports. The first 6 digits of the 15-digit number are degrees, minutes, and seconds of north latitude; the next 7 digits are degrees (including a leading 0 for those less than 100), minutes, and seconds of west longitude; and the final 2 digits are sequential numbers assigned in the order in which the wells are established in that 1-second quadrangle. The second 7-digit number is the State well number. Where there is a number inside parentheses, it is a number assigned to the well in some publication prior to 1978.

PRECIPITATION

The annual and long-term average precipitation at selected stations in the San Antonio area for 1975-78 are given in table 1. Annual rainfall during 1975-76 was above average at most of the stations in the San Antonio area, partly because of significant storms in April and May 1975 and July and October 1976. Annual rainfall during 1977-78 was below average at most of the stations.

GROUND-WATER RECHARGE

The calculated annual recharge in basins during 1934-78 and the average annual recharge for 1934-78 are given in table 2. Recharge in the Guadalupe River basin is not included because the amount of net recharge to the aquifer is not significant. The total recharge during 1978 was below average, ending a trend of above-average recharge that began in 1968. However, intense rainfall produced by remnants of tropical storm Amelia in Bandera, Kendall, and Kerr Counties during August 1-4, 1978, resulted in above average recharge in the areas between the Sabinal River and Medina River basins and in Medina Lake basin (Schroeder, Massey, and Waddell, 1979).

The annual recharge during 1934-78 ranged from 43,700 acre-feet in 1956 to 1,711,200 acre-feet in 1958. The average annual recharge for 1934-78 was 587,200 acre-feet. Recharge in 1978 was 502,500 acre-feet.

GROUND-WATER DISCHARGE

The calculated discharge, by county, from the Edwards aquifer during 1934-78 is given in table 3. The calculated discharge by county and by water use during 1978 is given in table 4.

The discharge from springs was from San Marcos Springs in Hays County, Comal Springs in Comal County, San Antonio and San Pedro Springs in Bexar County, and Leona River Springs in Uvalde County. The calculated discharge from Leona River Springs includes underflow in the gravel underlying the springs.

The major discharge from wells was in Bexar, Uvalde, and Medina Counties, while the major springflow was from Comal and Hays Counties. Many wells in Bexar County supplied water for municipal and military use. Other wells in Bexar County and most of the large wells in Uvalde and Medina Counties supplied water for irrigation of about 90,000 acres in 1978. The remaining discharge, principally from wells in Bexar County, was for industrial use, domestic supply, and miscellaneous uses.

The calculated total discharge from wells and springs in 1978 was 807,300 acre-feet (table 4). The discharge from wells was 431,800 acre-feet, which is a record high for 1934-78. About 53 percent of the total discharge was from wells, and approximately 57 percent of this amount was discharged from wells in Bexar County. The discharge from wells in 1978 was 13 percent more than in 1977, while springflow decreased by about 35 percent. The total discharge from wells and springs in 1978 was about 16 percent less than in 1977 and about 38 percent more than the average discharge for 1934-77.

The relationship between accumulated recharge and discharge for 1934-78 is shown on figure 3.

WATER LEVELS AND GROUND-WATER STORAGE

Water levels have been measured periodically in selected observation wells in the Edwards aquifer since 1929 to determine changes in ground-water storage. In the late 1930's, continuous water-level recorders were installed on some of the observation wells.

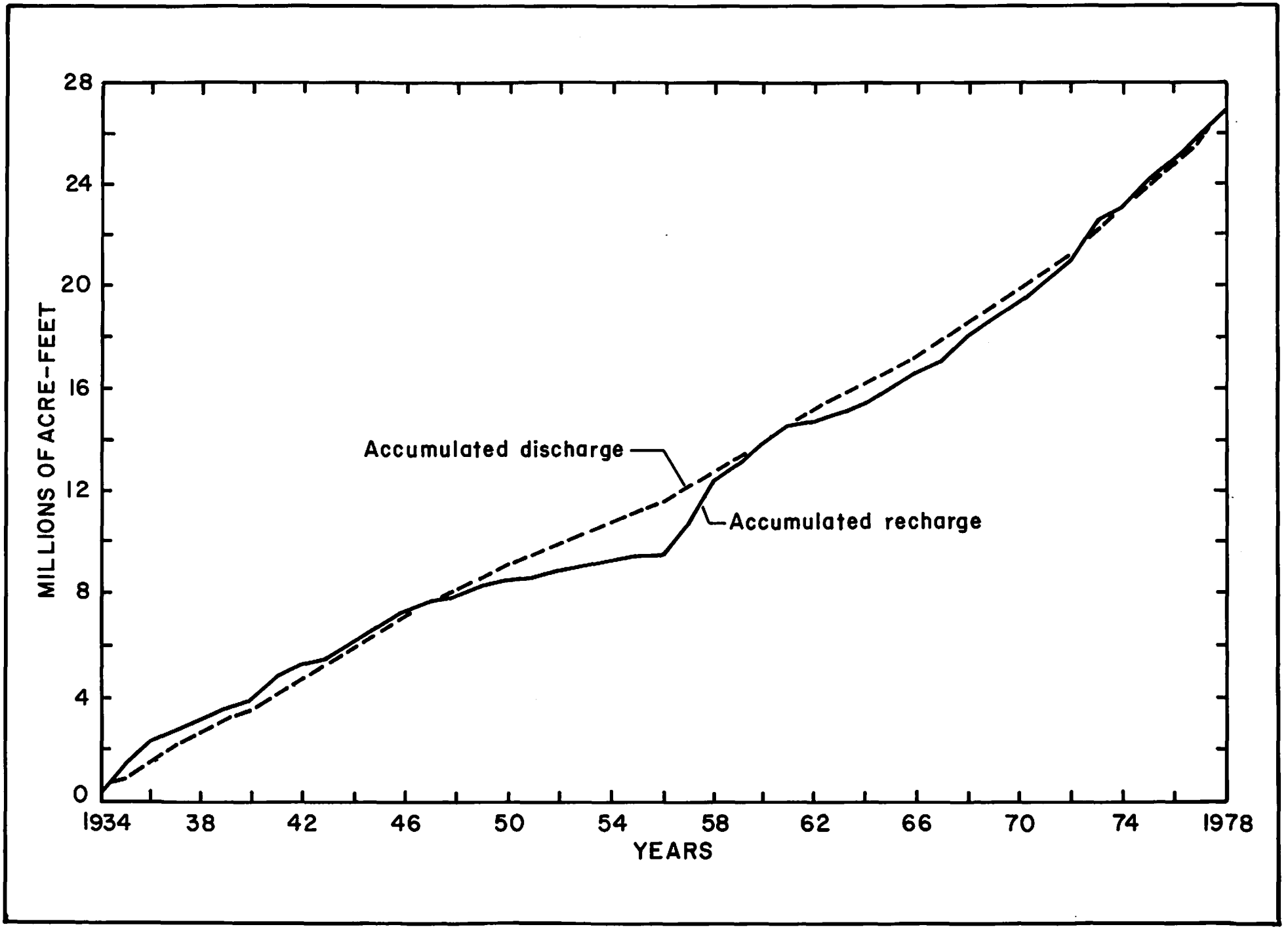

FIGURE 3.-Accumulated recharge and discharge, 1934-78

Water levels in wells fluctuate chiefly in response to changes in ground-water storage in the aquifer. When recharge is greater than discharge, water levels rise and the flow of the springs increases; when discharge is greater than recharge, water levels decline and springflow decreases. In general, the water levels are lowest during summer because of the increased withdrawals from wells.

The annual high and low water levels recorded in five selected observation wells in the artesian part of the aquifer during 1975-78 are given in table 5. The water levels in observation wells in 1978 are given in table 6. Although the general trend in 1978 has been downward, reflecting below normal rainfall throughout the area and increased withdrawals from the aquifer, the volume of ground-water in storage in the aquifer was above average.

During 1978, 16 wells were measured periodically, and continuous recorders were in operation on 18 wells (fig. 2). Water levels in an additional 80 wells are measured annually in the San Antonio area by personnel of the Texas Department of Water Resources. Tabulations of current and historical water-level measurements are available on computer printouts from the Texas Department of Water Resources in Austin, Texas. The computer printouts are also on file in the office of the U.S. Geological Survey in San Antonio, Texas.

Water-level measurements are reported in feet below land-surface datum (lsd) unless otherwise indicated. Water levels above land surface are indicated by a plus (+) sign. Water levels in wells equipped with recorders are reported every fifth day and at the end of the month (eom). If known, the altitude of the land surface above the National Geodetic Vertical Datum of 1929 (NGVD) is given in the well description.

WATER QUALITY

The water-quality data-collection sites are shown on figure 4, which also shows the sites for which data are given in Reeves (1976, 1978). Although some of the wells are no longer in use, additional samples can be collected at most of the sites to detect any deterioration in water quality.

The results of the analyses of water samples from 72 wells and 3 springs in the Edwards aquifer collected from October 1977 to September 1978 are given in table 7. The samples were analyzed for more than 50 properties or constituents, most of which affect the suitability of the water for domestic use. The analyses included determination of the concentrations of bacteria; major inorganic constituents; minor elements, including heavy metals; and pesticides.

Analyses of samples from the wells and springs show that there is no evidence of significant degradation of water quality in the Edwards aquifer, and the data show no trend of degradation in water quality.

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Table 1.--Annual and long-term average precipitation at selected stations, 1975-1978 [1]

Station	Precipitation (inches)				Long-term average	
	1975	1976	1977	1978	Inches	Years of record
Brackettville	26.62	34.40	15.06	19.04	20.82	87
Uvalde	24.92	46.04	19.90	18.48	24.65	75
Sabinal	23.65	40.82	17.06	21.28	25.81	55
Hondo	--	45.21	19.40	24.64	28.85	72
San Antonio	25.67	39.13	29.64	35.99	28.24	100
Boerne	33.49	45.24	32.43	35.17	33.09	82
New Braunfels	35.82	49.06	24.83	37.79	31.66	83
San Marcos	48.64	47.46	27.69	33.08	33.44	76

[1] Precipitation data from the U.S. Department of Commerce (1975-78).

Table 2.--Calculated annual recharge to the Edwards aquifer by basin, 1934-78
(in thousands of acre-feet)

Calendar year	Nueces-West Nueces River Basin	Frio-Dry Frio River basin[1]	Sabinal River basin[1]	Area between Sabinal River and Medina River basins[1]	Medina Lake	Area between Cibolo Creek and Medina River basins[1]	Cibolo-Dry Comal Creek basin	Blanco River basin[1]	Total
1934	8.6	27.9	7.5	19.9	46.5	21.0	28.4	19.8	179.6
1935	411.3	192.3	56.6	166.2	71.1	138.2	182.7	39.8	1,258.2
1936	176.5	157.4	43.5	142.9	91.6	108.9	146.1	42.7	909.6
1937	28.8	75.7	21.5	61.3	80.5	47.8	63.9	21.2	400.7
1938	63.5	69.3	20.9	54.1	65.5	46.2	76.8	36.4	432.7
1939	227.0	49.5	17.0	33.1	42.4	9.3	9.6	11.1	399.0
1940	50.4	60.3	23.8	56.6	38.8	29.3	30.8	18.8	308.8
1941	89.9	151.8	50.6	139.0	54.1	116.3	191.2	57.8	850.7
1942	103.5	95.1	34.0	84.4	51.7	66.9	93.6	28.6	577.8
1943	36.5	42.3	11.1	33.8	41.5	29.5	58.3	20.1	273.1
1944	64.1	76.0	24.8	74.3	50.5	72.5	152.5	46.2	560.9
1945	47.3	71.1	30.8	78.6	54.8	79.6	129.9	35.7	527.8
1946	80.9	54.2	16.5	52.0	51.4	105.1	155.3	40.7	556.1
1947	72.4	77.7	16.7	45.2	44.0	55.5	79.5	31.6	422.6
1948	41.1	25.6	26.0	20.2	14.8	17.5	19.9	13.2	178.3
1949	166.0	86.1	31.5	70.3	33.0	41.8	55.9	23.5	508.1
1950	41.5	35.5	13.3	27.0	23.6	17.3	24.6	17.4	200.2
1951	18.3	28.4	7.3	26.4	21.1	15.3	12.5	10.6	139.9
1952	27.9	15.7	3.2	30.2	25.4	50.1	102.3	20.7	275.5
1953	21.4	15.1	3.2	4.4	36.2	20.1	42.3	24.9	167.6
1954	61.3	31.6	7.1	11.9	25.3	4.2	10.0	10.7	162.1
1955	128.0	22.1	.6	7.7	16.5	4.3	3.3	9.5	192.0
1956	15.6	4.2	1.6	3.6	6.3	2.0	2.2	8.2	43.7
1957	108.6	133.6	65.4	129.5	55.6	175.6	397.9	76.4	1,142.6
1958	266.7	300.0	223.8	294.9	95.5	190.9	268.7	70.7	1,711.2
1959	109.6	158.9	61.6	96.7	94.7	57.4	77.9	33.6	690.4
1960	88.7	128.1	64.9	127.0	104.0	89.7	160.0	62.4	824.8
1961	85.2	151.3	57.4	105.4	88.3	69.3	110.8	49.4	717.1
1962	47.4	46.6	4.3	23.5	57.3	16.7	24.7	18.9	239.4
1963	39.7	27.0	5.0	10.3	41.9	9.3	21.3	16.2	170.7
1964	126.1	57.1	16.3	61.3	43.3	35.8	51.1	22.2	413.2
1965	97.9	83.0	23.2	104.0	54.6	78.8	115.3	66.7	623.5
1966	169.2	134.0	37.7	78.2	50.5	44.5	66.5	34.6	615.2
1967	82.2	137.9	30.4	64.8	44.7	30.2	57.3	19.0	466.5
1968	130.8	176.0	66.4	198.7	59.9	83.1	120.5	49.3	884.7
1969	119.7	113.8	30.7	84.2	55.4	60.2	99.9	46.6	610.5
1970	112.6	141.9	35.4	81.6	68.0	68.8	113.8	39.5	661.6
1971	263.4	212.4	39.2	155.6	68.7	81.4	82.4	22.2	925.3
1972	108.4	144.6	49.0	154.6	87.9	74.3	104.2	33.4	756.4
1973	190.6	256.9	123.9	286.4	97.6	237.2	211.7	82.2	1,486.5
1974	91.1	135.7	36.1	115.3	96.2	68.1	76.9	39.1	658.5
1975	71.8	143.6	47.9	195.9	93.4	138.8	195.7	85.9	973.0
1976	150.7	238.6	68.2	182.0	94.5	47.9	54.3	57.9	894.1
1977	102.9	193.0	62.7	159.5	77.7	97.9	191.6	66.7	952.0
1978	69.8	73.1	30.9	103.7	76.7	49.6	72.4	26.3	502.5
AVERAGE	102.6	103.4	36.7	90.1	57.6	64.5	96.6	35.7	[2]587.2

[1] Includes recharge from gaged and ungaged areas within the basin.

[2] Average totals may not be identical because of rounding procedures.

Table 3.--Calculated annual discharge from the Edwards aquifer by county, 1934-78
(in thousands of acre-feet)

Year	Kinney-Uvalde Counties	Medina County	Bexar County	Comal County	Hays County	Total	Total spring discharge	Total well discharge
1934	12.6	1.3	109.3	229.1	85.6	437.9	336.0	101.9
1935	12.2	1.5	171.8	237.2	96.9	519.6	415.9	103.7
1936	26.6	1.5	215.2	261.7	93.2	598.2	485.5	112.7
1937	28.3	1.5	201.8	252.5	87.1	571.2	451.0	120.2
1938	25.2	1.6	187.6	250.0	93.4	557.8	437.7	120.1
1939	18.2	1.6	122.5	219.4	71.1	432.8	313.9	118.9
1940	16.1	1.6	116.7	203.8	78.4	416.6	296.5	120.1
1941	17.9	1.6	197.4	250.0	134.3	601.2	464.4	136.8
1942	22.5	1.7	203.2	255.1	112.2	594.7	450.1	144.6
1943	19.2	1.7	172.0	249.2	97.2	539.3	390.2	149.1
1944	11.6	1.7	166.3	252.5	135.3	567.4	420.1	147.3
1945	12.4	1.7	199.8	263.1	137.8	614.8	461.5	153.3
1946	6.2	1.7	180.1	261.9	134.0	583.9	428.9	155.0
1947	13.8	2.0	193.3	256.8	127.6	593.5	426.5	167.0
1948	9.2	1.9	159.2	203.0	77.3	450.6	281.9	168.7
1949	13.2	2.0	165.3	209.5	89.8	479.8	300.4	179.4
1950	17.8	2.2	177.3	191.1	78.3	466.7	272.9	193.8
1951	16.9	2.2	186.9	150.5	69.1	425.6	215.9	209.7
1952	22.7	3.1	187.1	133.2	78.8	424.9	209.5	215.4
1953	27.5	4.0	193.7	141.7	101.4	468.3	238.5	229.8
1954	26.6	6.3	208.9	101.0	81.5	424.3	178.1	246.2
1955	28.3	11.1	215.2	70.1	64.1	388.8	127.8	261.0
1956	59.6	17.7	229.6	33.6	50.4	390.9	69.8	321.1
1957	29.0	11.9	189.4	113.2	113.0	456.5	219.2	237.3
1958	23.7	6.6	199.5	231.8	155.9	617.5	398.2	219.3
1959	43.0	8.3	217.5	231.7	118.5	619.0	384.5	234.5
1960	53.7	7.6	215.4	235.2	143.5	655.4	428.3	227.1
1961	56.5	6.4	230.3	249.5	140.8	683.5	455.3	228.2
1962	64.6	8.1	220.0	197.5	98.8	589.0	321.1	267.9
1963	51.4	9.7	217.3	155.7	81.9	516.0	239.6	276.4
1964	49.3	8.6	201.0	141.8	73.3	474.0	213.8	260.2
1965	46.8	10.0	201.1	194.7	126.3	578.9	322.8	256.1
1966	48.5	10.4	198.0	198.9	115.4	571.2	315.3	255.9
1967	81.1	15.2	239.7	139.1	82.3	557.4	216.1	341.3
1968	58.0	9.9	207.1	238.2	146.8	660.0	408.3	251.7
1969	88.5	13.6	216.3	218.2	122.1	658.7	351.2	307.5
1970	100.9	16.5	230.6	229.2	149.9	727.1	397.7	329.4
1971	117.0	32.4	262.8	168.2	99.1	679.5	272.7	406.8
1972	112.6	28.8	247.7	234.3	123.7	747.1	375.8	371.3
1973	96.5	14.9	273.0	289.3	164.3	838.0	527.6	310.4
1974	133.3	28.6	272.1	286.1	141.1	861.2	483.8	377.4
1975	112.0	22.6	259.0	296.0	178.6	868.2	540.4	327.8
1976	136.4	19.4	253.2	279.7	164.7	853.4	503.9	349.5
1977	156.5	19.9	317.5	295.0	172.0	960.9	580.3	380.6
1978	154.3	38.7	269.5	245.7	99.1	807.3	375.5	431.8

Table 4.--Calculated discharge from the Edwards aquifer by county and by water use, 1978

County	Springs	Municipal supply and military use	Irrigation	Industrial Use	Domestic supply, stock, and miscellaneous use	Total (million gallons per day)	Total (thousand acre-feet per year)
	million gallons per day						
Kinney	--	--	--	--	0.2	0.2	0.2
Uvalde	28.3	4.5	102.2	--	2.6	137.6	154.1
Medina	--	3.0	30.9	--	.6	34.5	38.7
Bexar	20.3	168.2	13.8	8.9	29.4	240.6	269.5
Comal	208.4	8.6	.3	1.4	.6	219.3	245.7
Hays	78.2	6.9	.8	--	2.6	88.5	99.1
Total (million gallons per day)	335.2	191.2	148.0	10.3	36.0	720.7	
Total (thousand acre-feet per year)	375.5	214.2	165.8	11.5	40.3		807.3

Table 5.--Annual high and low water levels in selected observation wells in the Edwards aquifer, 1975-78

(Feet above National Geodetic Vertical Datum of 1929[1])

Well	1975		1976		1977		1978		Record high	Record low	Period of record
	High	Low	High	Low	High	Low	High	Low			
YP-69-50-302[2] H-5-1 (Uvalde Co.)	881.48	879.45	884.98	876.02	886.26	881.36	882.61	875.67	886.26 May 1977	811.0 Apr. 1957	1929-32 1934-78
TD-68-41-301[2] J-1-82 (Medina Co.)	720.79	707.46	732.32	694.84	737.78	715.65	722.36	681.62	737.78 May 1977	622.3 Aug. 1956	1950-78
AY-68-37-203[2] J-17[3] (Bexar Co.)	686.99	671.99	693.09	663.76	695.95	675.63	684.11	650.13	696.5 Oct. 1973	[4]612.5 Aug. 1956	1932-78 [5]
DX-68-23-302[2] G-49 (Comal Co.)	628.50	626.50	629.38	625.76	630.15	627.61	628.05	624.52	630.17 Apr. 1977	613.3 Aug. 1956	1948-78
LR-67-01-304[2] H-23 (Hays Co.)	589.85	571.42	584.55	571.20	587.95	567.80	572.00	540.40	593.8 Mar. 1968	540.4 July 1978	1937-78

[1] The National Oceanic and Atmospheric Administration has adopted "National Geodetic Vertical Datum of 1929" (NGVD) to replace "Sea Level Datum of 1929" (mean sea level).
[2] New State well number replaces old well number.
[3] Replaces well 26 and reflects the same water level; composite record of wells 26 and AY-68-37-203.
[4] Record low for well 26.
[5] Composite record of wells 26 and AY-68-37-203.

Table 6.--Water levels in observation wells in the Edwards aquifer, 1978

291342098475401. AL-68-50-201. Public-supply artesian well in Edwards aquifer, diam 10 to 8 in, depth 2,379 ft, cased to 2,304 ft. Lsd 724.14 ft above msl. Highest water level 14.12 ft below lsd, Nov. 12, 1973; lowest 87.62 ft below lsd, Jan. 12, 1957. Records available 1957-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12, 1978	22.60	Feb. 13, 1978	26.65	Mar. 9, 1978	27.20	Dec. 7, 1978	a28.96

a Water level furnished by Edwards Underground Water District.

293345098405901. AY-68-27-512. Unused water-table well in Edwards aquifer, diam 6 in, depth 502 ft, cased to 18 ft. Lsd 992.0 ft above msl. Highest water level 130.09 ft below lsd, Oct. 26, 1973; lowest 241.10 ft below lsd, July 6, 1978. Records available 1971-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1, 1978	204.80	Apr. 27, 1978	205.40	Oct. 1, 1978	230.80	Nov. 28, 1978	a184.46
Feb. 24	206.70	June 8	236.10	Nov. 6	a193.65	Dec. 27	a193.63
Mar. 29	197.50	July 6	241.10				

a Water level furnished by Edwards Underground Water District.

293522098291201. AY-68-29-103 (F-214). Unused water-table well in Edwards aquifer, diam 10 in, depth 547 ft, cased to 100 ft. Lsd 952.67 ft above msl. Highest water level 224.80 ft below lsd, May 31, 1977; lowest 284.35 ft below lsd, Nov. 21, 1957. Records available 1957-78.

Highest 1978 water level 235.94 ft below lsd on Jan. 1; lowest 1978 water level 255.88 ft below lsd on Sept. 7.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	236.03	237.70	239.23	242.60	244.42	246.83	.....	253.39	255.83	253.76	a254.28	a251.66
10	236.42	237.57	240.31	242.74	245.20	246.94	.....	253.55	.....	253.56	a254.37	a251.97
15	236.49	237.83	240.34	243.24	245.19	.....	.....	254.08	.....	253.96	a254.37	a251.32
20	236.82	237.98	240.87	243.45	246.53	.....	.....	255.09	.....	254.11	a254.12	a252.10
25	236.70	237.98	241.41	244.05	246.06	.....	.....	255.30	253.50	253.63	a252.96	a251.61
Eom	237.34	238.11	241.94	243.73	246.70	.....	.....	.....	253.40	254.47	a251.37	a251.45

a Water level furnished by Edwards Underground Water District.

293215098274601. AY-68-29-701 (F-172). Unused artesian well in Edwards aquifer, diam 10 in, depth 500 ft, casing information not available. Lsd 778.8 ft above msl. Highest water level 74.84 ft below lsd, Oct. 21, 1973; lowest 165.10 ft below lsd, Aug. 17, 1956. Records available 1952-78.

Highest 1978 water level 93.25 ft below lsd on Jan. 14, 15; lowest 1978 water level 127.95 ft below lsd on July 27.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	.....	96.25	97.15	102.15	101.73	109.30	121.85	112.06	111.49	101.80	a102.57	a95.79
10	.....	96.40	97.09	100.95	104.33	105.20	123.25	111.17	105.64	101.68	a99.73	a96.53
15	93.25	96.19	98.10	100.31	106.51	107.89	.....	111.95	97.87	102.46	a100.08	a97.04
20	.....	96.20	99.05	101.20	110.40	112.52	.....	113.90	98.10	103.78	a99.49	.....
25	94.23	96.80	.....	99.67	109.82	117.53	.....	115.73	99.30	103.67	a99.03	.....
Eom	95.20	96.95	100.90	100.83	111.73	120.15	120.29	114.14	100.25	103.41	a95.87	a98.40

a Water level furnished by Edwards Underground Water District.

293617098194001. AY-68-30-211 (G-69). Unused artesian well in Edwards aquifer, diam 6 in, depth 777 ft, cased to 230 ft. Lsd 776.45 ft above msl. Highest water level 85.70 ft below lsd, Oct. 16, 1973; lowest 152.34 ft below lsd, Aug. 17, 1967. Records available 1964-78.

Highest 1978 water level 102.85 ft below lsd on Jan. 2; lowest 1978 water level 130.33 ft below lsd on July 27.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	103.04	105.54	106.62	110.00	110.25	.....	130.04	120.30	119.01	110.43	a111.44	a106.50
10	103.41	105.76	106.53	109.80	.....	113.50	129.69	118.96	115.42	110.40	a109.74	a106.75
15	103.54	.....	107.09	109.15	.....	114.72	129.45	119.16	110.20	110.89	a109.58	a107.01
20	103.86	105.85	107.86	109.70	.....	.....	129.51	.....	109.44	111.67	a109.14	a107.27
25	104.11	106.26	108.43	108.95	.....	.....	129.55	121.71	109.42	111.69	a108.75	a107.52
Eom	104.84	106.39	109.17	109.72	.....	128.66	125.95	120.96	109.70	111.55	a106.87	a107.75

a Water level furnished by Edwards Underground Water District.

292845098255401. AY-68-37-203 (J-17)[b/]. Unused artesian well in Edwards aquifer, diam 6 in, depth 874 ft, cased to 491 ft. Lsd 730.81 ft above msl. Highest water level 34.29 ft below lsd, Oct. 22, 1973; lowest 110.05 ft[c/] below lsd, Aug. 17, 1956. Records available 1932-78[d/].

Highest 1978 water level 46.70 ft below lsd on Jan. 2; lowest 1978 water level 80.68 ft below lsd on July 27.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	47.14	50.46	51.28	54.81	55.37	62.64	75.25	65.35	64.49	55.08	a57.10	a50.45
10	47.63	50.69	51.18	55.12	58.05	58.83	76.76	64.27	59.89	.....	a53.95	a50.84
15	47.73	50.50	52.02	53.99	60.02	61.38	.....	65.05	53.82	55.95	a53.91	a51.17
20	48.18	50.43	52.97	54.85	64.07	66.19	79.49	67.04	52.97	57.13	a53.35	a51.63
25	48.50	50.95	53.50	53.64	63.51	71.01	79.72	69.02	53.35	57.11	a52.83	a51.86
Eom	49.56	51.12	54.71	54.79	65.55	73.73	73.57	67.55	54.17	a56.73	a50.82	a52.22

a Water level furnished by Edwards Underground Water District.
b Replaces well 26 and reflects the same water level; composite record of wells 26 and AY-68-37-203.
c Record low for well 26. Equivalent water level for AY-68-37-203 would be 118.30 ft below lsd.
d Composite record of wells 26 and AY-68-37-203.

292244098295801. AY-68-45-102 (CY-175). Unused artesian well in Edwards aquifer, diam 8 in, depth 2,103 ft, cased to 1,200 ft. Lsd 621.60 ft above msl. Highest water level 65.8 ft above lsd, May 20, 1977; lowest 18.01 ft above lsd, Aug. 2, 1956. Records available 1933-36, 1950-78.

Highest 1978 water level 54.83 ft above lsd on Jan. 23; lowest 1978 water level 32.00 ft above lsd on July 16.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	.....	.....	.....	+48.8	.....	.....	.....	.....	.....	.....	a+48.5	.....
10	.....	.....	.....	.....	+47.9	+42.4	+33.1	+38.1	+42.8	.....	a+49.8	.....
15	.....	+53.46	.....	.....	+46.4	+42.9	+32.1	+38.1	+44.7	+47.2	.....	.....
20	.....	.....	.....	.....	+43.7	.....	.....	+38.6	.....	+46.9	.....	.....
25	.....	.....	+49.0	.....	+42.9	.....	.....	+37.8	.....	.....	.....	.....
Eom	.....	.....	+49.1	.....	+41.8	.....	.....	.....	.....	.....	.....	.....

a Water level furnished by Edwards Underground Water District.

294720098030C001. DX-68-16-801 (G-25). Domestic water-table well in Edwards aquifer, diam 6 in, depth 210 ft, casing information not available. Lsd 752.71 ft above msl. Highest water level 131.70 ft below lsd, May 25, 1977; lowest 169.56 ft below lsd, Oct. 1, 1956. Records available 1936-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25, 1978	147.05	Apr. 25, 1978	145.30	July 24, 1978	147.10	Oct. 30, 1978	a145.30
Feb. 22	144.05	May 31	145.85	Aug. 28	146.55	Nov. 27	a139.70
Mar. 28	144.80	June 27	147.00	Sept. 25	a143.90	Dec. 26	a141.96

a Water level furnished by Edwards Underground Water District.

294310098080001. DX-68-23-302 (G-49). Unused water-table well in Edwards aquifer, diam 7 to 3 in, depth 230 ft, cased to 27 ft. Lsd 642.7 ft above msl. Highest water level 12.53 ft below lsd, Apr. 20, 1977; lowest 29.36 ft below lsd, Aug. 21, 1956. Records available 1948-78.

Highest 1978 water level 14.65 ft below lsd on Jan. 1-3; lowest 1978 water level 18.18 ft below lsd on July 17.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	14.67	15.04	15.23	15.66	15.74	16.56	17.55	.....	17.25	15.96	a15.17	a15.38
10	14.73	15.10	15.24	15.35	15.87	16.22	17.84	.....	16.87	15.97	a15.86	a15.40
15	14.75	15.12	15.30	15.64	16.04	16.29	18.09	.....	16.33	15.99	a15.82	a15.42
20	14.82	15.14	15.37	15.67	16.33	16.56	.....	.....	16.07	a16.07	a15.81	a15.46
25	14.86	15.18	15.49	15.66	16.33	16.91	.....	17.52	15.93	a16.08	a15.74	a15.48
Eom	14.95	15.19	15.56	15.70	16.58	17.29	.....	17.38	15.92	a16.08	a15.42	a15.16

a Water level furnished by Edwards Underground Water District.

293855098125901. DX-68-23-701 (H-20). Domestic artesian well in Edwards aquifer, diam 4 in, depth 300 ft, cased to 300 ft. Lsd 684.45 ft above msl. Highest water level 17.84 ft below lsd, Oct. 29, 1973; lowest 70.07 ft below lsd, Oct. 2, 1956. Records available 1934, 1937-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25, 1978	27.00	Apr. 25, 1978	30.30	July 24, 1978	45.80	Oct. 30, 1978	a32.57
Feb. 22	28.70	May 31	36.45	Aug. 28	41.20	Nov. 27	a29.60
Mar. 28	30.15	June 27	39.89	Sept. 25	a31.64	Dec. 26	a29.57

a Water level furnished by Edwards Underground Water District.

293636098190901. DX-68-30-208 (H-36). Unused artesian well in Edwards aquifer, diam 8 in, depth 292 ft, casing slotted 272-292 ft. Lsd 797.81 ft above msl. Highest water level 111.26 ft below lsd, Oct. 17, 1973; lowest 184.45 ft below lsd, Aug. 18, 1956. Records available 1945, 1955-78.

Highest 1978 water level 125.20 ft below lsd on Jan. 2; lowest 1978 water level 151.41 ft below lsd on July 27.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	125.33	127.63	128.77	131.87	132.39	138.04	145.91	.....	140.74	.....	a133.23	a128.58
10	125.69	127.89	128.73	131.90	133.68	135.38	147.67	140.95	137.42	.....	a131.78	a128.81
15	125.78	127.96	129.25	131.36	135.43	136.19	149.16	141.16	.....	.....	a131.58	a129.02
20	126.12	128.07	129.96	131.75	137.15	138.89	150.29	142.10	131.45	.....	a131.18	a129.25
25	126.35	128.41	130.61	131.27	137.77	142.05	150.74	143.22	131.21	.....	a130.70	a129.53
Eom	126.98	128.57	131.13	131.95	139.01	144.28	148.00	142.60	.....	a133.37	a128.94	a129.79

a Water level furnished by Edwards Underground Water District.

300025097533501. LR-58-57-902 (E-65). Domestic water-table well in Edwards aquifer, diam 6 in, depth 450 ft, casing information not available. Lsd 821.55 ft above msl. Highest water level 179.86 ft below lsd, May 25, 1977; lowest 247.63 ft below lsd, Aug. 29, 1956. Records available 1943, 1950-52, 1954, 1956, 1958, 1961, 1971-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10, 1978	219.60	Apr. 26, 1978	225.90	July 25, 1978	229.70	Oct. 30, 1978	a225.02
Jan. 26	221.58	June 1	231.20	Aug. 29	228.75	Nov. 27	a221.54
Feb. 23	226.90	June 28	227.80	Sept. 25	a224.38	Dec. 26	a221.42
Mar. 28	225.05	July 10	226.50				

a Water level furnished by Edwards Underground Water District.

300510097504001. LR-58-58-101 (E-36). Domestic artesian well in Edwards aquifer, diam 5 in, depth 244 ft, cased to 230 ft. Lsd 707.23 ft above msl. Highest water level 53.05 ft below lsd, Nov. 29, 1973; lowest 148.76 ft below lsd, July 12, 1956. Records available 1937-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1978	115.12	June 1, 1978	140.40	July 25, 1978	124.30	Oct. 30, 1978	a126.80
Feb. 23	117.70	June 28	125.60	Aug. 28	125.33	Nov. 27	a121.63
Mar. 28	119.30	July 10	120.30	Sept. 26	a131.75	Dec. 26	a122.15
Apr. 26	121.50						

a Water level furnished by Edwards Underground Water District.

295909097523301. LR-67-01-304 (LR-67-02-102) (H-23). Unused artesian well in Edwards aquifer, diam 5 in, depth 372 ft, cased to 340 ft. Lsd 718.0 ft above msl. Highest water level 124.23 ft below lsd, Mar. 29, 1968; lowest 177.60 ft below lsd, July 10, 1978. Records available 1937-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10, 1978	148.90	Apr. 25, 1978	152.75	July 24, 1978	176.20	Oct. 30, 1978	a152.05
Jan. 26	146.00	June 1	166.40	Aug. 28	168.00	Nov. 27	a148.58
Feb. 23	149.10	June 28	169.10	Sept. 25	a156.71	Dec. 26	a153.70
Mar. 28	151.98	July 10	177.60				

a Water level furnished by Edwards Underground Water District.

295344097575001. LR-67-01-701 (H-75a). Domestic artesian well in Edwards aquifer, diam 6 in, depth and casing information not available. Lsd 734.40 ft above msl. Highest water level 151.23 ft below lsd, Oct. 29, 1973; lowest 177.15 ft below lsd, Nov. 2, 1972. Records available 1954-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25, 1978	160.80	May 31, 1978	173.40	July 24, 1978	168.35	Oct. 30, 1978	a158.39
Feb. 22	157.90	June 27	170.10	Aug. 28	170.20	Nov. 27	a157.75
Mar. 28	163.15	July 10	162.90	Sept. 25	a158.20	Dec. 26	a157.74
Apr. 25	158.80						

a Water level furnished by Edwards Underground Water District.

295103097583301. LR-67-09-102 (LR-68-16-601). (H-95). Unused artesian well in Edwards aquifer, diam 6 in, depth 194 ft, casing information not available. Lsd 696.80 ft above msl. Highest water level 108.48 ft below lsd, June 1, 1976; lowest 125.30 ft below lsd, Apr. 11, 1978. Records available 1937-57, 1959-72, 1974-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1978	122.15	May 31, 1978	124.75	July 24, 1978	125.30	Oct. 30, 1978	a119.87
Apr. 11	125.30	June 27	125.00	Aug. 28	124.90	Nov. 27	a118.86
Apr. 25	124.25	July 10	120.40	Sept. 25	a125.06	Dec. 26	a118.88

a Water level furnished by Edwards Underground Water District.

295035097585501. LR-67-09-110. Unused artesian well in Edwards aquifer, diam 7 in, depth 634 ft, cased to 141.50 ft. Lsd 685.00 ft above msl. Highest water level 92.17 ft below lsd, June 15, 1975; lowest 101.55 ft below lsd, Aug. 28, 1978. Records available 1973-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25, 1978	100.40	May 31, 1978	101.30	July 24, 1978	101.45	Oct. 30, 1978	a100.70
Feb. 22	100.60	June 27	101.13	Aug. 28	101.55	Nov. 27	a99.99
Mar. 28	99.90	July 10	101.35	Sept. 25	a100.31	Dec. 26	a99.96
Apr. 25	101.05						

a Water level furnished by Edwards Underground Water District.

292519099531701. TD-68-33-604 (J-1-41). Domestic artesian well in Edwards aquifer, diam 6 in, depth 641 ft, cased to 58 ft. Lsd 846.00 ft above msl. Highest water level 96.90 ft below lsd, Apr. 28, 1977; lowest 217.74 ft below lsd, Aug. 31, 1956. Records available 1930, 1934-46, 1951-52, 1954-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24, 1978	121.85	Apr. 27, 1978	128.68	July 26, 1978	155.09	Oct. 27, 1978	a132.24
Feb. 27	123.55	May 30	173.68	Aug. 25	142.90	Nov. 29	a126.08
Mar. 29	126.60	June 26	155.10	Sept. 28	a131.40	Dec. 27	a127.40

a Water level furnished by Edwards Underground Water District.

292110098530001. TD-68-41-301 (J-1-82). Unused artesian well in Edwards aquifer, diam 6 in, depth 712 ft, casing information not available. Lsd 756.80 ft above msl. Highest water level 19.02 ft below lsd, May 1, 1977; lowest 134.53 ft below lsd, Aug. 18, 1956. Records available 1950-78.

Highest 1978 water level 34.44 ft below lsd on Jan. 1; lowest 1978 water level 75.18 ft below lsd on July 27.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	34.57	43.46	42.60	47.90	.....	64.86	72.49	61.82	60.13	50.26	a51.73	a45.04
10	35.41	43.65	41.99	47.73	.....	65.86	72.77	58.62	57.49	50.39	a49.07	a45.45
15	35.89	43.38	42.81	45.62	.....	60.96	73.34	58.37	53.14	50.87	a48.64	a45.67
20	36.66	43.06	43.76	46.25	.....	.....	74.41	60.28	.....	51.98	a48.26	a46.02
25	37.60	43.45	45.31	.....	.....	.....	74.65	62.53	.....	51.90	a47.65	a46.54
Eom	40.72	43.12	46.45	49.38	.....	70.60	69.69	62.30	49.28	a51.78	a45.62	a46.86

a Water level furnished by Edwards Underground Water District.

292618099165901. TD-69-38-601 (I-2-104). Unused water-table well in Edwards aquifer, diam 7 in, depth 538 ft, cased to 74 ft. Lsd 1,008.3 ft above msl. Highest water level 73.91 ft below lsd, Aug. 13, 1977; lowest 274.60 ft below lsd, Sept. 21, 1957. Records available 1957-78.

Highest 1978 water level 80.54 ft below lsd on Jan. 1; lowest 1978 water level 107.01 ft below lsd on Dec. 30.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	80.92	84.05	86.77	89.80	.....	.....	.....	.....	.....	.....	.....	a105.21
10	81.42	84.41	87.23	90.04	.....	.....	.....	.....	.....	.....	.....	a105.86
15	81.76	84.87	87.59	90.52	.....	.....	.....	.....	.....	.....	a104.34	a105.94
20	82.32	85.33	88.20	.....	.....	.....	.....	.....	.....	.....	a104.72	a106.15
25	82.57	85.83	88.69	.....	.....	.....	.....	.....	.....	.....	a104.80	a106.61
Eom	83.38	86.11	89.47	.....	.....	.....	.....	.....	.....	.....	a105.07	a106.61

a Water level furnished by Edwards Underground Water District.

291550099211001. TD-69-46-701 (I-4-12). Domestic artesian well in Edwards aquifer, diam 8 in, depth 1,303 ft, casing information not available. Lsd 950.00 ft above msl. Highest water level 132.42 ft below lsd, Apr. 28, 1977; lowest 291.37 ft below lsd, Aug. 31, 1956. Records available 1930, 1934, 1937-38, 1940-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1978	163.15	May 2, 1978	173.40	July 28, 1978	194.10	Oct. 26, 1978	a179.23
Mar. 1	163.95	June 7	181.70	Aug. 25	194.70	Dec. 1	a176.73
Mar. 31	167.95	June 30	218.80	Oct. 2	a203.40	Dec. 27	a176.94

a Water level furnished by Edwards Underground Water District.

292209099094801. TD-69-47-302 (I-3-148). Unused artesian well in Edwards aquifer, diam 5 in, depth 1,410 ft, casing information not available. Lsd 956.1 ft above msl. Highest water level 182.26 ft below lsd, May 18, 1977; lowest 294.74 ft below lsd, June 15, 1971. Records available 1960-78.

Highest 1978 water level, 199.20 ft below lsd on Jan. 1; lowest 1978 water level 243.01 ft below lsd on July 23.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	199.37	212.74	210.93	216.66	223.00	.....	.....	230.17	229.50	221.67	a222.77	a216.89
10	200.51	212.45	210.14	216.12	227.37	.....	241.27	227.37	226.49	221.72	a220.41	a217.29
15	201.30	212.20	211.19	213.83	.....	233.49	241.43	227.19	222.38	222.02	a219.93	a217.63
20	202.22	211.39	211.89	215.48	.....	238.74	242.23	228.86	220.16	223.22	a219.59	a218.01
25	204.18	212.69	213.94	216.59	.....	242.72	242.75	230.88	220.52	222.95	a218.91	a218.51
Eom	208.03	211.54	215.30	219.98	.....	.....	237.95	231.56	220.65	a222.63	a217.45	a218.52

a Water level furnished by Edwards Underground Water District.

292110099054501. TD-69-48-102 (I-3-146). Irrigation artesian well in Edwards aquifer, diam 12 in, depth 1,654 ft, cased to 1,320 ft. Lsd 867.2 ft above msl. Highest water level 95.26 ft below lsd, Apr. 28, 1977; lowest 257.36 ft below lsd, Aug. 14, 1963. Records available 1958-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24, 1978	127.30	Apr. 28, 1978	128.30	July 26, 1978	152.55	Oct. 27, 1978	a132.40
Feb. 27	130.20	May 30	158.20	Aug. 25	141.90	Nov. 29	a127.10
Mar. 29	124.30	June 26	163.05	Sept. 28	a130.21	Dec. 27	a128.20

a Water level furnished by Edwards Underground Water District.

292339099401501. YP-69-35-602 (YP-69-35-501) (H-2-23). Unused water-table well in Edwards aquifer, diam 7 in, depth 237 ft, cased to 57 ft. Lsd 1,170.8 ft above msl. Highest water level 23.52 ft below lsd, July 18, 1976; lowest 69.15 ft below lsd, Jan. 28, 1964. Records available 1957-78.

Highest 1978 water level 53.94 ft below lsd on Aug. 5; lowest 1978 water level 67.02 ft below lsd on July 31.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	65.80	66.03	66.01	65.95	66.01	65.82	66.07	53.94	63.54	64.27	a65.53	a64.30
10	65.84	65.99	65.93	65.99	66.07	65.86	66.13	56.29	63.58	64.49	a62.38	a64.79
15	65.80	66.03	66.07	65.99	66.01	65.95	66.18	58.56	63.08	64.77	a64.10	a64.92
20	65.89	66.01	65.99	66.00	66.14	66.01	66.50	60.84	63.19	64.97	a63.83	a65.01
25	65.89	65.99	66.10	66.05	66.04	66.05	66.85	62.41	63.59	65.04	a63.99	a65.19
Eom	65.94	66.00	65.98	65.99	66.08	65.98	67.02	63.71	63.92	a65.31	a64.10	a65.26

a Water level furnished by Edwards Underground Water District.

292711099282201. YP-69-37-402. Unused water-table well in Edwards aquifer, diam 6 in, depth 694 ft, cased to 233 ft. Lsd 1,158 ft above msl. Highest water level 256.05 ft below lsd, July 21, 1977; lowest 315.19 ft below lsd, Apr. 4, 1976. Records available 1974-78.

Highest 1978 water level 270.87 ft below lsd on Jan. 6-7; lowest 1978 water level 309.00 ft below lsd on Dec. 31.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	270.93	274.61	.....	283.98	288.71	295.70	301.23	306.73	305.62	305.45	a308.02	a308.25
10	271.45	274.93	279.22	284.69	290.12	296.30	302.35	305.83	305.75	305.74	a308.21	a308.80
15	271.68	275.58	280.15	285.78	290.90	296.52	303.42	305.47	305.90	306.25	a308.57	a308.40
20	272.46	276.30	280.97	286.64	292.28	297.83	304.55	305.37	305.42	306.58	a308.88	a308.36
25	272.57	276.74	281.97	287.47	293.26	298.93	305.66	305.08	305.25	306.90	a308.64	a308.71
Eom	273.65	277.17	283.14	288.17	294.60	300.08	306.93	305.46	305.28	a307.83	a308.47	a309.00

a Water level furnished by Edwards Underground Water District.

291633099413301. YP-69-43-804. Irrigation artesian well in Edwards aquifer, diam 16 in, depth 967 ft, cased to 365 ft. Lsd 975.00 ft above msl. Highest water level 80.28 ft below lsd, May 26, 1977; lowest 283.80 ft below lsd, June 7, 1971. Records available 1971-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5, 1978	93.67	Feb. 28, 1978	96.65	June 7, 1978	171.15	Aug. 4, 1978	172.30
Jan. 31	94.85	Mar. 30	136.60	June 29	232.20	Aug. 24	175.80

291909099281001. YP-69-45-401 (I-4-35) (I-4-4). Unused artesian well in Edwards aquifer, diam 10 in, depth 1,476 ft, cased to 937 ft. Lsd 954.04 ft above msl. Highest water level 118.64 ft below lsd, May 20, 1977; lowest 290.03 ft below lsd, Oct. 13, 1956. Records available 1956-78.

Highest 1978 water level 139.26 ft below lsd on Jan. 1; lowest 1978 water level 186.43 ft below lsd on July 1.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	139.71	150.49	154.91	160.36	165.34	174.84	183.01	176.80	175.78	172.11	a172.72	a168.79
10	141.20	151.38	154.65	160.36	.....	171.28	182.95	173.13	174.80	171.74	a171.52	a169.13
15	142.23	152.37	154.92	158.94	171.08	174.30	184.19	172.57	173.55	171.91	a170.98	a169.67
20	143.16	153.16	.....	159.60	175.75	.....	184.44	174.25	172.06	172.85	a170.45	a169.79
25	144.41	154.99	.....	161.58	174.30	.....	184.88	176.14	171.75	a172.46	a169.78	a170.31
Eom	147.00	154.72	159.69	.....	.....	186.39	183.19	177.43	171.47	a172.61	a169.29	a170.31

a Water level furnished by Edwards Underground Water District.

291426099510201. YP-69-50-101 (H-4-6). Stock artesian well in Edwards aquifer, diam 8 in, depth 100 ft, casing information not available. Lsd 950.6 ft above msl. Highest water level 50.81 ft below lsd, Feb. 11, 1975; lowest 126.17 ft below lsd, Mar. 14, 1957. Records available 1929-33, 1935-42, 1944-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1978	54.70	May 1, 1978	59.40	Aug. 3, 1978	61.15	Oct. 23, 1978	a59.71
Jan. 30	56.22	June 6	62.85	Aug. 24	59.80	Dec. 5	a59.72
Feb. 28	58.05	June 29	61.50	Oct. 3	a59.45	Dec. 28	a60.20
Mar. 30	58.40						

a Water level furnished by Edwards Underground Water District.

291414099475301. YP-69-50-202. Unused artesian well in Edwards aquifer, diam 6 in, depth 137 ft, cased 65 ft. Lsd 928.00 ft above msl. Highest water level 33.10 ft below lsd, Apr. 6, 1977; lowest water level 115.02 ft below lsd, Mar. 11, 1957. Records available 1956-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1978	39.20	May 1, 1978	46.80	Aug. 3, 1978	46.20	Oct. 23, 1978	a45.39
Jan. 30	40.45	June 6	48.80	Aug. 24	46.20	Dec. 5	a45.18
Feb. 28	42.35	June 29	48.05	Oct. 3	a45.08	Dec. 28	a45.78
Mar. 30	44.30						

a Water level furnished by Edwards Underground Water District.

291237099471201. YP-69-50-302 (H-5-1). Unused artesian well in Edwards aquifer, diam 12 in, depth 350 ft, casing information not available. Lsd 904.9 ft above msl. Highest water level 18.64 ft below lsd, May 23, 1977; lowest 93.90 ft below lsd, Apr. 13, 1957. Records available 1929-32, 1934-78.

Highest 1978 water level 22.29 ft below lsd on Jan. 16; lowest 1978 water level 29.23 ft below lsd on Aug. 1.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	22.36	23.71	24.88	25.51	26.62	27.51	28.07	28.85	27.62	27.34	a27.62	a27.10
10	22.34	24.04	25.03	25.56	26.89	27.24	28.37	28.43	27.44	27.36	a27.48	a27.12
15	22.33	24.21	24.99	25.61	27.16	27.05	28.65	28.08	27.30	27.41	a27.40	a27.23
20	22.49	24.40	25.01	25.76	27.49	27.18	28.88	27.87	27.25	27.53	a27.33	a27.32
25	22.78	24.67	25.22	25.95	27.61	27.52	29.06	27.89	27.30	27.59	a27.22	a27.43
Eom	23.22	24.79	25.34	26.29	27.58	27.82	29.22	27.85	27.36	a27.59	a27.15	a27.50

a Water level furnished by Edwards Underground Water District.

291127099501201. YP-69-50-403 (H-4-60). Unused artesian well in Edwards aquifer, diam 10 in, depth 536 ft, casing information not available. Lsd 918.9 ft above msl. Highest water level 39.19 ft below lsd, May 26, 1977; lowest 111.31 ft below lsd, Feb. 13, 1957. Records available 1954, 1957, 1961-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1978	42.55	May 1, 1978	46.70	Aug. 3, 1978	48.20	Oct. 23, 1978	a46.37
Jan. 30	43.35	June 6	48.85	Aug. 24	49.00	Dec. 5	a45.78
Feb. 28	47.00	June 29	48.75	Oct. 3	a46.29	Dec. 28	a46.97

a Water level furnished by Edwards Underground Water District.

291025099442701. YP-69-51-406 (H-5-259). Unused water-table well in Leona Formation, diam 14 in, depth 74 ft, casing information not available. Lsd 874.9 ft above msl. Highest water level 23.81 ft below lsd, July 17, 1976; lowest 61.38 ft below lsd, Mar. 13, 1957. Records available 1956-57, 1966-78.

Highest 1978 water level 27.69 ft below lsd on Jan. 12; lowest 1978 water level 33.70 ft below lsd on July 14.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	27.85	29.89	30.31	29.60	31.69	30.04	33.06	31.10	31.08	30.31	a29.72	a28.14
10	27.79	.....	30.44	30.18	32.55	29.35	33.19	30.65	30.58	29.94	a29.15	a28.57
15	27.79	.....	30.09	29.68	32.40	29.96	33.67	30.39	30.08	30.87	a28.71	a29.39
20	28.03	.....	30.65	30.34	32.98	30.99	33.44	30.42	30.73	29.78	a28.45	a29.88
25	.....	30.19	30.57	30.50	31.70	32.37	32.77	30.79	30.36	a29.24	a28.29	a29.63
Eom	30.06	30.68	29.77	30.47	31.80	33.15	31.91	31.10	30.37	a29.82	a28.12	a29.07

a Water level furnished by Edwards Underground Water District.

292344100002701. YP-70-40-901 (G-3-19). Unused water-table well in Edwards aquifer, diam 7 in, depth 140 ft, cased to 70 ft. Lsd 1,122.0 ft above msl. Highest water level 38.85 ft below lsd, Sept. 15, 1974; lowest 42.95 ft below lsd, Sept. 19, 1964. Records available 1957-78.

Highest 1978 water level 39.44 ft below lsd on Mar. 2; lowest 1978 water level 42.39 ft below lsd on Oct. 4.

Highest water level for the day, from recorder graph, 1978

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	42.32	40.82	40.82	41.94	42.08	42.31	42.05	41.99	42.14	42.38	a42.36	a42.32
10	42.31	41.94	40.70	42.01	42.20	42.35	42.12	42.22	42.25	42.36	a42.34	a42.32
15	42.29	41.73	40.99	42.07	42.22	42.38	42.10	42.19	42.32	42.36	a42.34	a42.32
20	42.31	42.07	41.92	42.17	42.26	42.22	42.15	42.13	42.33	41.67	a42.32	a42.32
25	42.31	41.14	41.70	42.06	42.28	42.08	42.16	42.05	42.33	a42.26	a42.33	a42.32
Eom	42.37	40.17	41.94	41.97	42.34	42.05	42.17	42.08	42.36	a42.35	a42.32	a42.33

a Water level furnished by Edwards Underground Water District.

291412100033001. YP-70-56-201 (G-6-4). Domestic water-table well in Austin Chalk, diam 6 in, depth 120 ft, casing information not available. Lsd 1,008.00 ft above msl. Highest water level 34.00 ft below lsd, Dec. 1, 1976; lowest 77.78 ft below lsd, Apr. 8, 1953. Records available 1937-78.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1978	42.25	Mar. 28, 1978	46.65	June 29, 1978	48.25	Oct. 3, 1978	a48.42
Jan. 30	43.30	May 1	47.15	Aug. 4	48.75	Dec. 5	a48.02
Feb. 28	46.10	June 6	49.50	Aug. 24	47.90	Dec. 28	a48.24

a Water level furnished by Edwards Underground Water District.

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978
BEXAR COUNTY

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
AY-68-21-802	78-04-11	1130	20	300	2.0	13	110	2.0	3.9	.7
AY-68-21-804	77-12-22	1300	60	279	5.0	13	110	2.9	3.2	.6
	78-03-22	1230	60	279	10	12	110	2.3	2.3	.6
	78-06-29	1200	60	279	5.0	12	120	2.8	3.1	.7
	78-09-02	1400	60	279	5.0	12	110	2.6	3.2	.7
AY-68-27-303	77-12-20	1400	60	354	15	11	92	10	4.7	.8
	78-03-20	1230	60	354	15	11	96	10	3.8	.9
	78-06-21	1320	60	354	15	11	94	9.3	5.3	.7
	78-09-01	1715	60	354	15	11	92	10	5.0	.8
AY-68-27-305	77-12-20	1245	60	253	3.0	12	96	9.5	5.0	.8
	78-03-20	1115	60	253	3.0	11	100	9.5	4.4	.8
	78-06-21	1130	60	253	3.0	11	94	9.9	5.2	.7
	78-09-01	1745	60	253	3.0	11	90	9.5	5.2	.7
AY-68-27-503	78-07-27	1530	10	435	275	11	79	15	7.0	1.0
AY-68-27-504	78-07-27	1430	10	508	520	10	93	17	9.0	1.4
AY-68-27-606	78-08-07	1330	60	603	15	13	87	11	6.5	1.2
AY-68-28-202	78-07-26	1430	360	457	125	12	83	10	5.4	1.3
AY-68-28-203	78-07-26	1000	120	435	350	11	79	10	4.6	1.0
AY-68-28-205	78-07-26	1100	--	485	285	12	84	13	5.1	1.0
AY-68-28-501	78-07-26	1330	300	468	100	13	94	5.2	5.7	1.1
AY-68-28-502	78-07-26	1230	240	506	110	12	90	11	5.4	1.2
AY-68-28-508	78-08-02	1015	180	396	150	12	63	12	5.3	1.0
AY-68-28-511	78-08-02	1400	360	454	200	12	80	11	7.0	.9
AY-68-28-512	77-12-21	1145	60	400	7.5	12	95	7.5	5.4	.9
	78-03-20	1400	60	400	7.0	12	100	8.6	5.0	1.0
	78-09-04	1115	60	400	7.0	11	90	10	5.9	.9
AY-68-28-608	77-12-21	1210	60	500	15	13	100	5.1	6.3	1.1
	78-03-21	1400	60	500	15	13	110	5.0	7.5	1.1
	78-06-21	1445	60	500	15	15	--	4.5	--	1.0
AY-68-28-608	78-09-04	1300	60	500	15	13	100	4.5	5.7	1.0
AY-68-29-104	78-03-14	1430	120	602	400	--	--	--	--	--
AY-68-29-109	78-08-16	1200	30	460	450	13	96	10	8.1	.8
AY-68-29-208	77-12-22	1400	60	266	10	14	110	3.0	4.9	.6
	78-03-22	1400	60	266	10	13	110	3.1	4.1	.6
	78-09-01	1530	60	266	10	13	100	3.0	5.2	.5
AY-68-29-209	77-12-22	1500	60	315	10	13	100	1.9	3.9	.7
	78-03-22	1100	60	315	10	13	100	2.0	2.8	.8
	78-09-02	1100	60	315	10	13	100	2.2	4.3	.6
AY-68-29-210	78-04-12	1215	60	330	3.0	11	100	8.7	4.3	.7
	78-06-28	1100	60	330	3.0	12	98	8.8	4.4	.8
	78-08-31	1445	60	330	3.0	11	89	14	5.0	.9
AY-68-29-303	78-07-31	1500	420	527	150	11	89	9.3	4.5	.9
AY-68-29-401	78-08-16	1330	240	517	600	14	92	14	6.1	.9
AY-68-29-702	78-08-10	1400	300	872	3000	11	86	13	8.0	1.2
AY-68-29-805	78-08-02	1300	120	800	2700	13	81	17	9.0	1.5
AY-68-30-102	78-08-04	1230	30	415	1000	12	90	6.9	6.2	.8
AY-68-35-102	78-08-11	1130	45	796	200	12	76	18	8.0	1.3
AY-68-36-102	77-12-14	1230	360	786	9000	13	84	17	9.3	1.5
AY-68-36-508	77-12-14	1130	360	950	5500	13	67	16	7.5	1.2
AY-68-37-104	78-08-10	1230	120	995	8300	12	71	17	8.5	1.3
AY-68-37-404	78-08-10	1500	60	1326	4000	12	63	15	8.2	1.2
AY-68-37-426	77-12-14	1410	480	1114	3000	12	65	17	7.6	1.1
AY-68-37-506	78-08-14	1115	30	1407	7600	12	62	16	9.1	1.2
AY-68-37-705	78-08-14	1345	60	1798	--	12	62	16	8.4	1.2

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
AY-68-21-802	78-04-11	300	0	6.7	8.0	.1	.1	1.1	.00	.02
AY-68-21-804	77-12-22	330	0	3.3	8.1	.1	--	3.9	.07	.00
	78-03-22	290	0	4.2	7.7	.1	.1	1.9	.00	.01
	78-06-29	320	0	--	--	.1	.4	5.8	.00	.02
	78-09-02	320	0	6.7	12	.1	--	5.9	.01	.01
AY-68-27-303	77-12-20	300	0	8.8	11	.1	--	3.1	.07	.00
	78-03-20	290	0	11	14	.1	.1	3.8	.00	.01
	78-06-21	300	0	11	12	.1	.1	3.2	.03	.01
	78-09-01	300	0	8.6	10	.1	--	3.0	.01	.00
AY-68-27-305	77-12-20	310	0	10	11	.1	--	2.8	.02	.00
	78-03-20	290	0	23	12	.1	.1	2.9	.00	.01
	78-06-21	300	0	10	15	.1	.1	2.5	.00	.01
	78-09-01	300	0	9.6	11	.1	--	3.3	.00	.00
AY-68-27-503	78-07-27	290	0	18	17	.2	.1	1.4	.00	.00
AY-68-27-504	78-07-27	310	0	34	18	.3	.1	1.3	.00	.02
AY-68-27-606	78-08-07	300	0	11	11	.1	.0	2.6	.00	.00
AY-68-28-202	78-07-26	290	0	12	9.9	.1	.1	1.5	.00	.00
AY-68-28-203	78-07-26	280	0	10	9.4	.1	.1	.94	.00	.00
AY-68-28-205	78-07-26	310	0	12	13	.2	.1	.58	.00	.00
AY-68-28-501	78-07-26	300	0	6.8	15	.1	.1	.97	.00	.00
AY-68-28-502	78-07-26	320	0	11	14	.2	.1	.95	.00	.00
AY-68-28-508	78-08-02	210	0	19	10	.2	.1	2.6	.00	.00
AY-68-28-511	78-08-02	290	0	8.3	11	.1	.1	1.2	.00	.00
AY-68-28-512	77-12-21	300	0	15	10	.1	--	1.5	.04	.07
	78-03-20	290	0	16	9.9	.1	.1	1.8	.00	.04
	78-09-04	300	0	16	10	.1	--	1.9	.00	.03
AY-68-28-608	77-12-21	310	0	12	11	.1	--	1.8	.07	.00
	78-03-21	300	0	29	13	.1	.1	1.5	.00	.02
	78-06-21	300	0	11	5.3	.2	.1	1.3	.03	.02
AY-68-28-608	78-09-04	300	0	7.7	9.8	.1	--	1.1	.00	.00
AY-68-29-104	78-03-14	330	0	--	--	--	--	--	--	--
AY-68-29-109	78-08-16	340	0	8.5	14	.1	.1	1.6	.00	.00
AY-68-29-208	77-12-22	320	0	5.4	11	.1	--	1.3	.07	.00
	78-03-22	310	0	3.3	12	.1	.1	1.1	.00	.00
	78-09-01	320	0	4.3	9.4	.1	--	1.4	.00	.01
AY-68-29-209	77-12-22	310	0	3.4	8.4	.0	--	1.7	.08	.00
	78-03-22	300	0	4.2	7.4	.1	.0	1.6	.00	.03
	78-09-02	310	0	3.3	7.4	.1	--	1.4	.01	.01
AY-68-29-210	78-04-12	320	0	6.4	8.2	.1	.1	1.1	.00	.02
	78-06-28	310	0	11	18	.1	.1	1.3	.00	.01
	78-08-31	310	0	8.8	9.0	.1	.1	1.4	.00	.01
AY-68-29-303	78-07-31	312	0	8.5	9.0	.1	.2	1.7	.00	.00
AY-68-29-401	78-08-16	330	0	6.6	10	.1	.2	1.4	.00	.01
AY-68-29-702	78-08-10	310	0	24	11	.2	.1	1.7	.00	.01
AY-68-29-805	78-08-02	290	0	30	13	.2	.1	2.0	.00	.00
AY-68-30-102	78-08-04	280	0	18	11	.2	.1	1.3	.00	.00
AY-68-35-102	78-08-11	270	0	43	13	.2	.1	--	.00	.00
AY-68-36-102	77-12-14	290	0	28	15	.2	--	2.7	.01	.00
AY-68-36-508	77-12-14	230	0	19	21	.2	--	--	.00	.00
AY-68-37-104	78-08-10	260	0	32	12	.2	.2	1.8	.00	.01
AY-68-37-404	78-08-10	250	0	15	13	.2	.1	2.0	.00	.00
AY-68-37-426	77-12-14	250	0	18	15	.2	--	2.2	.08	.00
AY-68-37-506	78-08-14	240	0	22	19	.2	1.6	1.7	.02	.00
AY-68-37-705	78-08-14	240	0	26	16	.3	.1	1.8	.02	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)
AY-68-21-802	78-04-11	293	280	37	3	.1	510	7.3	21.5	.6
AY-68-21-804	77-12-22	305	290	16	2	.1	535	7.2	23.5	.5
	78-03-22	283	280	46	2	.1	512	7.1	23.0	.2
	78-06-29	--	310	47	2	.1	592	6.7	23.5	.5
	78-09-02	307	290	23	2	.1	572	6.8	24.0	.4
AY-68-27-303	77-12-20	287	270	25	4	.1	530	7.2	22.5	.6
	78-03-20	290	280	43	3	.1	532	7.1	22.5	.4
	78-06-21	291	270	27	4	.1	530	7.0	23.0	.6
	78-09-01	286	270	25	4	.1	520	6.7	22.5	.8
AY-68-27-305	77-12-20	299	280	25	4	.1	530	7.2	22.0	.5
	78-03-20	306	290	51	3	.1	537	7.0	22.0	.3
	78-06-21	294	280	29	4	.1	532	7.0	22.5	.2
	78-09-01	287	260	18	4	.1	520	6.7	22.5	1.0
AY-68-27-503	78-07-27	291	260	21	6	.2	530	6.9	21.5	--
AY-68-27-504	78-07-27	336	300	48	6	.2	587	6.9	21.5	--
AY-68-27-606	78-08-07	289	260	17	5	.2	536	6.9	22.5	--
AY-68-28-202	78-07-26	277	250	11	4	.2	506	6.9	23.5	--
AY-68-28-203	78-07-26	263	240	9	4	.1	508	6.6	23.5	--
AY-68-28-205	78-07-26	293	260	9	4	.1	534	6.9	24.0	--
AY-68-28-501	78-07-26	289	260	10	5	.2	527	6.9	22.5	--
AY-68-28-502	78-07-26	303	270	8	4	.1	553	6.8	23.5	--
AY-68-28-508	78-08-02	226	210	35	5	.2	411	7.2	22.8	--
AY-68-28-511	78-08-02	273	250	7	6	.2	498	6.9	23.0	--
AY-68-28-512	77-12-21	294	270	22	4	.1	515	7.1	23.0	.8
	78-03-20	296	290	47	4	.1	535	7.1	23.0	.3
	78-09-04	292	270	20	5	.2	523	6.9	23.0	.1
AY-68-28-608	77-12-21	302	270	16	5	.2	520	7.1	22.0	.5
	78-03-21	327	300	49	5	.2	545	7.1	22.0	.1
	78-06-21	--	--	--	--	--	538	6.9	22.0	.3
AY-68-28-608	78-09-04	290	270	22	4	.2	512	6.9	22.5	.3
AY-68-29-104	78-03-14	--	--	--	--	--	592	7.1	23.0	--
AY-68-29-109	78-08-16	318	280	2	6	.2	588	6.8	23.0	--
AY-68-29-208	77-12-22	308	290	25	4	.1	525	7.1	23.0	.6
	78-03-22	300	290	33	3	.1	535	7.1	23.0	.0
	78-09-01	294	260	0	4	.1	541	6.8	22.5	.4
AY-68-29-209	77-12-22	285	260	3	3	.1	525	7.1	23.0	.7
	78-03-22	279	260	12	2	.1	510	7.1	23.0	.1
	78-09-02	285	260	5	3	.1	503	6.8	23.5	.4
AY-68-29-210	78-04-12	298	290	23	3	.1	537	6.8	22.0	1.0
	78-06-28	306	280	27	3	.1	531	6.7	22.5	1.1
	78-08-31	292	280	26	4	.1	527	6.6	22.5	--
AY-68-29-303	78-07-31	286	260	5	4	.1	510	6.7	22.5	--
AY-68-29-401	78-08-16	307	290	17	4	.2	560	6.8	23.5	--
AY-68-29-702	78-08-10	307	270	14	6	.2	567	6.9	22.5	--
AY-68-29-805	78-08-02	308	270	35	7	.2	550	7.5	23.0	--
AY-68-30-102	78-08-04	283	250	24	5	.2	511	7.0	22.5	--
AY-68-35-102	78-08-11	305	260	42	6	.2	547	6.8	22.5	--
AY-68-36-102	77-12-14	311	280	42	7	.2	545	7.3	22.0	--
AY-68-36-508	77-12-14	265	230	45	7	.2	475	7.4	24.0	--
AY-68-37-104	78-08-10	282	250	34	7	.2	518	6.9	23.5	--
AY-68-37-404	78-08-10	251	220	14	7	.2	470	6.9	25.0	--
AY-68-37-426	77-12-14	259	230	27	7	.2	475	7.5	25.0	--
AY-68-37-506	78-08-14	262	220	24	8	.3	468	6.9	27.0	--
AY-68-37-705	78-08-14	260	220	24	8	.2	474	7.0	27.0	--

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)
AY-68-21-802	78-04-11	0	0	0	--	.10
AY-68-21-804	77-12-22	0	0	0	--	.00
	78-03-22	0	0	0	--	.00
	78-06-29	0	0	0	--	--
	78-09-02	1	<1	<1	--	.10
AY-68-27-303	77-12-20	0	0	0	--	.00
	78-03-20	0	0	0	--	.00
	78-06-21	330	0	0	--	--
	78-09-01	<1	<1	<1	--	.00
AY-68-27-305	77-12-20	1700	0	0	--	.00
	78-03-20	460	0	0	--	.00
	78-06-21	0	0	0	--	--
	78-09-01	<1	<1	<1	--	.10
AY-68-27-503	78-07-27	<1	<1	<1	.4	.10
AY-68-27-504	78-07-27	<1	<1	<1	.3	.10
AY-68-27-606	78-08-07	<1	<1	<1	.2	.00
AY-68-28-202	78-07-26	4	<1	<1	.2	.00
AY-68-28-203	78-07-26	<1	<1	<1	.3	.00
AY-68-28-205	78-07-26	<1	<1	<1	.4	.00
AY-68-28-501	78-07-26	<1	<1	<1	.2	.00
AY-68-28-502	78-07-26	<1	<1	<1	.2	.00
AY-68-28-508	78-08-02	K95	18	8	.7	.20
AY-68-28-511	78-08-02	--	--	--	.1	--
AY-68-28-512	77-12-21	3600	0	1	--	.00
	78-03-20	0	0	0	--	.10
	78-09-04	<1	<1	<1	--	.00
AY-68-28-608	77-12-21	0	0	0	--	.00
	78-03-21	0	0	0	--	.00
	78-06-21	0	0	0	--	-
AY-68-28-608	78-09-04	<1	<1	<1	--	.10
AY-68-29-104	78-03-14	0	0	0	--	--
AY-68-29-109	78-08-16	<1	<1	<1	.5	.10
AY-68-29-208	77-12-22	0	0	0	--	.00
	78-03-22	0	0	0	--	.10
	78-09-01	<1	<1	<1	--	.00
AY-68-29-209	77-12-22	0	0	0	--	.00
	78-03-22	0	0	0	--	.00
	78-09-02	<1	<1	<1	--	.00
AY-68-29-210	78-04-12	5	0	0	.7	--
	78-06-28	4	0	0	--	--
	78-08-31	16	6	11	3.5	.10
AY-68-29-303	78-07-31	3	<1	<1	.3	.00
AY-68-29-401	78-08-16	<1	<1	<1	2.5	.10
AY-68-29-702	78-08-10	<1	<1	<1	.2	.00
AY-68-29-805	78-08-02	--	--	--	.2	--
AY-68-30-102	78-08-04	--	--	--	.6	.00
AY-68-35-102	78-08-11	<1	<1	<1	1.1	.10
AY-68-36-102	77-12-14	0	0	0	--	.00
AY-68-36-508	77-12-14	0	0	0	3.9	.00
AY-68-37-104	78-08-10	<1	<1	<1	.5	.00
AY-68-37-404	78-08-10	<1	<1	<1	.1	.20
AY-68-37-426	77-12-14	--	--	--	1.3	.00
AY-68-37-506	78-08-14	<1	<1	<1	.5	.00
AY-68-37-705	78-08-14	<1	<1	<1	1.3	.10

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
AY-68-21-802	78-04-11	1130	300	2.0	20	1	0	0	2	20
AY-68-21-804	77-12-22	1300	279	5.0	60	1	0	0	0	30
	78-03-22	1230	279	10	60	1	0	0	0	40
	78-06-29	1200	279	5.0	60	--	--	--	--	--
	78-09-02	1400	279	5.0	60	1	0	0	3	20
AY-68-27-303	77-12-20	1400	354	15	60	1	0	0	0	20
	78-03-20	1230	354	15	60	1	0	0	0	20
	78-06-21	1320	354	15	60	--	--	--	--	--
	78-09-01	1715	354	15	60	1	0	0	0	10
AY-68-27-305	77-12-20	1245	253	3.0	60	1	0	0	3	20
	78-03-20	1115	253	3.0	60	1	0	0	4	10
	78-06-21	1130	253	3.0	60	--	--	--	--	--
	78-09-01	1745	253	3.0	60	1	0	0	2	70
AY-68-27-503	78-07-27	1530	435	275	10	1	1	10	4	20
AY-68-27-504	78-07-27	1430	508	520	10	1	<1	10	5	<10
AY-68-27-606	78-08-07	1330	603	15	60	0	<1	10	0	<10
AY-68-28-202	78-07-26	1430	457	125	360	1	<1	10	3	<10
AY-68-28-203	78-07-26	1000	435	350	120	1	<1	10	2	<10
AY-68-28-205	78-07-26	1100	485	285	--	1	<1	0	2	<10
AY-68-28-501	78-07-26	1330	468	100	300	1	<1	0	1	<10
AY-68-28-502	78-07-26	1230	506	110	240	2	<1	10	2	<10
AY-68-28-508	78-08-02	1015	396	150	180	1	1	10	5	20
AY-68-28-511	78-08-02	1400	454	200	360	1	<1	0	1	<10
AY-68-28-512	77-12-21	1145	400	7.5	60	1	0	0	1	20
	78-03-20	1400	400	7.0	60	1	0	0	0	10
	78-09-04	1115	400	7.0	60	1	0	0	0	20
AY-68-28-608	77-12-21	1210	500	15	60	1	0	0	0	20
	78-03-21	1400	500	15	60	2	0	0	1	10
	78-09-04	1300	500	15	60	1	0	0	1	30
AY-68-29-109	78-08-16	1200	460	450	30	1	<1	10	4	<10
AY-68-29-208	77-12-22	1400	266	10	60	1	0	0	0	30
	78-03-22	1400	266	10	60	1	0	0	0	10
	78-09-01	1530	266	10	--	1	0	0	0	20
AY-68-29-209	77-12-22	1500	315	10	60	1	0	0	0	20
	78-03-22	1100	315	10	60	1	0	0	1	10
	78-09-02	1100	315	10	60	0	0	10	0	20
AY-68-29-210	78-04-12	1215	330	3.0	60	1	0	0	4	10
	78-06-28	1100	330	3.0	60	--	--	--	--	--
	78-08-31	1445	330	3.0	60	1	0	0	0	80
AY-68-29-303	78-07-31	1500	527	150	420	1	<1	0	2	<10
AY-68-29-401	78-08-16	1330	517	600	240	1	0	10	2	20
AY-68-29-702	78-08-10	1400	872	3000	300	1	<1	10	3	<10
AY-68-29-805	78-08-02	1300	800	2700	120	1	1	10	7	20
AY-68-30-102	78-08-04	1230	418	1000	30	1	<1	0	0	<10
AY-68-35-102	78-08-11	1130	796	200	45	0	1	10	2	10
AY-68-36-102	77-12-14	1230	786	9000	360	1	0	0	0	10
AY-68-36-508	77-12-14	1130	950	5500	360	1	0	0	2	20
AY-68-37-104	78-08-10	1230	995	8300	120	1	<1	10	1	<10
AY-68-37-404	78-08-10	1500	1326	4000	60	1	<1	10	2	<10
AY-68-37-426	77-12-14	1410	1114	3000	480	1	0	0	0	10
AY-68-37-506	78-08-14	1115	1407	7600	30	1	<1	10	2	<10
AY-68-37-705	78-08-14	1345	1798	--	60	1	1	0	3	10

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AY-68-21-802	78-04-11	4	0	.0	2	860
AY-68-21-804	77-12-22	9	0	.0	--	940
	78-03-22	3	10	.0	1	840
	78-06-29	5	--	--	--	--
	78-09-02	4	20	.0	--	1400
AY-68-27-303	77-12-20	1	0	.0	--	300
	78-03-20	0	10	.0	1	220
	78-06-21	5	--	--	--	--
	78-09-01	0	10	.0	--	280
AY-68-27-305	77-12-20	4	0	.0	--	2000
	78-03-20	0	0	.0	1	2100
	78-06-21	1	--	--	--	--
	78-09-01	4	20	.0	--	2200
AY-68-27-503	78-07-27	0	0	.0	--	10
AY-68-27-504	78-07-27	0	<1	.0	--	<3
AY-68-27-606	78-08-07	14	<1	.1	--	480
AY-68-28-202	78-07-26	0	<1	.0	--	<3
AY-68-28-203	78-07-26	0	<1	.0	--	10
AY-68-28-205	78-07-26	0	<1	.0	--	20
AY-68-28-501	78-07-26	0	<1	.0	--	8
AY-68-28-502	78-07-26	0	<1	.0	--	7
AY-68-28-508	78-08-02	2	0	.0	--	10
AY-68-28-511	78-08-02	2	1	.1	--	50
AY-68-28-512	77-12-21	2	0	.0	--	500
	78-03-20	0	10	.0	1	380
	78-09-04	4	10	.0	--	490
AY-68-28-608	77-12-21	6	0	.0	--	520
	78-03-21	0	0	.0	1	540
	78-09-04	4	10	.0	--	520
AY-68-29-109	78-08-16	3	<1	.1	--	30
AY-68-29-208	77-12-22	4	0	.0	--	600
	78-03-22	0	0	.0	1	550
	78-09-01	6	10	.0	--	550
AY-68-29-209	77-12-22	4	0	.0	--	560
	78-03-22	4	10	.0	1	550
	78-09-02	3	10	.0	--	670
AY-68-29-210	78-04-12	5	0	.0	1	830
	78-06-28	5	--	--	--	--
	78-08-31	54	0	.0	--	860
AY-68-29-303	78-07-31	0	<1	.0	--	<3
AY-68-29-401	78-08-16	3	0	.0	--	0
AY-68-29-702	78-08-10	3	<1	.0	--	<3
AY-68-29-805	78-08-02	2	0	.2	--	10
AY-68-30-102	78-08-04	6	<1	.0	--	<3
AY-68-35-102	78-08-11	4	1	.0	--	70
AY-68-36-102	77-12-14	0	0	.0	--	10
AY-68-36-508	77-12-14	2	0	.0	--	0
AY-68-37-104	78-08-10	0	<1	.1	--	<3
AY-68-37-404	78-08-10	3	<1	.1	--	<3
AY-68-37-426	77-12-14	1	0	.0	--	0
AY-68-37-506	78-08-14	2	<1	.0	--	<3
AY-68-37-705	78-08-14	2	1	.0	--	3

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ALDRIN, TOTAL (UG/L) (39330)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIELDRIN TOTAL (UG/L) (39380)
AY-68-21-802	78-04-11	1130	418	2.0	20	.00	.00	.00	.00	.00
AY-68-21-804	77-12-22	1300	418	5.0	60	.00	.00	.00	.00	.00
	78-03-22	1230	418	10	60	.00	.00	.00	.00	.00
AY-68-27-303	77-12-20	1400	435	15	60	.00	.00	.00	.00	.00
	78-03-20	1230	435	15	60	.00	.00	.00	.00	.00
AY-68-27-305	77-12-20	1245	435	3.0	60	.00	.00	.00	.00	.00
	78-03-20	1115	435	3.0	60	.00	.00	.00	.00	.00
AY-68-27-503	78-07-27	1530	435	275	10	--	--	--	--	--
AY-68-28-202	78-07-26	1430	457	125	360	.00	.00	.00	.00	.00
AY-68-28-203	78-07-26	1000	435	350	120	.00	.00	.00	.00	.00
AY-68-28-502	78-07-26	1230	506	110	240	.00	.00	.00	.00	.00
AY-68-28-512	77-12-21	1145	264	7.5	60	.00	.00	.00	.00	.00
	78-03-20	1400	264	7.0	60	.00	.00	.00	.00	.00
AY-68-28-608	77-12-21	1210	517	15	60	.00	.00	.00	.00	.00
	78-03-21	1400	517	15	60	.00	.00	.00	.00	.00
AY-68-29-208	77-12-22	1400	418	10	60	.00	.00	.00	.00	.00
	78-03-22	1400	418	10	60	.00	.00	.00	.00	.00
AY-68-29-209	77-12-22	1500	418	10	60	.00	.00	.00	.00	.00
	78-03-22	1100	418	10	60	.00	.00	.00	.00	.00
AY-68-29-210	78-04-12	1215	814	3.0	60	.00	.00	.00	.00	.00
AY-68-30-102	78-08-04	1230	418	1000	30	.00	.00	.00	.00	.00
AY-68-35-102	78-08-11	1130	335	200	45	.00	.00	.00	.00	.00
AY-68-37-506	78-08-14	1115	1326	7600	30	.00	.00	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	CHLORDANE, TOTAL (UG/L) (39350)	PCB, TOTAL (UG/L) (39516)	DIAZINON, TOTAL (UG/L) (39570)	MALATHION, TOTAL (UG/L) (39530)	METHYL PARATHION, TOTAL (UG/L) (39600)
AY-68-21-802	78-04-11	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-21-804	77-12-22	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-22	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-27-303	77-12-20	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-20	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-27-305	77-12-20	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-20	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-27-503	78-07-27	--	--	--	--	--	--	.00	.00	.00
AY-68-28-202	78-07-26	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-28-203	78-07-26	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-28-502	78-07-26	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-28-512	77-12-21	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-20	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-28-608	77-12-21	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-21	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-29-208	77-12-22	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-22	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-29-209	77-12-22	.00	.00	.00	.00	.0	.0	.00	.00	.00
	78-03-22	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-29-210	78-04-12	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-30-102	78-08-04	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-35-102	78-08-11	.00	.00	.00	.00	.0	.0	.00	.00	.00
AY-68-37-506	78-08-14	.00	.00	.00	.00	.0	.0	.00	.00	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
BEXAR COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	PARATHION, TOTAL (UG/L) (39540)	2,4-D, TOTAL (UG/L) (39730)	SILVEX, TOTAL (UG/L) (39760)	2,4,5-T TOTAL (UG/L) (39740)
AY-68-21-802	78-04-11	.00	.00	.00	.00
AY-68-21-804	77-12-22	.00	.00	.00	.00
	78-03-22	.00	.00	.00	.00
AY-68-27-303	77-12-20	.00	.00	.00	.00
	78-03-20	.00	.00	.00	.00
AY-68-27-305	77-12-20	.00	.00	.00	.00
	78-03-20	.00	.00	.00	.00
AY-68-27-503	78-07-27	.00	.00	.00	.00
AY-68-28-202	78-07-26	.00	.00	.00	.00
AY-68-28-203	78-07-26	.00	.00	.00	.00
AY-68-28-502	78-07-26	.00	.00	.00	.00
AY-68-28-512	77-12-21	.00	.00	.00	.00
	78-03-20	.00	.00	.00	.00
AY-68-28-608	77-12-21	.00	.00	.00	.00
	78-03-21	.00	.00	.00	.00
AY-68-29-208	77-12-22	.00	.00	.00	.00
	78-03-22	.00	.00	.00	.00
AY-68-29-209	77-12-22	.00	.00	.00	.00
	78-03-22	.00	.00	.00	.00
AY-68-29-210	78-04-12	.00	.00	.00	.00
AY-68-30-102	78-08-04	.00	.00	.00	.00
AY-68-35-102	78-08-11	.00	.11	.00	.00
AY-68-37-506	78-08-14	.00	.00	.00	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
COMAL COUNTY

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
DX-68-15-901	78-08-03	1415	--	--	E4500	10	80	12	5.2	1.1
DX-68-16-502	78-08-03	1115	15	230	300	12	86	16	7.8	1.1
DX-68-22-901	78-07-27	0920	10	255	--	11	78	11	4.5	1.0
DX-68-22-902	78-07-27	1000	--	240	750	11	81	11	5.5	.9
	78-07-29	1000	--	240	750	11	81	11	5.5	.9
DX-68-23-301	78-07-25	1230	--	--	E2200	12	76	16	7.9	1.3
DX-68-23-303	78-07-25	1330	240	1045	4700	12	76	17	8.9	1.5
DX-68-23-305	78-08-03	0945	20	102	1200	13	76	18	9.3	1.5
DX-68-23-316	78-08-31	1215	60	350	10	11	95	7.8	4.6	.7
DX-68-23-601	78-07-25	1420	15	365	2100	12	76	15	7.4	1.3
DX-68-23-602	78-07-25	1455	360	790	2750	12	80	14	6.6	1.2

LOCAL IDENTIFIER	DATE OF SAMPLE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
DX-68-15-901	78-08-03	290	0	12	9.7	.2	.1	1.8	.00	.01
DX-68-16-502	78-08-03	320	0	18	13	.2	.1	2.1	.00	.00
DX-68-22-901	78-07-27	290	0	10	9.7	.1	.1	2.0	.00	.00
DX-68-22-902	78-07-27	290	0	13	13	.1	.1	--	.00	.00
	78-07-29	290	0	13	13	.1	.1	--	.00	.00
DX-68-23-301	78-07-25	280	0	21	17	.2	.2	1.9	.00	.00
DX-68-23-303	78-07-25	270	0	29	17	.2	.1	1.8	.00	.00
DX-68-23-305	78-08-03	280	0	26	12	.2	.1	1.9	.00	.00
DX-68-23-316	78-08-31	320	0	11	7.9	.1	.1	2.1	.01	.00
DX-68-23-601	78-07-25	280	0	20	16	.2	.1	2.1	.00	.00
DX-68-23-602	78-07-25	290	0	15	15	.2	.3	2.1	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
DX-68-15-901	78-08-03	273	250	11	4	.1	496	6.9	22.0	--
DX-68-16-502	78-08-03	312	280	18	6	.2	576	7.0	23.0	<1
DX-68-22-901	78-07-27	268	240	2	4	.1	505	6.9	22.5	<1
DX-68-22-902	78-07-27	279	250	10	5	.2	517	7.0	22.5	--
	78-07-29	279	250	10	5	.2	517	7.0	22.5	--
DX-68-23-301	78-07-25	290	260	26	6	.2	541	7.0	23.5	39
DX-68-23-303	78-07-25	295	260	38	7	.2	551	6.9	24.0	<1
DX-68-23-305	78-08-03	294	260	34	7	.2	519	7.2	24.0	--
DX-68-23-316	78-08-31	298	270	7	4	.1	541	6.8	23.0	--
DX-68-23-601	78-07-25	286	250	22	6	.2	537	6.9	23.5	<1
DX-68-23-602	78-07-25	287	260	20	5	.2	537	6.9	23.0	<1

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
COMAL COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)
DX-68-15-901	78-08-03	--	--	1.4	.10
DX-68-16-502	78-08-03	<1	<1	.3	.00
DX-68-22-901	78-07-27	<1	<1	.1	.00
DX-68-22-902	78-07-27	--	--	.1	--
	78-07-29	--	--	.1	--
DX-68-23-301	78-07-25	17	64	.3	.00
DX-68-23-303	78-07-25	<1	<1	.1	.00
DX-68-23-305	78-08-03	--	--	.8	--
DX-68-23-316	78-08-31	--	--	.6	.10
DX-68-23-601	78-07-25	<1	<1	.4	.00
DX-68-23-602	78-07-25	<1	<1	.4	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
DX-68-15-901	78-08-03	1415	--	E4500	--	0	<1	10	2	<10
DX-68-16-502	78-08-03	1115	230	300	15	0	<1	10	1	<10
DX-68-22-901	78-07-27	0920	255	--	10	1	<1	0	3	<10
DX-68-22-902	78-07-27	1000	240	750	--	1	1	10	2	10
	78-07-29	1000	240	750	--	1	1	10	2	10
DX-68-23-301	78-07-25	1230	--	E2200	--	1	<1	0	0	<10
DX-68-23-303	78-07-25	1330	1045	4700	240	1	<1	0	0	<10
DX-68-23-305	78-08-03	0945	102	1200	20	1	1	10	3	10
DX-68-23-316	78-08-31	1215	350	10	60	1	0	0	3	30
DX-68-23-601	78-07-25	1420	365	2100	15	1	<1	0	0	<10
DX-68-23-602	78-07-25	1455	790	2750	360	1	<1	10	3	<10

LOCAL IDENTIFIER	DATE OF SAMPLE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DX-68-15-901	78-08-03	0	<1	.0	<3
DX-68-16-502	78-08-03	0	<1	.0	<3
DX-68-22-901	78-07-27	0	<1	.0	<3
DX-68-22-902	78-07-27	0	1	.0	3
	78-07-29	0	1	.0	3
DX-68-23-301	78-07-25	3	<1	.0	<3
DX-68-23-303	78-07-25	3	<1	.0	<3
DX-68-23-305	78-08-03	3	0	.0	10
DX-68-23-316	78-08-31	6	10	.0	1900
DX-68-23-601	78-07-25	3	<1	.0	<3
DX-68-23-602	78-07-25	4	<1	.0	<3

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
COMAL COUNTY--Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	ALDRIN, TOTAL (UG/L) (39330)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)
DX-68-22-901	78-07-27	0920	255	--	10	.00	.00	.00	.00	.00
DX-68-23-301	78-07-25	1230	--	E2200	--	.00	.00	.00	.00	.00
DX-68-23-316	78-08-31	1215	350	10	60	.00	.00	.00	.00	.00
DX-68-23-602	78-07-25	1455	790	2750	360	.00	.00	.00	.00	.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	CHLOR-DANE, TOTAL (UG/L) (39350)	PCB, TOTAL (UG/L) (39516)	DI-AZINON, TOTAL (UG/L) (39570)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)
DX-68-22-901	78-07-27	.00	.00	.00	.00	.0	.0	.00	.00	.00
DX-68-23-301	78-07-25	.00	.00	.00	.00	.0	.0	.00	.00	.00
DX-68-23-316	78-08-31	.00	.00	.00	.00	.0	.0	.00	.00	.00
DX-68-23-602	78-07-25	.00	.00	.00	.00	.0	.0	.00	.00	.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PARA-THION, TOTAL (UG/L) (39540)	2,4-D, TOTAL (UG/L) (39730)	SILVEX, TOTAL (UG/L) (39760)	2,4,5-T TOTAL (UG/L) (39740)
DX-68-22-901	78-07-27	.00	.00	.00	.00
DX-68-23-301	78-07-25	.00	.00	.00	.00
DX-68-23-316	78-08-31	.00	.00	.00	.00
DX-68-23-602	78-07-25	.00	.00	.00	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
HAYS COUNTY

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
LR 58-57-101	78-07-11	1125	30	217	--	15	89	32	7.8	2.4
LR 58-57-202	78-07-12	0805	30	200	15	--	--	--	--	--
LR 58-57-303	78-07-17	0820	30	315	--	--	--	--	--	--
LR 58-57-402	78-07-18	1400	25	380	--	--	--	--	--	--
LR 58-57-502	78-07-12	1300	30	385	15	14	68	30	5.8	1.6
LR 58-57-901	78-07-12	0935	--	575	104	--	--	--	--	--
LR 58-58-105	78-08-08	1030	30	477	--	11	60	23	6.5	1.4
LR 58-58-403	78-07-12	1045	--	390	--	--	--	--	--	--
LR 58-58-403	78-07-24	1010	10	390	800	10	69	25	5.5	1.3
LR 58-58-407	78-07-17	1100	--	634	--	11	69	31	5.0	1.2
LR-67-01-302	78-08-15	1115	45	360	440	--	--	--	--	--
LR-67-01-308	78-08-15	1230	45	765	400	13	60	38	12	2.2
LR-67-01-801	78-07-25	1030	--	--	E100	11	82	17	9.2	1.4
LR-67-01-806	78-07-24	1300	360	128	2700	12	87	16	9.8	1.4
LR-67-09-105	78-08-15	1530	1440	330	1500	13	90	18	13	1.5
LR-67-09-111	78-07-24	1415	420	--	1000	11	85	16	8.7	1.3

LOCAL IDENTIFIER	DATE OF SAMPLE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
LR 58-57-101	78-07-11	380	0	28	14	.4	--	.27	.00	.00
LR 58-57-202	78-07-12	--	--	--	--	--	--	1.0	.00	.00
LR 58-57-303	78-07-17	--	--	--	--	--	--	2.1	.00	.01
LR 58-57-402	78-07-18	--	--	--	--	--	--	.24	.00	.00
LR 58-57-502	78-07-12	310	0	30	11	.4	--	1.7	.00	.00
LR 58-57-901	78-07-12	--	--	--	--	--	--	.80	.00	.00
LR 58-58-105	78-08-08	290	0	21	21	.4	--	1.7	.00	.00
LR 58-58-403	78-07-12	--	--	--	--	--	--	2.1	.00	.00
LR 58-58-403	78-07-24	330	0	26	14	.5	.3	1.6	.00	.00
LR 58-58-407	78-07-17	320	0	91	14	1.4	--	.54	.00	.00
LR-67-01-302	78-08-15	--	--	--	--	--	--	.50	.05	.00
LR-67-01-308	78-08-15	270	0	120	12	3.8	.0	.28	.07	.00
LR-67-01-801	78-07-25	315	0	24	21	.2	.2	1.5	.00	.00
LR-67-01-806	78-07-24	310	0	21	23	.2	.2	2.3	.00	.00
LR-67-09-105	78-08-15	320	0	29	22	.2	.2	2.0	.02	.00
LR-67-09-111	78-07-24	320	0	20	19	.2	.2	1.8	.00	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
HAYS COUNTY--Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
LR 58-57-101	78-07-11	376	350	42	5	.2	640	6.5	21.5	7100
LR 58-57-202	78-07-12	--	--	--	--	--	660	7.0	22.5	2
LR 58-57-303	78-07-17	--	--	--	--	--	580	7.0	23.0	<1
LR 58-57-402	78-07-18	--	--	--	--	--	560	6.9	26.0	<1
LR 58-57-502	78-07-12	314	290	39	4	.1	540	6.7	23.0	1
LR 58-57-901	78-07-12	--	--	--	--	--	486	7.2	23.5	<1
LR 58-58-105	78-08-08	287	240	7	5	.2	480	7.2	23.5	1000
LR 58-58-403	78-07-12	--	--	--	--	--	580	7.1	23.0	<1
LR 58-58-403	78-07-24	314	280	5	4	.1	572	7.3	22.5	<1
LR 58-58-407	78-07-17	381	300	37	3	.1	550	6.8	24.5	2
LR-67-01-302	78-08-15	--	--	--	--	--	--	--	25.0	<1
LR-67-01-308	78-08-15	394	310	85	8	.3	703	6.9	24.5	<1
LR-67-01-801	78-07-25	321	270	16	7	.2	577	7.0	22.0	6
LR-67-01-806	78-07-24	324	280	29	7	.3	598	6.8	22.5	<1
LR-67-09-105	78-08-15	345	300	37	9	.3	614	7.0	23.0	--
LR-67-09-111	78-07-24	319	280	16	6	.2	588	7.0	23.0	<1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L) (38260)
LR 58-57-101	78-07-11	10	32	--	--
LR 58-57-202	78-07-12	<1	<1	--	--
LR 58-57-303	78-07-17	<1	9	--	--
LR 58-57-402	78-07-18	<1	<1	--	--
LR 58-57-502	78-07-12	<1	2	--	--
LR 58-57-901	78-07-12	<1	3	--	--
LR 58-58-105	78-08-08	5	860	--	--
LR 58-58-403	78-07-12	<1	<1	--	--
LR 58-58-403	78-07-24	<1	<1	1.2	.00
LR 58-58-407	78-07-17	<1	<1	--	--
LR-67-01-302	78-08-15	<1	<1	.4	.10
LR-67-01-308	78-08-15	<1	<1	.3	.00
LR-67-01-801	78-07-25	<1	<1	.3	.00
LR-67-01-806	78-07-24	<1	<1	2.8	.00
LR-67-09-105	78-08-15	--	--	.5	.10
LR-67-09-111	78-07-24	<1	<1	.3	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
HAYS COUNTY--Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
LR 58-57-502	78-07-12	1300	385	15	30	2	0	0	1	20
LR-58-58-403	78-07-24	1010	390	800	10	1	1	10	13	<10
LR-67-01-308	78-08-15	1230	765	400	45	0	<1	0	0	<10
LR-67-01-801	78-07-25	1030	--	E100	--	1	<1	0	0	<10
LR-67-01-806	78-07-24	1300	128	2700	360	1	<1	10	1	<10
LR-67-09-105	78-08-15	1530	330	1500	1440	1	0	10	0	20
LR-67-09-111	78-07-24	1415	--	1000	420	1	<1	0	3	<10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
LR 58-57-502	78-07-12	3	10	.0	80
LR-58-58-403	78-07-24	5	<1	.0	5
LR-67-01-308	78-08-15	0	<1	.4	<3
LR-67-01-801	78-07-25	0	<1	.0	<3
LR-67-01-806	78-07-24	0	<1	.0	<3
LR-67-09-105	78-08-15	2	0	.0	0
LR-67-09-111	78-07-24	2	<1	.0	<3

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ALDRIN, TOTAL (UG/L) (39330)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIELDRIN TOTAL (UG/L) (39380)
LR 58-57-502	78-07-12	1300	385	15	30	.00	.00	.00	.00	.00
LR-58-58-403	78-07-24	1010	390	800	10	.00	.00	.00	.00	.00
LR-67-01-801	78-07-25	1030	--	E100	--	.00	.00	.00	.00	.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	CHLORDANE, TOTAL (UG/L) (39350)	PCB, TOTAL (UG/L) (39516)	DIAZINON, TOTAL (UG/L) (39570)	MALATHION, TOTAL (UG/L) (39530)	METHYL PARATHION, TOTAL (UG/L) (39600)
LR 58-57-502	78-07-12	.00	.00	.00	.00	.0	.0	.01	.00	.00
LR-58-58-403	78-07-24	.00	.00	.00	.00	.0	.0	.00	.00	.00
LR-67-01-801	78-07-25	.00	.00	.00	.00	.0	.0	.00	.00	.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PARATHION, TOTAL (UG/L) (39540)	2,4-D, TOTAL (UG/L) (39730)	SILVEX, TOTAL (UG/L) (39760)	2,4,5-T TOTAL (UG/L) (39740)
LR 58-57-502	78-07-12	.00	.00	.00	.00
LR-58-58-403	78-07-24	.00	.00	.00	.00
LR-67-01-801	78-07-25	.00	.00	.00	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
MEDINA COUNTY

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
TD-68-26-701	78-09-01	0900	20	750	1000	12	74	20	7.1	1.3
TD-68-33-301	78-08-22	1005	15	805	500	12	67	19	6.8	1.4
TD-68-33-701	78-08-22	1430	60	1242	1950	12	72	13	7.0	1.1
TD-68-41-303	78-08-22	1545	45	717	350	12	67	15	7.9	1.1
TD-69-29-901	78-09-29	1245	45	276	20	12	87	7.5	5.6	1.0
TD-69-37-302	78-09-29	1425	30	410	20	12	80	12	7.3	1.2
TD-69-39-506	78-08-23	1340	10	654	1100	13	86	8.8	9.8	1.6
TD-69-46-601	78-08-25	1400	30	1289	350	12	69	15	7.2	1.1
TD-69-47-301	78-08-25	1230	300	1510	1000	12	67	15	7.2	1.2

LOCAL IDENTIFIER	DATE OF SAMPLE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
TD-68-26-701	78-09-01	250	0	53	12	.3	.1	1.4	.01	.00
TD-68-33-301	78-08-22	230	0	48	12	.2	.1	.92	.02	.02
TD-68-33-701	78-08-22	260	0	15	12	.2	.1	1.9	.01	.01
TD-68-41-303	78-08-22	250	0	16	18	.2	.1	2.3	.01	.01
TD-69-29-901	78-09-29	260	0	16	12	.1	--	2.7	.01	.01
TD-69-37-302	78-09-29	254	0	23	15	.2	--	3.7	.01	.01
TD-69-39-506	78-08-23	240	0	17	15	.1	.3	11	.04	.03
TD-69-46-601	78-08-25	250	0	18	14	.2	.1	2.0	.01	.01
TD-69-47-301	78-08-25	250	0	17	13	.2	.1	1.8	.01	.01

LOCAL IDENTIFIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
TD-68-26-701	78-09-01	303	270	62	5	.2	528	7.0	22.5	--
TD-68-33-301	78-08-22	280	250	57	6	.2	488	7.1	21.5	<1
TD-68-33-701	78-08-22	261	230	20	6	.2	473	7.1	24.0	--
TD-68-41-303	78-08-22	261	230	24	7	.2	478	7.0	24.0	<1
TD-69-29-901	78-09-29	270	250	35	5	.2	480	7.0	22.5	--
TD-69-37-302	78-09-29	276	250	41	6	.2	480	7.1	22.0	--
TD-69-39-506	78-08-23	270	250	54	8	.3	532	6.8	22.0	--
TD-69-46-601	78-08-25	260	230	29	6	.2	475	6.8	23.5	<1
TD-69-47-301	78-08-25	256	230	24	6	.2	466	6.8	24.5	<1

LOCAL IDENTIFIER	DATE OF SAMPLE	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)
TD-68-26-701	78-09-01	--	--	.6	.10
TD-68-33-301	78-08-22	<1	<1	.5	.00
TD-68-33-701	78-08-22	--	--	.8	.10
TD-68-41-303	78-08-22	<1	<1	.7	.10
TD-69-29-901	78-09-29	--	--	1.0	.10
TD-69-37-302	78-09-29	--	--	.7	.20
TD-69-39-506	78-08-23	--	--	1.2	.20
TD-69-46-601	78-08-25	<1	<1	1.8	.10
TD-69-47-301	78-08-25	<1	<1	.3	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
MEDINA COUNTY--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
TD-68-26-701	78-09-01	0900	750	1000	20	0	0	0	0	10
TD-68-33-301	78-08-22	1005	805	500	15	1	0	10	0	50
TD-68-33-701	78-08-22	1430	1242	1950	60	1	0	10	0	220
TD-68-41-303	78-08-22	1545	717	350	45	1	0	0	3	20
TD-69-29-901	78-09-29	1245	276	20	45	0	1	0	15	80
TD-69-37-302	78-09-29	1425	410	20	30	0	1	0	48	40
TD-69-39-506	78-08-23	1340	654	1100	10	1	0	0	0	10
TD-69-46-601	78-08-25	1400	1289	350	30	1	0	0	1	10
TD-69-47-301	78-08-25	1230	1510	1000	300	1	0	0	1	10

LOCAL IDENTIFIER	DATE OF SAMPLE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
TD-68-26-701	78-09-01	0	10	.0	10
TD-68-33-301	78-08-22	0	0	.0	10
TD-68-33-701	78-08-22	0	0	.0	10
TD-68-41-303	78-08-22	1	0	.0	10
TD-69-29-901	78-09-29	0	0	.0	110
TD-69-37-302	78-09-29	0	0	.0	250
TD-69-39-506	78-08-23	0	0	.0	10
TD-69-46-601	78-08-25	0	0	.0	10
TD-69-47-301	78-08-25	0	0	.0	10

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ALDRIN, TOTAL (UG/L) (39330)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIELDRIN TOTAL (UG/L) (39380)
TD-69-29-901	78-09-29	1245	276	20	45	.00	.00	.00	.00	.00
TD-69-37-302	78-09-29	1425	410	20	30	.00	.00	.00	.00	.00
TD-69-47-301	78-08-25	1230	1510	1000	300	.00	.00	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	CHLORDANE, TOTAL (UG/L) (39350)	PCB, TOTAL (UG/L) (39516)	DIAZINON, TOTAL (UG/L) (39570)	MALATHION, TOTAL (UG/L) (39530)	METHYL PARATHION, TOTAL (UG/L) (39600)
TD-69-29-901	78-09-29	.00	.00	.00	.00	.0	.0	.00	.00	.00
TD-69-37-302	78-09-29	.00	.00	.00	.00	.0	.0	.00	.00	.00
TD-69-47-301	78-08-25	.00	.00	.00	.00	.0	.0	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	PARATHION, TOTAL (UG/L) (39540)	2,4-D, TOTAL (UG/L) (39730)	SILVEX, TOTAL (UG/L) (39760)	2,4,5-T TOTAL (UG/L) (39740)
TD-69-29-901	78-09-29	.00	.00	.00	.00
TD-69-37-302	78-09-29	.00	.00	.00	.00
TD-69-47-301	78-08-25	.00	.00	.00	.00

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
UVALDE COUNTY

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
YP-69-35-803	78-09-19	1545	120	682	1500	12	67	12	5.6	.9
YP-69-44-502	78-07-14	1230	300	1380	1500	15	74	17	11	1.2
YP-69-45-404	78-08-24	1230	360	1493	250	12	82	21	18	2.3
YP-69-50-203	78-09-19	1330	30	525	1400	12	90	10	14	1.0
YP-69-50-506	78-09-19	1225	45	525	480	12	99	8.5	18	1.1

LOCAL IDENTIFIER	DATE OF SAMPLE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
YP-69-35-803	78-09-19	240	0	9.3	13	.1	.1	2.1	.01	.01
YP-69-44-502	78-07-14	230	0	26	40	.4	.2	2.3	.00	.00
YP-69-45-404	78-08-24	260	0	77	22	.3	.2	2.5	.01	.01
YP-69-50-203	78-09-19	250	0	16	45	.1	.2	3.2	.01	.02
YP-69-50-506	78-09-19	260	0	24	67	.1	.8	4.1	.02	.01

LOCAL IDENTIFIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
YP-69-35-803	78-09-19	238	220	20	5	.2	432	7.4	23.0	--
YP-69-44-502	78-07-14	298	260	66	9	.3	515	7.1	28.0	0
YP-69-45-404	78-08-24	363	290	78	12	.5	625	6.9	23.0	<1
YP-69-50-203	78-09-19	312	270	61	10	.4	570	7.0	23.0	<1
YP-69-50-506	78-09-19	359	280	69	12	.5	593	7.2	23.5	<1

LOCAL IDENTIFIER	DATE OF SAMPLE	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)
YP-69-35-803	78-09-19	--	--	.5	.10
YP-69-44-502	78-07-14	0	0	.5	.10
YP-69-45-404	78-08-24	<1	<1	.9	.10
YP-69-50-203	78-09-19	<1	<1	.3	.20
YP-69-50-506	78-09-19	<1	<1	.4	.20

Table 7.--Water-quality data for wells and springs in the Edwards aquifer, October 1977 to September 1978--Continued
UVALDE COUNTY--Continued

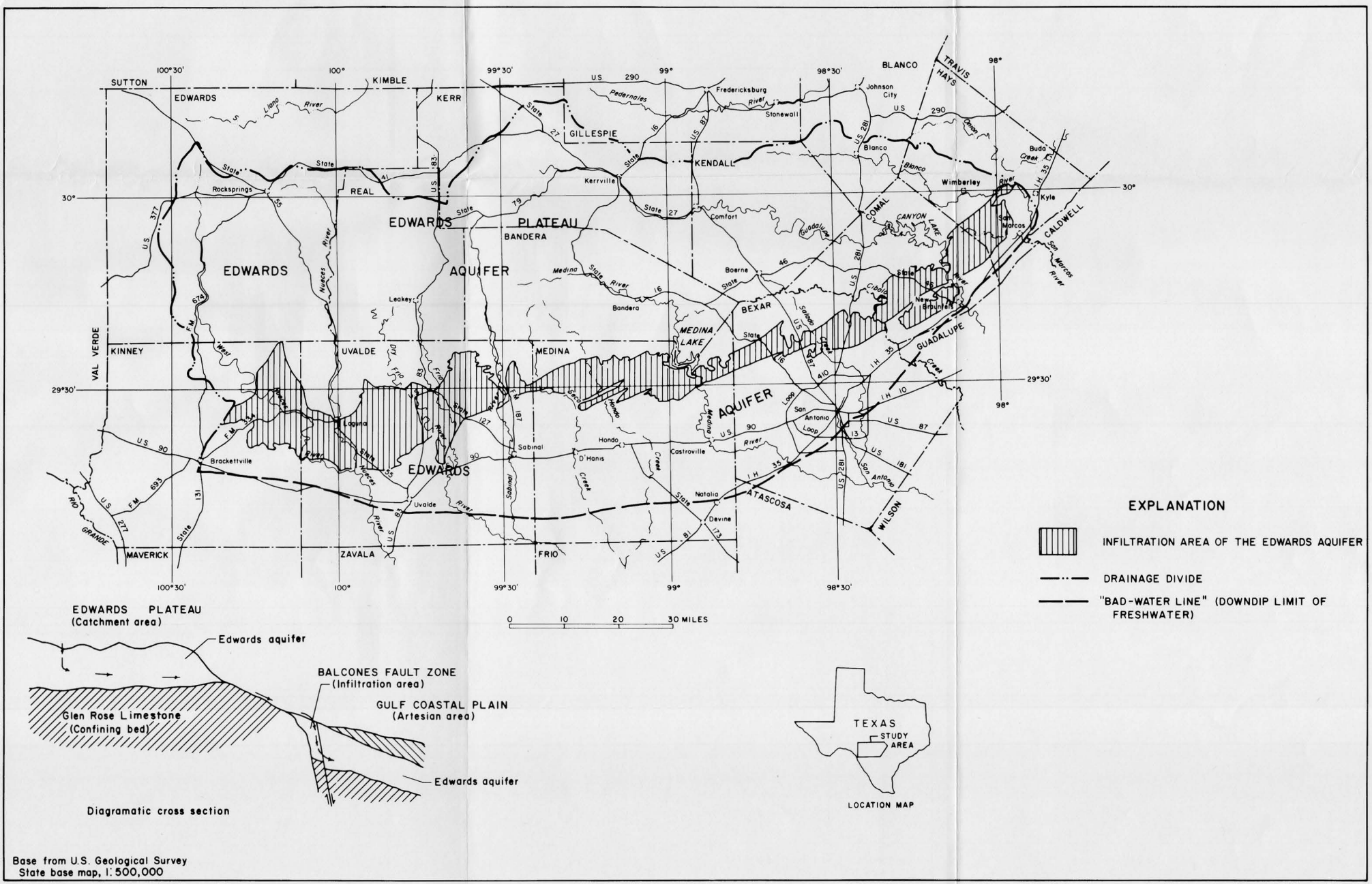
LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
YP-69-35-803	78-09-19	1545	682	1500	120	1	1	0	0	50
YP-69-44-502	78-07-14	1230	1380	1500	300	2	1	0	3	10
YP-69-45-404	78-08-24	1230	1493	250	360	1	0	0	2	20
YP-69-50-203	78-09-19	1330	525	1400	30	1	1	0	0	20
YP-69-50-506	78-09-19	1225	525	480	45	1	1	10	14	20

LOCAL IDENTIFIER	DATE OF SAMPLE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
YP-69-35-803	78-09-19	0	0	.0	10
YP-69-44-502	78-07-14	4	10	.0	20
YP-69-45-404	78-08-24	3	10	.0	10
YP-69-50-203	78-09-19	1	0	.0	10
YP-69-50-506	78-09-19	0	0	.0	10

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	ALDRIN, TOTAL (UG/L) (39330)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIELDRIN TOTAL (UG/L) (39380)
YP-69-45-404	78-08-24	1230	1493	250	360	.00	.00	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	CHLORDANE, TOTAL (UG/L) (39350)	PCB, TOTAL (UG/L) (39516)	DIAZINON, TOTAL (UG/L) (39570)	MALATHION, TOTAL (UG/L) (39530)	METHYL PARATHION, TOTAL (UG/L) (39600)
YP-69-45-404	78-08-24	.00	.00	.00	.00	.0	.0	.00	.00	.00

LOCAL IDENTIFIER	DATE OF SAMPLE	PARATHION, TOTAL (UG/L) (39540)	2,4-D, TOTAL (UG/L) (39730)	SILVEX, TOTAL (UG/L) (39760)	2,4,5-T TOTAL (UG/L) (39740)
YP-69-45-404	78-08-24	.00	.00	.00	.00



Base from U.S. Geological Survey
State base map, 1:500,000

FIGURE 1.-Hydrologic features in the San Antonio area

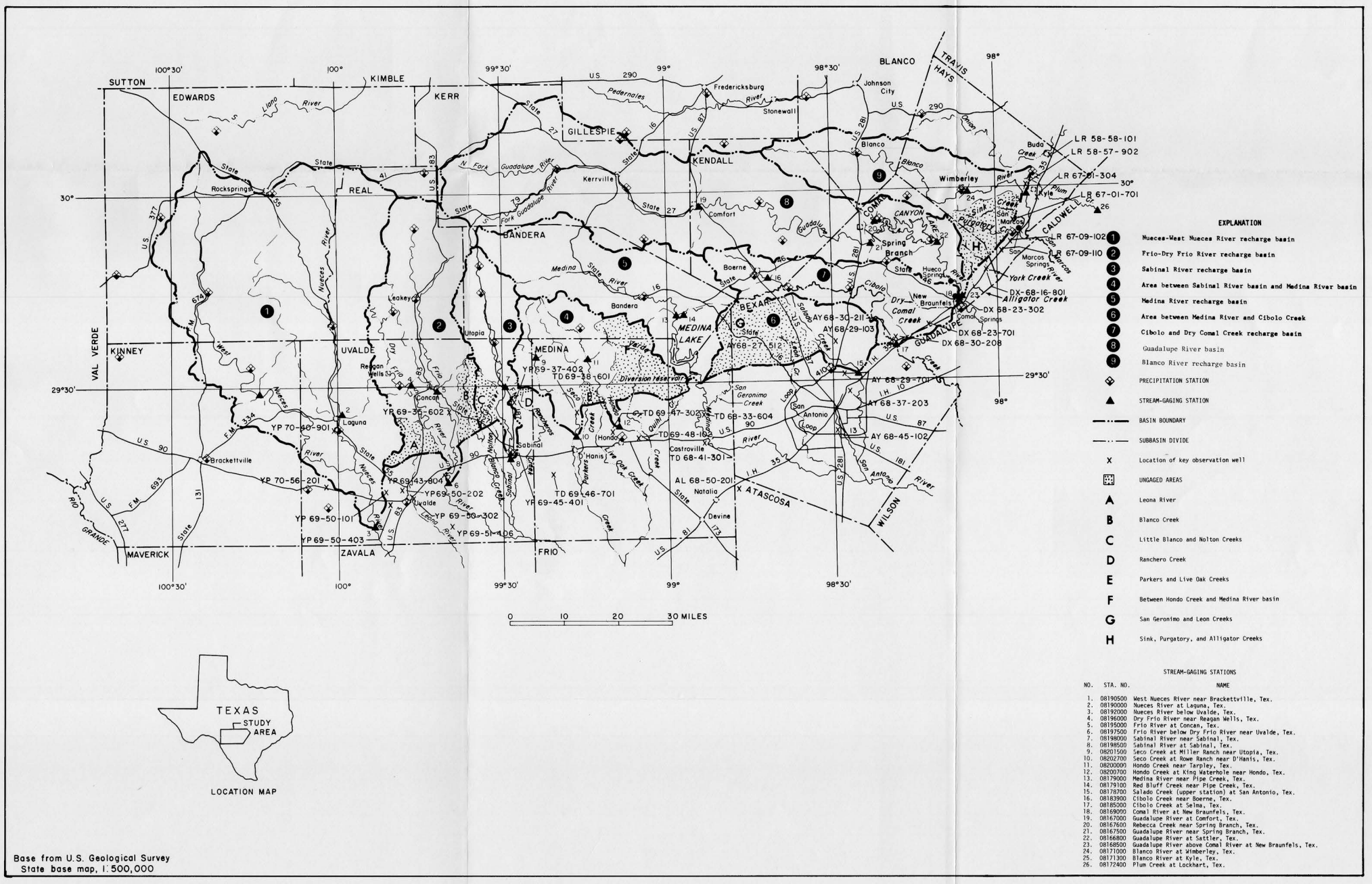
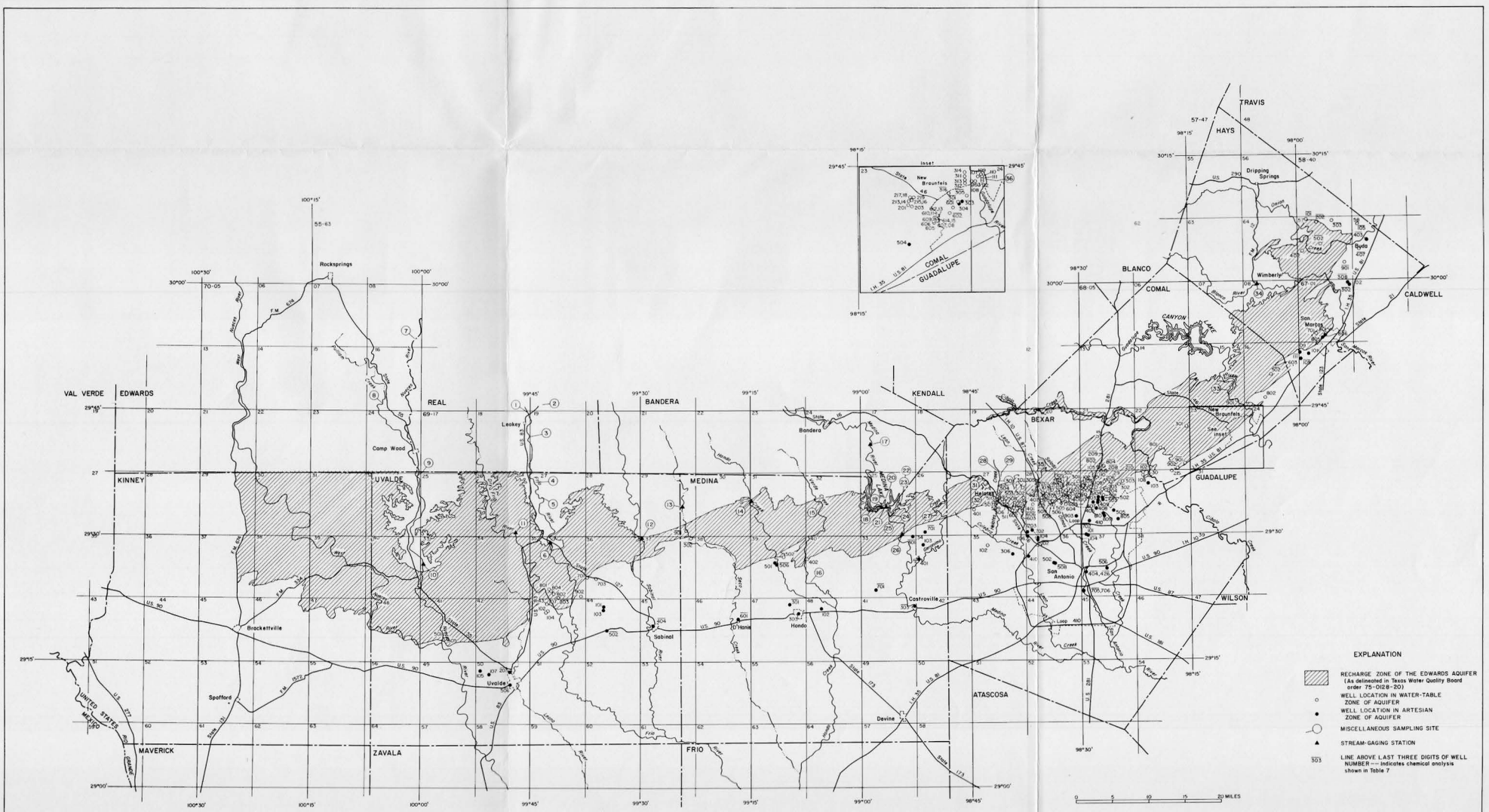


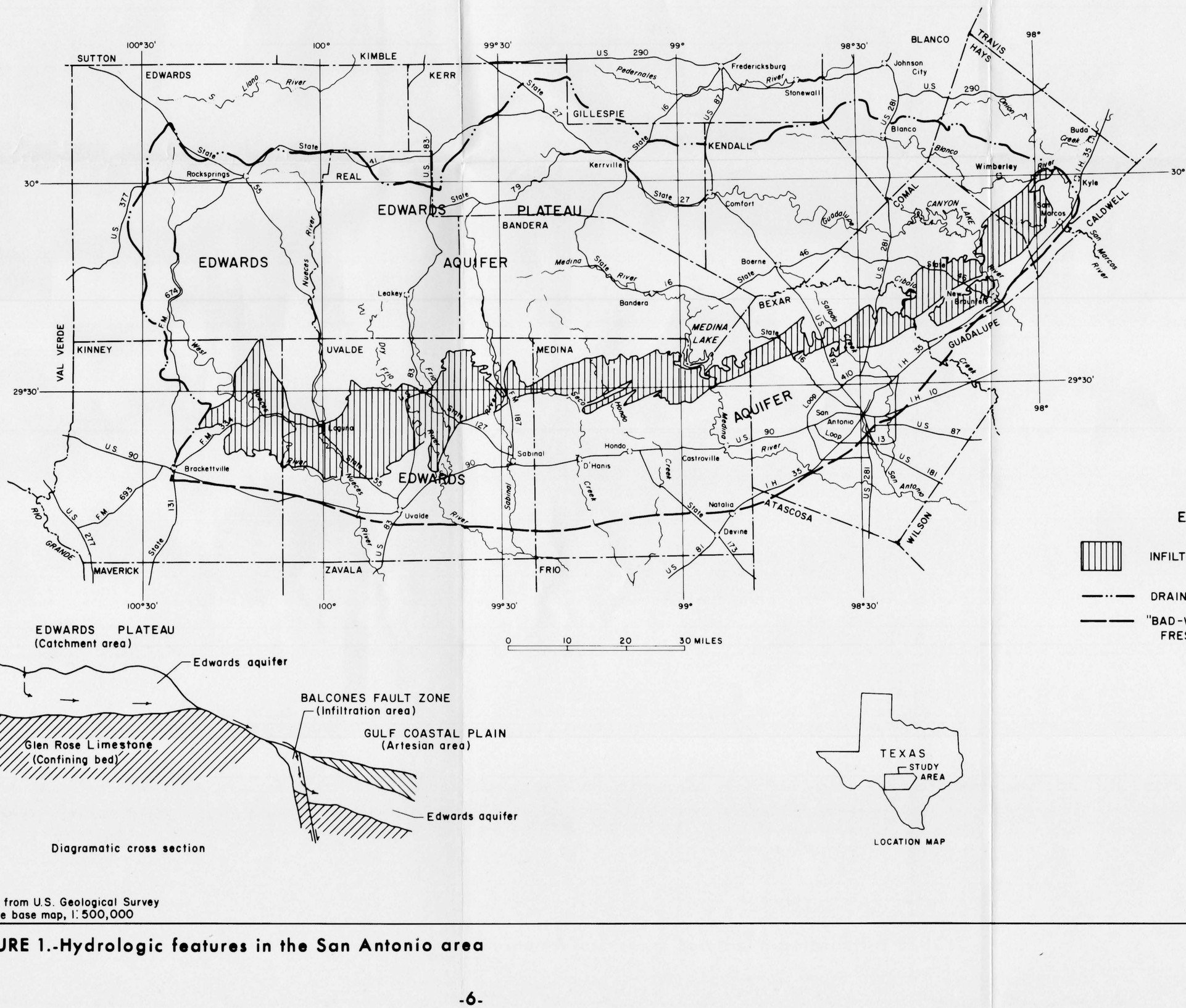
FIGURE 2.-Drainage basins and data-collection sites in the San Antonio area



Base from U.S. Geological Survey
1:250,000 quadrangles

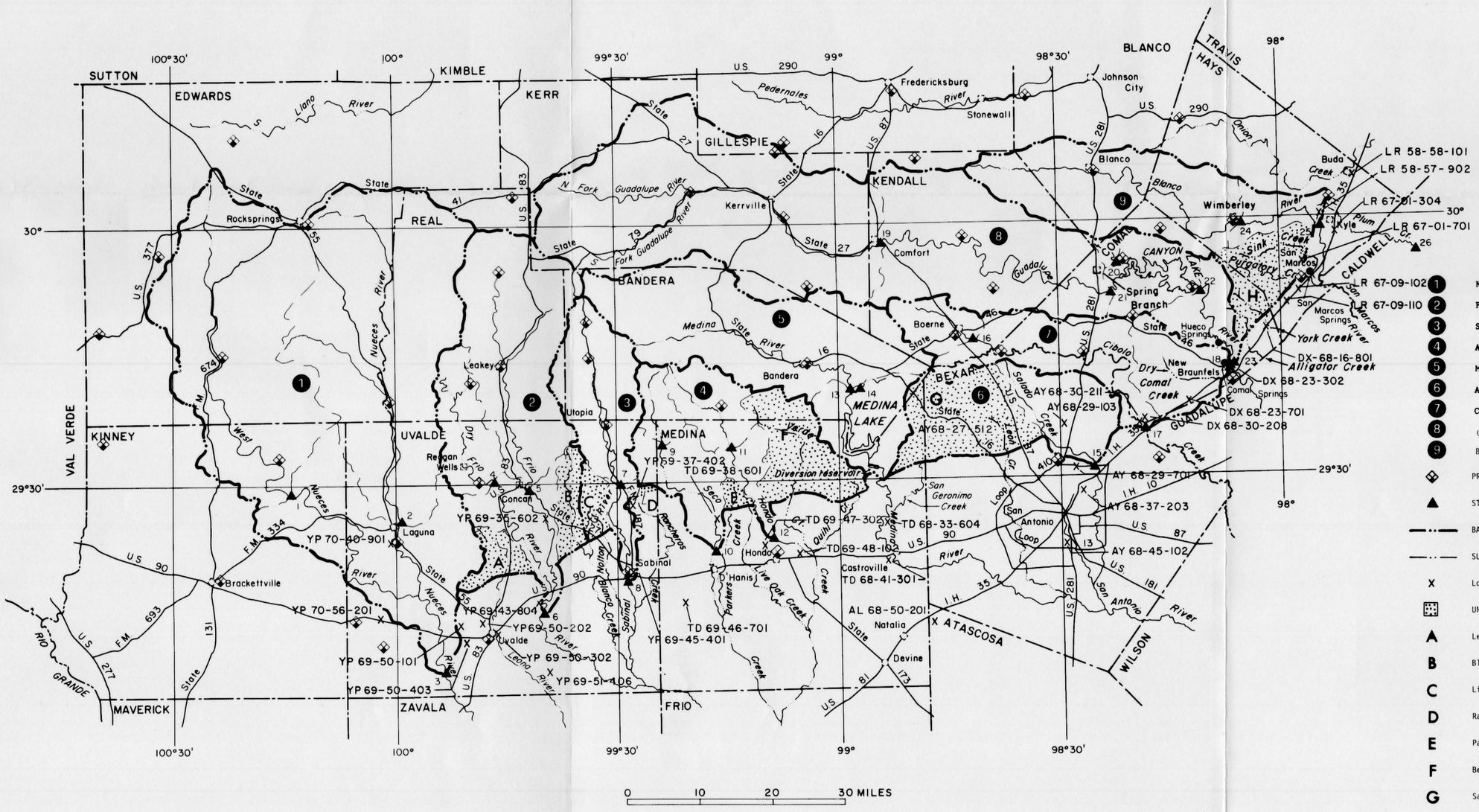
FIGURE 4.-Locations of water-quality data-collection sites in the San Antonio area

Note: Large-format versions of the original plates are on the following pages.



Base from U.S. Geological Survey
State base map, 1:500,000

FIGURE 1.-Hydrologic features in the San Antonio area



Base from U.S. Geological Survey
State base map, 1:500,000

EXPLANATION

- 1 Nueces-West Nueces River recharge basin
- 2 Frio-Dry Frio River recharge basin
- 3 Sabinal River recharge basin
- 4 Area between Sabinal River basin and Medina River basin
- 5 Medina River recharge basin
- 6 Area between Medina River and Cibolo Creek
- 7 Cibolo and Dry Comal Creek recharge basin
- 8 Guadalupe River basin
- 9 Blanco River recharge basin
- PRECIPITATION STATION
- STREAM-GAGING STATION
- BASIN BOUNDARY
- SUBBASIN DIVIDE
- X Location of key observation well
- UNGAGED AREAS
- A Leona River
- B Blanco Creek
- C Little Blanco and Nolton Creeks
- D Ranchero Creek
- E Parkers and Live Oak Creeks
- F Between Hondo Creek and Medina River basin
- G San Geronimo and Leon Creeks
- H Sink, Purgatory, and Alligator Creeks

STREAM-GAGING STATIONS

NO.	STA. NO.	NAME
1.	08190500	West Nueces River near Brackettville, Tex.
2.	08190000	Nueces River at Laguna, Tex.
3.	08192000	Nueces River below Uvalde, Tex.
4.	08196000	Dry Frio River near Reagan Wells, Tex.
5.	08195000	Frio River at Concan, Tex.
6.	08197500	Frio River below Dry Frio River near Uvalde, Tex.
7.	08198000	Sabinal River near Sabinal, Tex.
8.	08198500	Sabinal River at Sabinal, Tex.
9.	08201500	Seco Creek at Miller Ranch near Utopia, Tex.
10.	08202700	Seco Creek at Rowe Ranch near D'Hanis, Tex.
11.	08200000	Hondo Creek near Tarpley, Tex.
12.	08200700	Hondo Creek at King Waterhole near Hondo, Tex.
13.	08179000	Medina River near Pipe Creek, Tex.
14.	08179100	Red Bluff Creek near Pipe Creek, Tex.
15.	08178700	Salado Creek (upper station) at San Antonio, Tex.
16.	08183900	Cibolo Creek near Boerne, Tex.
17.	08185000	Cibolo Creek at Selma, Tex.
18.	08169000	Comal River at New Braunfels, Tex.
19.	08167000	Guadalupe River at Comfort, Tex.
20.	08167600	Rebecca Creek near Spring Branch, Tex.
21.	08167500	Guadalupe River near Spring Branch, Tex.
22.	08166800	Guadalupe River at Sattler, Tex.
23.	08168500	Guadalupe River above Comal River at New Braunfels, Tex.
24.	08171000	Blanco River at Wimberley, Tex.
25.	08171300	Blanco River at Kyle, Tex.
26.	08172400	Plum Creek at Lockhart, Tex.

FIGURE 2.-Drainage basins and data-collection sites in the San Antonio area

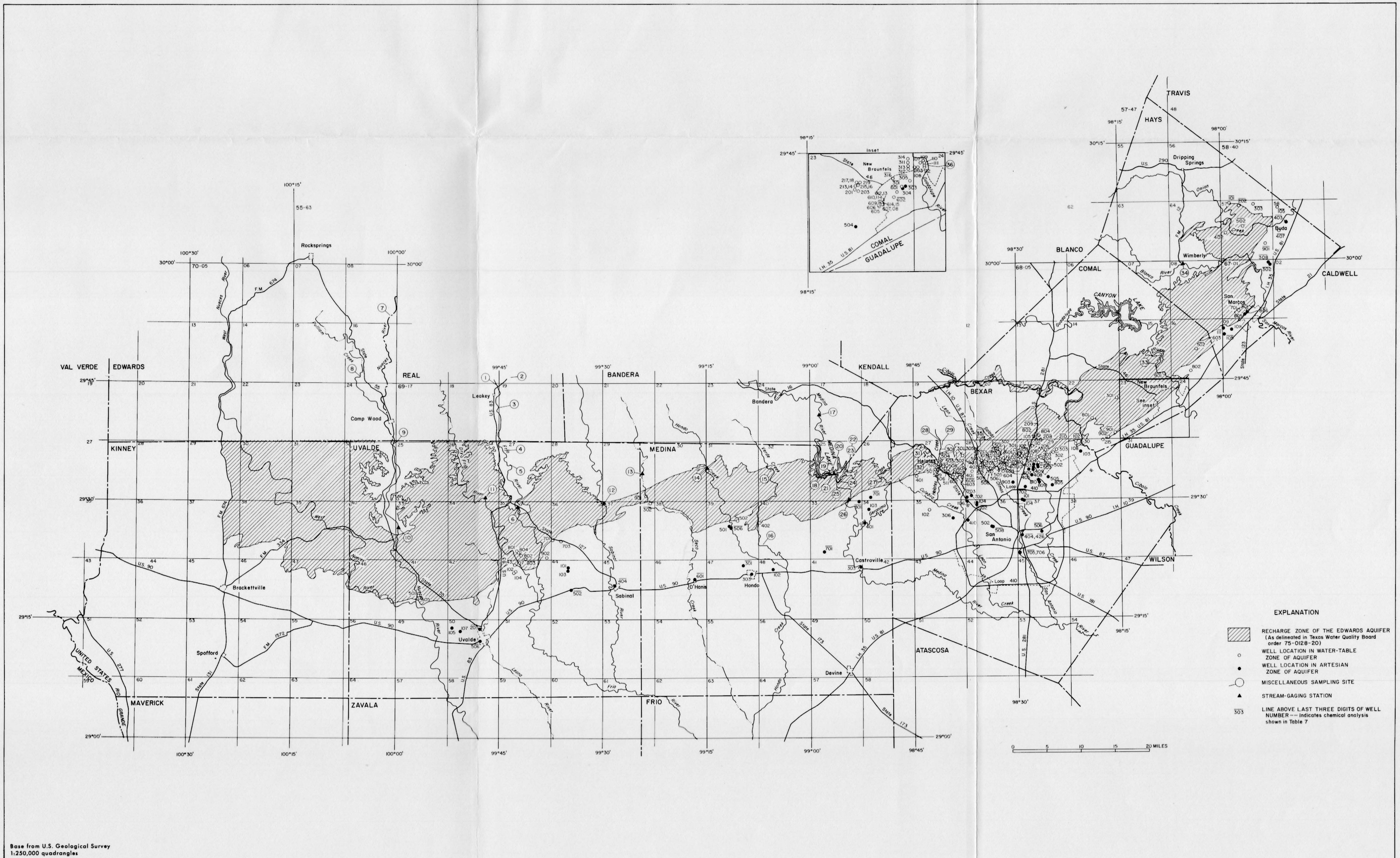


FIGURE 4.-Locations of water-quality data-collection sites in the San Antonio area