UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
Ground Water Branch

WATER LEVELS IN OBSERVATION WELLS IN SANTA BARBARA COUNTY, CALIFORNIA, IN 1959

Prepared in cooperation with the
Santa Barbara County Water Agency

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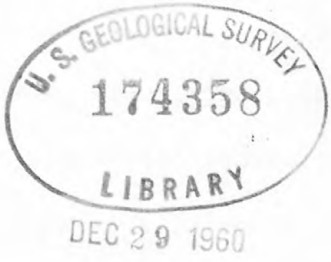

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WATER LEVELS IN OBSERVATION WELLS IN SANTA BARBARA COUNTY, CALIFORNIA, IN 1959

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INTRODUCTION

Investigation of the ground-water resources of Santa Barbara County was continued during 1959 by the U. S. Geological Survey in cooperation with the Santa Barbara County Water Agency. Monthly water-level measurements were made in 203 wells, in 8 of which automatic water-level recorders were operated. Earlier measurements, covering the period 1941 through 1955, have been published in Geological Survey Water-Supply Papers; those for 1956, 1957, and 1958 have been released locally in duplicated form. Water-Supply Paper 1068 contains tabulated descriptions of 2,246 wells in existence in 1942 in the various ground-water basins of the county. The same publication also contains many water-level measurements made prior to 1942 by the city of Santa Barbara, Santa Maria Valley Water Conservation District, San Joaquin Power Division of the Pacific Gas and Electric Co., Union Sugar Co., Union Oil Co., and other organizations and individuals.

Comprehensive reports on the geology and ground-water resources of the Santa Ynez River basin (Upson and Thomasson, 1951, and Wilson, 1959), the south-coast basins (Upson, 1951), the Santa Maria Valley area (Worts, 1951),

and the Cuyama Valley (Upson and Worts, 1951) have been published as Water-Supply Papers 1107, 1467, 1108, 1000, and 1110-B, respectively. A report on stream runoff and ground-water storage capacity of the Santa Ynez River valley (Troxell and Wilson, 1952) was released to the open file in October 1952.

In addition to the water-level measurements made by the Geological Survey in 1959, measurements made by the Santa Maria Valley Water Conservation District are included in this report. Not included in this report are miscellaneous measurements made by the Geological Survey in wells along the middle reach of the Santa Ynez River between Cachuma Dam and Rucker Crossing.

The following table shows the scope of the observation-well program in Santa Barbara County in 1959.

Distribution of observation wells in Santa Barbara County in 1959

Area	Number of observation wells: Established	Discontinued	at 1/ year end	Number of recording gages
Carpinteria Basin	1	1	21	0
Goleta Basin	1	0	29	0
Santa Ynez River valley	1	3	77	5
San Antonio Creek valley	0	0	5	0
Santa Maria Valley	2	0	49	3
Cuyama Valley	1	0	22	0
Total	6	4	203	8

1/ Includes wells equipped with recording gages.

GENERAL HYDROLOGIC CONDITIONS

The climate in Santa Barbara County is characterized by a short rainy season in the winter, and a long dry season in the summer when nearly all the streams are dry. The extended lack of rainfall during the summer requires the use of supplemental water to sustain the crops of the valleys. Nearly all the water used for irrigation is pumped from the ground-water reservoirs which lie beneath the agricultural lands. In most areas domestic supplies also are obtained from these underground reservoirs, although the city of Santa Barbara and the Montecito County Water District depend largely upon surface storage accumulated behind Cachuma, Gibraltar, and Juncal Dams on the Santa Ynez River. Emergency wells, however, are used by these communities during periods of extended drought.

Replenishment of the ground-water reservoirs is dependent almost entirely on winter precipitation. Between 1945 and 1951 precipitation was below normal and, as a result, replenishment of most of the basins of the county was insufficient to meet requirements. Ground-water levels during this period were drawn down substantially, but the above-average rainfalls in the winters of 1951-52 and 1957-58 caused a temporary cessation of the downward trend (figs. 1 and 2).

The south-coast communities have united to solve their water problem with the building of the Cachuma dam and distribution system for the conservation of floodwaters of the Santa Ynez River. Since April 1956 water from Cachuma Reservoir has been supplied to the south-coast communities to augment their water supplies.

The construction of Twitchell Dam on the Cuyama River near the Santa Maria Valley was completed in 1958. Regulated releases of flood-waters impounded by this dam will be used to recharge the ground-water reservoir that lies beneath the Santa Maria plain.

PRECIPITATION

Precipitation in Santa Barbara County occurs principally as rainfall, which differs greatly from place to place because of the alinement of the several mountain ranges with respect to storm movements. The county has an average annual precipitation ranging from about 6 inches in the Cuyama Valley to 30 inches or more in the higher parts of the Santa Ynez and San Rafael Mountains.

Data obtained from the U. S. Weather Bureau indicate below-average precipitation during the water year ending September 30, 1959. At Santa Barbara, in the southeast corner of the county, 8.80 inches (9.16 inches below the 92-year average) was recorded; and at Santa Maria, in the northwest corner of the county, 7.85 inches (6.09 inches below the 74-year average) was recorded.

Figures 1 and 2 show precipitation at 3 stations, water-level fluctuations in 10 wells, and the cumulative departure from normal precipitation at Santa Maria. These graphs illustrate the relation of ground-water levels to precipitation. During "wet" years, water levels rise and indicate ground-water replenishment. During "dry" years, water levels decline and indicate ground-water depletion.

FLUCTUATIONS OF WATER LEVELS

From about 1945 through 1951 water levels throughout Santa Barbara County declined steadily as a result of increased water use and below-average precipitation. Ground-water depletion during the years 1945-51 was more serious in some basins than in others, depending upon the magnitude of the difference between withdrawals and replenishment. In the winter of 1951-52 above-average precipitation wholly or almost wholly replenished those basins in which overdraft was small, whereas in the basins of large overdraft only a small part of the depleted storage was restored. Precipitation and streamflow were below-average in 1953, 1954, and 1955, and water levels in Santa Barbara County generally resumed the downward trend that prevailed during 1945-51. In the winter of 1955-56 precipitation over Santa Barbara County ranged from near normal to above normal, and ground-water levels in general reflected these differences in precipitation. Below-normal precipitation in the winter of 1956-57 was followed by a generally downward trend of water levels. The above-normal precipitation during the winter of 1957-58 caused a general reversal of this trend. Precipitation was below-average during the winter of 1958-59, and water levels in the Carpinteria Basin, the Santa Ynez Valley, and the Cuyama Valley resumed their decline; at the same time water levels in the Goleta Basin, the San Antonio Creek Valley, and the Santa Maria Valley continued to rise.

The following discussion of water-level fluctuations is by ground-water basins, because the basins are separated hydrologically. Figures 3 to 9 show the location of observation wells in Santa Barbara County.

Carpinteria Basin

Water levels in the Carpinteria basin generally declined slightly from the spring of 1958 to the spring of 1959. The change in water levels in the area of confined water that underlies the central and western part of the basin ranged from a rise of about 11 feet to a decline of about 6 feet, and had an average decline of about 1 foot. In the area of recharge along the base of the foothills water levels in the spring of 1959 ranged from about 14 feet higher to 18 feet lower than in the spring of 1958. The average decline was about 4 feet. The hydrograph of well 4/25-27Q2 (fig. 1) is indicative of water-level fluctuations in the area of confined water. Figure 3 shows the location of observation wells in the Carpinteria Basin.

During 1959 the collection of water samples for chloride determination as an indication of sea-water contamination was continued. The analyses of samples collected from 3 key wells showed no significant increase in chloride concentration from 1958 to 1959.

Goleta Basin

Water levels in the Goleta Basin rose in 1959. In the confined-water area that underlies nearly all the central alluvial plain water levels in the spring of 1959 averaged about 4 feet higher than in the spring of 1958. Within the recharge area along the base of the foothills water levels in the spring of 1959 ranged from about 5 feet higher to 5 feet lower than in the spring of 1958, and averaged about 2 feet higher. In the western end of the Goleta Basin, an area that is hydrologically separate from the rest of the basin, the water levels in the spring of 1959 averaged about 18 feet higher than in the spring of 1942 (beginning of record). Although water levels in the central part of the Goleta Basin rose in 1959, they were still about 5 feet lower than in the spring of 1942.

The hydrographs of wells 4/28-17H11 and 4/28-9A3 (fig. 1) show water-level fluctuations in the area of confined water and the area of recharge, respectively. Figure 4 shows the location of observation wells in the Goleta Basin. In this basin, as in the Carpinteria Basin, periodic sampling of water from selected wells along the coast revealed no increase in chloride concentration from 1958 to 1959.

Santa Ynez River Valley

In this report the Santa Ynez River valley area has been divided into three subdivisions: the Lompoc plain, the alluvial deposits between San Lucas Bridge and Robinson Bridge, and the Santa Ynez upland. In each of these subdivisions the fluctuations of water levels are distinct to some degree.

The well locations in the Santa Ynez River valley are given on two illustrations: Figure 5 shows the Lompoc plain and a part of the alluvial deposits adjacent to the river upstream from Robinson Bridge, and figure 6 shows the remainder of the alluvial deposits upstream to San Lucas Bridge and the Santa Ynez upland to the north.

Lompoc Plain

In the spring of 1959 water levels beneath the Lompoc plain ranged from about 2 feet higher to about 3 feet lower than in the spring of 1958. Water levels in the recharge area at the eastern end and along the southern fringe of the Lompoc plain ranged from 2 feet higher to 4 feet lower during this period. In the area of confined water the levels declined an average of about 2 feet from the spring of 1958 to the spring of 1959.

The hydrographs of wells 7/35-26J3 and 26J4 (fig. 1) show water-level fluctuations in the area of confined water and those of wells 7/34-27F4 and 27L1 (fig. 1) show fluctuations in the area of recharge.

Collection of water samples for the determination of chloride concentration as an indication of sea-water contamination was continued during 1959. Analysis of these samples showed no increase in chloride; in fact, the chloride concentration has not changed significantly over the past 18 years of record.

Between San Lucas Bridge and Robinson Bridge

In the spring of 1959 water levels in wells near the river between San Lucas Bridge and Robinson Bridge ranged from no change to 5 feet lower than in the spring of 1958 and averaged about 2 feet lower.

Santa Ynez Upland

Water levels in the observation wells on the Santa Ynez upland (fig. 6) declined, on the average, about 1 foot from the spring of 1958 to the spring of 1959. Net changes in water levels ranged from 46 feet above to 6 feet below the levels during the spring of 1958. The hydrograph of well 6/30-6A1 (fig. 1), considered to be representative for the upland, shows a water level rise of about 1 foot from the spring of 1958 to the spring of 1959. Water levels in the spring of 1959 were, on the average, about 27 feet lower than the levels in the spring of 1942.

San Antonio Creek Valley

In general, water levels measured in wells in the central part of the San Antonio Creek valley (fig. 7) showed a rise of about 2 feet from the spring of 1958 to the spring of 1959. Individual wells ranged from no change to a rise of 6 feet during this period.

Santa Maria Valley

The Santa Maria Valley area (fig. 8) is the largest agricultural district in Santa Barbara County. It consists of the broad alluvial plain adjacent to the Santa Maria River, the elevated terrace areas to the north and south of this plain, and the relatively small alluvial plain adjacent to the Sisquoc River.

In the confined-water area, which underlies the western half of the Santa Maria plain, water levels rose slightly less than 1 foot in 1959. The average water levels in this area in the spring of 1959 were about 21 feet lower than the levels in the spring of 1942. The hydrograph of well 10/35-7F1 (fig. 2) is typical of the wells along the seaward edge of the confined-water area and shows that water levels in this part of the area have declined about 8 feet since 1942.

The water levels in the remainder of the plain (recharge area) in the spring of 1959 ranged from about 18 feet higher to 22 feet lower than in the spring of 1958 and averaged slightly more than 1 foot higher. Water levels in the recharge area in the spring of 1959 averaged 18 feet lower than in the spring of 1942. The hydrographs of wells 9/33-2A1, 10/34-14B2, and 14E3 (fig. 2) are typical of the wells in the recharge area. Beneath the Sisquoc plain, upstream from Fugler Point, the rise in water level was slightly more than in the recharge area and averaged about 2 feet for the year.

The chloride content of well waters at the western end of the Santa Maria Valley remained virtually the same as in previous years and averaged less than 100 parts per million. Water levels near the coast remained above sea level, and consequently there was no immediate threat of sea-water encroachment.

Cuyama Valley

The Cuyama Valley (fig. 9) is a broad semiarid valley in the extreme northeastern part of Santa Barbara County. Prior to 1946 there was no electric power in the valley, and this tended to restrict intensive irrigation. Consequently, water levels in the principal agricultural area near the western end of the valley remained fairly static until heavy withdrawals began in 1946. Hydrographs for wells 10/25-30F1 and 30P1 (fig. 2) show the start of the decline in water level and its continuation in subsequent years because of the increased irrigation pumping and subnormal precipitation.

The subnormal precipitation in 1957, coupled with increased pumping, resulted in a continued lowering of the water table. The heavy rainfall during 1957-58 reversed this trend over much of the valley, but in areas of intense pumping the water levels continued to decline. For the period 1958-59 rainfall was again subnormal, resulting in a continued decline of water levels. From the spring of 1958 to the spring of 1959 water-level fluctuations ranged from a rise of about 18 feet in one well south of Ventucopa to a decline of about 17 feet in a well southeast of Cuyama; the average change in water level from the spring of 1958 to the spring of 1959 was a decline of about 1 foot. Since 1946, when electric power was brought into the Cuyama Valley, the net decline in water levels in observation wells has averaged about 27 feet.

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RECORDS OF WATER LEVELS

The following records of water levels in observation wells in Santa Barbara County are arranged in numerical order within each of the groundwater basins. The well numbers indicate their locations according to the rectangular system of subdivision of public land.

For example, in the number 4/25-19F4, the part of the number preceding the bar indicates the township (T. 4 N.), the part between the bar and the hyphen shows the range (R. 25 W.), the digits between the hyphen and the letter indicate the section (sec. 19), and the letter indicates the 40-acre subdivision of the section as shown in the accompanying diagram.

Within each 40-acre tract the wells are numbered serially, as indicated by the final digit of the number. Thus, well 4/25-19F4 is the fourth well to be listed in the SE¼NW¼ sec. 19, T. 4 N., R. 25 W.

All water-level measurements in the following records are expressed in feet below land-surface datum, which is a fixed plane of reference for each well and approximates the average land surface at the well.

Water levels near month end, 1959: The actual dates of U. S. Geological Survey water-level measurements [1/] in the several valleys in 1959 are listed below.

Month	Carpinteria	Goleta	Santa Ynez	San Antonio	Santa Maria	Cuyama
Jan.	29	29	29, 30	26	26, 27	28
Feb.	25	25	26, 27	26	26	27
Mar.	Apr. 3	Apr. 3	26, 27	31	25, 31	30
Apr.	30	30	29, 30	28	28	24
May	29	29	25, 26	27	27	25
June	29	25	23, 24	22	22	24
July	31	31	28, 31	27	28	29
Aug.	24	24	25, 28	25	25	26
Sept.	25	25	25, 29	30	30	28
Oct.	29	29	27, 28	28	28	29
Nov.	25	25	25	24	24	23
Dec.	30	30	22, 23	29	29	30

1/ Water-level measurements by the Santa Maria Valley Water Conservation District are made on the first of the month (Jan., Apr., July, and Oct.).

Table 1.--Records of water levels in 1959

All water-level measurements in the following records are expressed in feet below land-surface datum, which is a fixed plane of reference for each well and approximates the average land surface at the well.

Depth: Depths of wells given in whole feet were reported by owners, drillers, or others; depths given in feet and tenths were measured below land surface by the Geological Survey.

Use: Dm domestic, Ir irrigation, Ps public supply, S stock, Ob observation, Id industrial, Un unused.

Altitude: Altitudes given in whole feet were interpolated from U. S. Geological Survey topographic maps having 10-, 20-, or 50-foot contour intervals. Altitudes given to the nearest tenth of a foot were determined by spirit leveling.

Footnotes:

a Pumping.
b Pumped recently.
c Nearby well being pumped.
d Nearby well pumped recently.
e Estimated.
f Dry.
g Measured by Santa Maria Valley Water Conservation District.
h Tape measurement.
j Recharging.
k Record from water-level recorder.
m Electric sounder measurement.
n Reported.

Table 1.--(Continued) Water levels near month end, 1959

CARPINTERIA BASIN

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 4 N., R. 25 W.												
19F4	89.58	88.87	92.95	88.85	91.89	92.52	93.60	93.89	96.84	96.02	95.55	99.42
J5	56.56	54.64	53.29	-	c61.05	c61.77	c63.17	c63.41	70.30	68.55	70.71	68.45
20L4	126.74	111.36	113.88	113.52	114.38	c124.65	128.40	128.87	c132.29	c131.11	c131.03	129.48
21N3	-	57.76	53.70	53.51	c59.77	c61.09	c63.84	c64.31	c70.60	62.85	63.24	-
21R1	107.90	107.25	107.95	108.17	105.35	105.49	105.05	105.21	107.73	105.77	105.41	110.30
22R1	c88.43	64.79	c91.49	70.70	c91.46	c93.37	c100.70	c101.09	c108.72	c107.31	c106.30	99.80
25L1	14.77	13.60	14.29	14.50	16.06	19.13	25.03	25.09	(j)	(j)	(j)	52.90
26A1	286.54	284.60	283.06	283.67	284.13	284.88	286.89	286.99	290.91	289.21	288.39	293.42
C2	283.33	281.30	279.58	280.38	280.89	c282.61	285.47	285.61	291.04	289.48	288.61	295.79
27Q2	-	135.72	-	136.42	137.92	-	-	-	c136.80	-	-	152.36
27R2	149.22	147.51	146.88	147.09	148.35	148.81	156.15	156.81	c163.95	162.11	161.57	161.05
28J1	105.83	100.17	(a)	104.25	102.88	103.33	(a)	(a)	(a)	110.79	110.61	115.90
M1	64.90	63.04	61.13	60.91	61.86	62.41	79.55	78.59	79.63	78.77	78.89	77.90
29D1	19.82	18.41	17.78	17.93	24.05	24.71	27.78	27.88	28.71	28.29	27.49	31.55
L1	11.91	10.33	9.43	14.42	15.53	16.38	22.24	22.88	23.99	23.43	22.51	23.13
29R1	45.23	44.48	56.89	46.30	-	57.05	62.70	-	65.32	64.70	64.42	55.74
30D1	3.53	3.35	3.30	3.17	3.22	3.63	9.50	7.89	8.11	5.39	4.41	12.42
D2	No measurements made in 1959				-	-	-	-	-	-	-	-
35A3	-	-	-	64.34	59.53	60.39	77.90	78.18	86.62	84.11	83.33	91.27
B1	-	-	-	Discontinue	-	-	-	-	-	-	-	-
35M5	(a)	(a)	(a)	(a)	(a)	(a)	-	-	-	-	-	184.70
T. 4 N., R. 26 W.												
23A2	-	47.90	48.92	48.07	48.48	48.99	52.03	52.33	58.72	57.91	57.61	50.20

Table 1.--(Continued) Summary of data on observation wells

CARPINTERIA BASIN

Well No.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 4 N., R. 25 W.										
19F4	M. F. Lewis	250	Un	106	1941	19	4-58	71.38	3-50	123.40
J5	Lyman and Young	100	Un	55	1941	19	4-42	39.41	9-51	92.95
20L4	Carp. County Wtr. Dist.	264	Un	111	1949	11	3-55	95.90	9-51	153.17
21N3	E. Bonebakker	305	Ir	59	1941	8	6-41	29.62	11-54	90.70
R1	Ben Moore	468	Un	127	1941	19	6-45	64.47	11-51	126.08
22R1	A. E. Pruner	130	Un	211	1941	10	4-44	11.26	12-57	113.75
25L1	Solari and Schweizer	124	Un	227	1941	10	4-57	6.25	12.49	82.54
26A1	Moses Mesa Assoc. Co.	480	Un	420	1946	14	2-46	230.09	11-55	387.00
C2	Shepard Mesa Mut. Wtr. Co.	450	Un	432	1946	14	5-46	226.10	11-51	353.99
27Q2	A. F. Heimlich	198	Un	127	1941	19	4-45	92.86	9-51	175.42
27R2	W. H. Yule	421	Ir	132	1941	19	4-45	94.96	9-51	182.23
28J1	W. C. and C. A. Catlin	175	Dm, Ir	89	1919	24	6-19	23.00	11-53	124.64
M1	Mrs. A. Baylor	96	Un	57	1941	19	4-45	19.84	8-51	Dry
29D1	H. W. Sturmer	147	Dm, Ir	17	1928	22	4-42	1.48	9-51	57.28
L1	A. P. Salzgeber	110	Un	18	1950	10	5-58	7.43	9-51	51.24
29R1	Carp. Union High School	176	Un	32	1941	19	4-42	8.67	8-55	68.85
30D1	Sandyland Beach Club	210	Un	7	1938	20	5-38	Flowing	11-51	48.73
D2	Calif. Highway Dept.	93	Un	18	1949	11	6-58	6.63	9-51	41.39
35A3	E. H. Bates	145.8	Un	148	1941	7	3-45	28.34	11-50	106.96
B1	E. R. Dickower	140	Dm	193	1941	19	3-45	19.18	9-51	134.18
35M5	Jack Rose	542	Dm, Ir	215	1949	7	5-49	164.90	11-56	194.49
T. 4 N., R. 26 W.										
23A2	Frank Wymond	330	Un	63	1941	14	4-50	45.44	4-51	85.00

Table 1.--(Continued) Water levels near month end, 1959

GOLETA BASIN

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 4 N., R. 27. W.												
6Q9	242.31	241.96	241.42	239.21	240.50	241.36	248.15	239.27	239.08	237.97	237.59	236.89
7J2	(a)	93.80	92.69	78.33	(a)	(a)	92.06	92.21	91.91	91.11	90.79	94.88
N1	120.15	114.77	112.29	111.46	111.96	112.02	108.57	108.09	107.29	107.91	106.79	104.40
18R2	(a)	-	(a)	34.61	35.29	35.71	(a)	(a)	34.61	34.81	-	36.18
21B1	45.43	44.90	44.82	44.89	44.92	45.34	45.24	45.12	44.89	44.79	44.70	44.73
T. 4 N., R. 28 W.												
2N2	35.16	18.09	22.78	27.28	32.40	34.69	37.20	37.51	40.40	42.16	43.60	45.39
3E2	13.83	13.69	13.78	14.49	c22.27	c22.54	21.83	c21.91	c23.89	16.28	15.68	15.54
J3	38.46	38.91	38.19	39.22	39.78	39.61	39.43	39.29	40.69	40.14	39.89	36.47
M3	106.90	105.50	106.68	107.94	107.84	107.81	109.35	109.01	109.36	108.91	108.69	108.90
Q2	134.69	133.29	c131.26	132.64	c134.50	c134.79	c138.61	c139.11	c140.56	c140.87	c137.22	c134.11
4F4	40.36	39.99	39.43	40.08	73.73	60.64	74.22	78.41	68.62	50.36	48.71	52.10
Q2	85.31	-	-	83.81	-	84.29	85.56	86.01	89.64	e91.4	e91.2	97.90
5N3	-	-	29.29	29.61	29.38	29.12	29.37	29.61	30.19	29.81	29.61	28.98
R4	-	-	59.48	59.78	59.65	59.38	59.03	59.17	60.09	(a)	60.39	57.09
8N3	36.44	35.86	35.00	35.95	(a)	(a)	(a)	36.42	(a)	(a)	(a)	38.67
9A3	53.76	52.12	50.76	51.98	c52.81	c53.33	55.54	55.69	57.21	c59.05	58.61	60.40
E1	65.06	64.01	63.37	63.76	63.80	63.91	65.69	65.78	66.01	65.81	66.16	64.53
10F1	-	70.94	69.76	69.94	71.08	71.10	71.38	71.68	72.13	72.00	71.91	72.63
11K4	105.18	103.81	103.01	103.39	103.91	103.86	100.15	100.51	102.11	101.39	101.01	-
12B1	-	-	127.30	126.04	-	126.36	126.49	126.17	-	-	127.08	123.40
12P5	-	-	-	164.75	164.23	164.61	-	165.94	164.53	163.81	163.09	-
14C1	63.66	61.81	61.51	61.73	62.28	62.12	61.53	62.08	62.81	62.48	62.11	-
16J2	63.48	61.35	60.05	60.10	(a)	(a)	(a)	(a)	(a)	(a)	(a)	66.07
L1	-	38.95	38.11	38.26	46.61	b46.44	60.22	60.51	61.99	51.07	49.98	42.82
17R1	k11.29	k9.91	k+0.17	-	-	-	h+0.78	h1.61	h15.59	h19.29	h18.59	h19.47

Table 1.--(Continued) Summary of data on observation wells

GOLETA BASIN

Well NO.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 4 N., R. 27 W.										
6Q9	D. J. Davis	Unknown	Un	325	1954	6	12-59	236.89	11-54	248.72
7J2	Allen E. Rogers	187	Ir	230	1941	5	4-59	78.33	9-56	99.10
N1	La Cumbre Estates Corp.	Unknown	Un	185	1957	3	12-59	104.40	10-57	129.79
18R2	Hillside House Fndn.	Unknown	Dm	110	1956	4	9-25	34.61	3-56	47.98
21B1	City of Santa Barbara	454	Un	68	1948	12	2-48	37.04	10-51	99.58
T. 4 N., R. 28 W.										
2N2	Santa Barbara County	100	Un	177.65	1943	17	4-54	12.94	11-51	61.34
3E2	Peter Cavaletto	75	Un	116.73	1941	19	4-41	8.57	10-48	45.17
J3	Hollister Estate	194	Un	137	1955	5	1-56	35.09	11-55	42.04
M3	L. W. Fowler	171	Un	118.40	1947	13	2-59	105.50	9-49	145.24
Q2	A. J. Haverland	360	Un	120.57	1943	17	1-48	84.69	9-51	154.64
4F4	W. C. Laird	Unknown	Un	145	1955	5	4-59	39.43	8-59	78.41
Q2	R. S. Rowe	325	Un	88.45	1941	19	4-45	61.24	6-50	117.92
5N3	Sellar Bullard	278	Un	83.40	1941	7	12-59	28.98	9-41	60.08
R4	F. J. Ewing	154	Ir	57.15	1937	9	6-37	40.00	9-54	78.70
8N3	Shrode-Nelson Produce	Unknown	Id	28	1955	5	4-59	35.00	4-55	51.00
9A3	L. M. Cavaletto	125	Un	84.10	1941	19	3-43	38.60	9-54	71.51
E1	A. T. Spaulding	310	Dm	43.58	1941	18	6-41	27.64	10-54	78.66
10F1	J. S. Edwards	459	Un	79.90	1932	23	4-43	56.44	7-56	103.27
11K4	Giovanni Cavalli	297	Dm, Ir	67	1947	13	3-47	67.72	8-54	119.95
12B1	St. Vincent's School	189	Dm, Ir	203	1941	7	1-42	75.41	11-55	139.34
12P5	La Cumbre Mut. Wtr. Co.	Unknown	Un	100	1956	2	11-59	163.09	8-59	165.94
14C1	Do	524	Un	40	1944	6	1-44	57.01	4-56	83.10
16J2	J. Ciampi & Sons	458	Ir	26	1946	7	5-46	39.45	11-54	96.49
L1	Oakley-Bonnetti	276	Ir	22	1954	6	3-59	38.11	9-59	61.99
17R1	USGS, Pac. Light. Gas Sup.	158	Ob	4.91	1955	5	7-59	h+1.44	12-59	h19.47

Table 1.--(Continued) Water levels near month end, 1959

GOLETA BASIN--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 4 N., R. 28 W.--(Continued)												
17R2	K25.88	k24.93	k22.12	k25.35	k23.37	k23.56	k24.47	k23.36	k26.86	k29.81	k28.62	h27.96
18G2	+1.41	+1.68	+1.83	+1.83	+1.83	+1.83	15.88	15.34	14.46	1.94	c5.90	0.08
T. 4 N., R. 29. W.												
13K2	24.10	23.50	22.20	23.16	22.59	20.37	27.56	26.93	-	-	23.77	23.18
14A3	No measurements made in 1959 -				-	-	-	-	-	-	-	-

Table 1.--(Continued) Summary of Data on observation wells

GOLETA BASIN--(Continued)

Well No.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 4 N., R. 28 W.--IContinued)										
17R2	USGS, Pac. Light. Gas Sup.	155	Ob	7.87	1955	5	3-59	k22.11	8-55	k39.83
18G2	T. B. Bishop Co.	395	Un	7	1941	19	4-59	+1.83	8-45	45.99
T. 4 N., R. 29 W.										
13K2	T. B. Bishop Co.	378	Un	24	1941	17	6-59	20.37	9-50	55.59
14A3	Ben Romer	160	Un	51	1941	19	12-58	56.41	7-51	87.46

Table 1.--(Continued) Water levels near month end, 1959

SANTA YNEZ RIVER VALLEY

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 6 N., R. 30 W.												
3A1	108.07	108.55	108.88	(a)	113.43	114.43	(a)	(a)	(a)	122.00	-	120.47
6A1	87.29	85.83	b93.79	93.35	95.35	(a)	95.15	(a)	(a)	103.71	100.54	98.56
7K6	47.57	46.68	46.60	47.18	50.79	54.35	49.07	49.61	50.08	50.38	50.43	50.28
9N1	38.05	37.85	(a)	37.77	a38.30	a37.88	37.79	37.80	37.77	37.71	38.90	(a)
15A1	11.37	11.35	11.75	11.58	11.76	11.93	12.19	12.17	12.39	b12.77	12.54	a13.71
21B2	13.50	13.86	12.72	13.34	13.69	13.67	14.57	(a)	(a)	(a)	17.88	16.24
29E1	h14.39	k13.25	k13.48	k13.34	k13.96	k16.09	k18.86	k20.52	k21.51	k21.58	-	k22.84
T. 6 N., R. 31 W.												
2K1	34.48	33.85	41.04	(a)	39.06	(a)	(a)	(a)	46.54	46.45	43.33	(a)
13D1	116.97	116.57	b133.79	116.59	121.89	125.47	117.70	119.61	(a)	118.80	123.03	(a)
15A5	-	-	-	-	15.48	14.52	15.29	17.47	17.49	-	17.30	17.03
16N2	12.27	11.31	13.25	(a)	(a)	(a)	(a)	23.39	24.19	24.44	(a)	23.71
17F1	22.29	22.20	(a)	23.71	24.18	27.31	(a)	31.01	(a)	(a)	29.08	(a)
T. 6 N., R. 32 W.												
2Q1	(a)	(a)	(a)	58.07	b57.75	(a)	(a)	b58.56	58.73	(a)	(a)	(a)
6K1	(a)	(a)	20.37	20.55	20.80	21.02	(a)	21.31	(a)	(a)	(a)	b21.57
9A1	No measurements made in 1959				-	-	-	-	-	-	-	-
11N1	33.15	b32.30	b32.38	29.53	(a)	32.12	(a)	32.11	33.59	35.21	35.86	35.41
16P3	45.07	43.80	(a)	45.26	45.34	49.69	(a)	47.57	(a)	(a)	(a)	48.74
18H1	31.46	31.08	(a)	32.17	33.08	33.94	(a)	(a)	36.61	37.75	(a)	(a)
T. 6 N., R. 33 W.												
8J1	43.34	41.90	43.36	44.09	44.58	44.58	44.84	45.40	45.69	45.77	-	-
9P1	39.00	38.57	38.49	c44.93	-	42.15	c55.50	47.15	43.98	42.79	42.58	42.65
11M1	(a)	7.08	7.23	8.66	(a)	11.52	12.08	11.07	11.00	10.96	11.46	11.36

Table 1.--(Continued) Summary of data on observation wells

SANTA YNEZ RIVER VALLEY

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 6 N., R. 30 W.										
3A1	L. Hourihan	407	Ir	720	1954	6	5-58	103.63	6-57	137.38
6A1	Sam Torrence	262	Ir	665.29	1942	18	4-43	42.02	9-57	105.30
7K6	Valley Pump & Supply Co.	100	Un	611	1950	8	3-52	40.44	6-59	54.35
9N1	San Lucas Ranch	160	S	660.01	1941	19	9-44	30.71	1-56	41.54
15A1	Rex Clark	35+	S	600	1942	7	8-58	8.27	5-57	17.02
21B2	Bryant Myers	70	Ir	498.75	1952	8	10-57	11.01	9-57	25.15
29E1	Rancho Juan y Lolita	52	Un	465.02	1933	27	3-41	h7.90	5-51	k24.00
T. 6 N., R. 31 W.										
2K1	Sam de la Cuesta	75	Dm, Ir	627	1942	14	1-42	23.02	9-57	52.42
13D1	Mrs. W. E. Parker	170	Dm	608	1941	19	3-42	102.58	6-59	125.47
15A5	Louis Janin	160	Ir	652.94	1950	10	3-52	6.96	9-57	26.60
16N2	H. G. Petersen	47	Id	366.29	1941	13	5-41	5.93	10-59	24.44
17F1	John R. Orton	43	Dm	362.90	1931	30	4-41	14.80	8-57	31.90
T. 6 N., R. 32 W.										
2Q1	Wallace Dine	115	Dm	359.46	1949	11	4-52	56.20	3-51	59.91
6K1	Manuel P. Domingos	74	Dm, S	383.55	1932	22	7-32	10.50	10-53	22.90
9A1	Owen E. Hollister	58	Dm	307.67	1932	27	1-42	26.20	1-56	39.55
11N1	Doty and Mercer	50	Dm	332.74	1932	13	4-52	24.77	12-54	36.80
16P3	Channing Peake	70	Ir	293.18	1941	19	2-43	41.82	10-51	50.18
18H1	T. J. Donovan	50	Dm, S	267.09	1932	22	10-41	25.80	11-51	40.16
T. 6 N., R. 33 W.										
8J1	Hollister Estate	62	Un	200.57	1941	18	4-58	37.38	9-51	52.14
9P1	Do	83	Un	203.03	1932	28	4-41	21.80	11-50	54.61
11M1	William Rennie	65	Ir	203.82	1947	12	2-50	4.29	11-51	16.39

Table 1.--Continued

Water levels near month end, 1959

SANTA YNEZ RIVER VALLEY--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 6 N., R. 34 W.												
1P1	38.18	36.98	(a)	38.42	38.26	42.19	42.83	41.40	41.48	41.96	41.99	41.11
4F3	44.80	44.04	51.80	47.11	47.75	c48.53	c49.44	c49.60	c50.19	c49.92	52.80	52.75
6C2	(a)	(a)	b57.37	b65.08	(a)	a66.52	(a)	(a)	(a)	(a)	60.68	(a)
T. 7 N., R. 30 W.												
33M2	170.45	168.74	169.48	c171.75	175.34	180.39	180.69	c183.73	183.77	183.54	182.06	179.38
T. 7 N., R. 31. W.												
23P1	(a)	35.21	37.44	31.42	31.09	37.58	(a)	36.52	35.72	34.84	33.65	b34.04
25L1	86.76	(a)	90.77	(a)	c92.33	88.70	(a)	91.97	b102.15	(a)	(a)	(a)
36L2	68.81	68.20	(a)	72.07	75.37	77.22	78.07	(a)	(a)	-	84.98	(a)
T. 7 N., R. 33 W.												
30C1	c158.93	c158.75	c158.94	158.90	159.03	163.36	163.61	159.18	159.18	159.01	c159.30	158.99
T. 7 N., R. 34 W.												
9H3	12.08	11.62	-	-	12.22	12.30	-	12.12	12.09	11.91	12.29	11.83
12E1	h305.32	k305.42	k305.29	h305.32	h305.52	h305.34	k305.37	k306.00	k305.63	k305.57	k305.73	K305.67
14F1	200.88	200.33	200.50	200.73	c201.27	c202.43	c202.71	c201.67	c201.75	(c)	201.57	c201.87
21E1	k20.25	k19.77	k20.34	k21.96	k22.53	k23.23	k24.12	k24.52	k24.55	k24.55	k24.70	k24.75
22J1	32.35	31.53	32.78	33.17	32.42	32.17	31.99	35.08	32.75	32.95	34.40	33.97
22Q4	15.22	13.20	14.91	14.84	14.83	14.84	14.83	14.82	14.84	-	14.95	-
24E2	109.17	108.66	115.51	109.37	115.94	117.60	117.67	110.75	111.50	111.79	109.44	109.47
N1	(a)	(a)	60.60	(a)	62.30	(a)	(a)	63.45	62.42	(a)	(a)	(a)
26H3	k43.29	k42.82	k44.18	k45.58	k45.31	k45.25	k45.76	k45.96	k45.53	k45.80	k45.26	k44.85
27A5	9.11	9.25	7.96	8.61	9.03	9.70	10.21	10.28	10.43	11.48	12.07	12.59
F4	33.93	33.95	32.28	(a)	(a)	(a)	(a)	(a)	38.68	(a)	38.39	38.09

Table 1.--(Continued) Summary of data on observation wells

SANTA YNEZ RIVER VALLEY--(Continued)

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 6 N., R. 34 W.										
1P1	Hollister Estate	164	Ir	150.37	1949	11	4-58	36.14	2-57	45.42
4F3	City of Lompoc	81	Un	95	1950	10	4-58	42.95	4-51	58.17
6C2	Bank of America	185	Dm, S	99.80	1930	27	2-43	47.88	4-51	76.78
T. 7 N., R. 30 W.										
33M2	J. B. Kelley	318	Un	746.35	1953	7	3-54	160.21	9-59	183.77
T. 7 N., R. 31 W.										
23P1	F. L. Mattei	141	Dm, Ir	821.86	1942	18	8-42	8.09	5-58	83.15
25L1	Richter and Lee	200	Dm	806	1942	18	4-44	55.83	9-57	101.60
36L2	D. B. Kilbourne	230	Dm, Ir	720.62	1942	18	4-43	16.54	11-59	84.98
T. 7 N., R. 33 W.										
30C1	John Valla	183	Un	235.24	1941	19	2-46	150.41	7-59	163.61
T. 7 N., R. 34 W.										
9H3	USGS, Union Oil Co.	103	Ob	275	1948	12	10-48	9.32	8-56	12.81
12E1	Do do	385	Ob	385.83	1949	11	6-49	h301.70	8-59	k306.00
14F1	Signature Homes Inc.	250	Un	268.32	1947	13	10-47	194.94	8-58	203.00
21E1	USGS, Dept. of the Army	145	Ob	82	1948	12	4-49	h17.97	8-51	k25.02
22J1	Santa Barbara County	73.3	Un	98.92	1941	4	3-41	21.04	5-57	36.05
22Q4	USGS, A. Scolari	24	Ob	82.72	1947	13	4-57	12.26	8-50	(f)
24E2	J. F. de Costa	191	Ir	178.25	1938	9	11-38	103.17	6-59	117.60
N1	State of California	183	Ir	130.4	1930	14	5-30	51.2	8-59	63.45
26H3	R. C. Lilley	123	Un	112.92	1950	10	3-50	h40.13	10-57	h47.78
27A5	USGS, L. H. Schuyler	19	Ob	79.19	1955	5	4-58	6.56	12-55	15.78
F4	J. Maxwell Wilson	178	Ir	96.79	1952	8	2-43	31.91	1-52	40.68

Table 1.--(Continued) Water levels near month end, 1959

SANTA YNEZ RIVER VALLEY--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 7 N., R 34 W.--(Continued)												
28H2	30.40	28.27	34.77	34.27	c33.73	c34.95	c35.54	c36.50	c36.88	c37.39	c36.86	c35.60
R1	10.01	8.60	11.98	16.28	15.18	16.54	16.84	17.41	16.17	16.40	-	16.12
R2	11.66	9.98	11.08	11.32	12.17	12.69	12.86	13.47	13.67	13.85	-	13.77
29E4	22.14	20.41	(a)	34.68	(a)	35.90	36.37	35.18	30.39	30.59	31.75	31.32
29E5	20.39	18.97	c20.91	21.89	21.95	21.98	22.68	23.08	23.36	23.47	23.71	23.55
30L3	17.53	16.44	19.11	22.77	22.33	22.33	23.32	23.68	23.25	23.54	23.29	23.11
L4	19.28	18.20	24.48	-	30.23	31.31	(a)	34.90	25.27	(a)	(a)	25.83
31C2	20.23	21.00	27.24	(a)	32.74	32.35	(a)	29.23	26.37	26.69	27.86	27.08
C3	(f)	(f)	(f)	c9.03	13.32	14.84	(f)	(f)	(f)	(f)	(f)	(f)
32A1	(a)	(a)	36.25	Destroyed		-	-	-	-	-	-	--
A4	26.40	25.73	26.34	Destroyed		-	-	-	-	-	-	-
P5	26.78	26.64	26.59	28.88	29.44	29.65	29.37	29.19	29.48	29.70	30.13	30.77
33E1	-	-	31.64	-	33.53	37.91	38.59	38.28	35.55	35.85	35.19	34.97
34H1	40.70	39.61	40.08	44.27	Destroyed	-	-	-	-	-	-	-
35F2	18.12	14.27	18.38	18.83	19.58	22.66	23.14	23.89	27.17	27.46	28.60	28.24
F6	39.54	-	39.47	40.36	41.26	43.86	46.17	47.37	48.08	c48.96	49.57	49.06
F16	40.99	-	37.03	41.87	42.94	46.00	47.50	48.62	49.19	(a)	50.39	49.94
P1	37.99	-	37.96	39.09	41.30	41.55	41.73	45.60	-	-	-	-
T. 7 N., R. 35 W.												
20J1	6.96	5.97	6.91	7.98	8.18	8.40	8.87	9.18	9.25	9.35	9.31	8.74
22J1	8.90	7.77	10.36	b13.30	14.34	(a)	17.18	14.89	(a)	(a)	(a)	14.83
M1	-	-	5.43	7.85	7.70	8.08	8.51	8.66	8.09	8.21	7.98	7.63
23E2	12.89	11.71	13.69	18.21	16.15	(a)	-	(a)	16.27	16.57	15.88	15.24
E4	18.38	17.25	18.33	18.35	18.36	c18.30	-	c18.23	18.18	18.36	18.10	17.53

Table 1.--(Continued) Summary of data on observation wells

SANTA YNEZ RIVER VALLEY--(Continued)

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 7 N., R. 34 W.--(Continued)										
28H2	Tom M. Parks	78	Un	89.55	1930	28	3-43	21.74	5-51	43.14
R1	W. A. Burpee	146	Un	69.68	1930	30	4-41	2.09	3-51	24.31
R2	USGS, W. A. Burpee	16	Ob	69.50	1943	17	3-44	2.70	12-51	(f)
29E4	W. H. Sanor	176	Ir	67.71	1945	15	4-59	18.36	3-51	42.26
29E5	USGS, W. H. Sanor	27	Ob	67.74	1945	15	10-45	18.21	6-51	(f)
30L3	USGS, Union Sugar Co.	27	Ob	58.79	1945	15	12-46	15.83	5-51	(f)
L4	Union Sugar Co.	190	Ir	59	1951	9	4-59	15.23	3-53	36.10
31C2	Do	Unknown	Ir	64.72	1941	14	4-41	8.56	9-48	46.38
C3	USGS, Union Sugar Co.	28	Ob	64.68	1947	13	4-53	12.24	12-51	21.97
32A1	Mrs. May Clemens	180	Ir	79.99	1939	17	4-41	7.6	4-57	48.97
A4	USGS, O. F. Benn	31	Ob	79.28	1947	13	12-47	24.21	7-50	(f)
P5	USGS, J. Bodger & Sons	37	Ob	77.60	1947	13	2-49	24.47	5-51	35.50
33E1	M. Balaam	138	Un	68.47	1949	11	12-50	22.49	4-55	39.42
34H1	Johns-Manville Corp.	160	Un	112.10	1941	19	5-41	h33.46	7-51	h56.71
35F2	Valla Bros.	140	Un	100.33	1930	30	3-41	9.53	11-51	32.92
F6	USGS, M. Schuyler	55	Ob	119.46	1943	17	2-44	35.91	8-45	(f)
F16	M. Schuyler	173	Ir	119.5	1947	13	3-59	37.03	7-51	61.15
P1	W. P. & N. L. Robinson	51	Un	121.3	1931	27	3-41	29.32	3-48	51.90
T. 7 N., R. 35 W.										
20J1	Dept. of the Army	108	Un	19.07	1930	30	3-58	3.55	7-30	31.27
22J1	Union Sugar Co.	185	Ir	32.04	1930	23	3-58	6.01	4-51	24.03
M1	Dept. of the Army	180	Ir	28.84	1947	13	3-52	2.87	7-50	18.51
23E2	Union Sugar Co.	212	Ir	36.59	1930	24	2-59	11.71	7-49	33.06
E4	USGS, Union Sugar Co.	28	Ob	36.90	1947	13	3-52	12.22	7-48	22.67

Table 1.--(Continued) Water levels near month end, 1959

SANTA YNEZ RIVER VALLEY--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 7 N., R. 35, W.												
23J2	14.22	13.17	(a)	(a)	(a)	21.69	-	(a)	19.37	(a)	(a)	-
24J1	24.78	23.29	24.54	25.32	26.07	26.54	27.20	c27.84	c28.31	28.59	c28.76	28.63
K2	18.63	17.43	(a)	29.34	(a)	(a)	31.58	(a)	26.29	26.71	26.77	26.51
K4	19.04	17.81	(a)	29.71	c35.42	c35.42	31.92	c36.98	26.90	27.11	(a)	(a)
25F5	-	-	(a)	24.24	25.48	22.57	28.92	26.70	19.61	20.39	21.75	21.47
25F6	10.37	9.31	c3.70	8.07	8.52	9.80	11.29	12.39	12.79	13.13	13.40	13.11
26F1	7.65	6.89	13.27	15.07	c22.45	c19.53	16.08	20.20	11.55	14.29	12.15	12.06
F3	7.89	6.64	7.40	8.02	c8.86	c7.86	7.20	6.82	7.00	7.17	8.84	8.11
J4	13.29	7.33	c21.27	18.93	b25.14	18.78	26.43	22.09	b16.67	bc21.30	15.67	c19.85
27C3	5.35	4.65	5.96	9.82	8.32	8.39	8.05	9.08	8.50	8.98	9.42	9.07
28H2	0.75	2.23	2.10	2.52	2.65	2.68	2.60	2.57	2.42	-	-	-
35A3	6.77	7.11	8.44	14.40	16.25	11.72	(a)	15.70	(a)	16.37	13.77	(a)
A4	7.87	4.09	7.44	8.51	9.68	10.08	7.66	11.96	8.90	9.11	12.13	c10.05
C4	2.09	1.93	2.25	-	3.75	4.65	3.46	3.14	3.27	2.86	2.57	3.45
36J3	k18.50	k18.22	k20.62	k23.71	-	k25.30	k26.92	k24.69	k23.66	k23.88	k24.29	k23.75
36J6	18.82	18.25	23.30	28.22	26.79	27.93	27.70	26.05	24.44	24.68	24.94	24.63
J7	-	-	19.29	22.45	22.14	23.09	24.22	23.79	23.05	23.13	23.04	23.08

Table 1.--(Continued) Summary of data on observation wells

SANTA YNEZ RIVER VALLEY--(Continued)

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 7 N., R. 35 W.--(Continued)										
23J2	Union Sugar Co.	158	Ir	43.58	1947	13	3-58	11.40	7-50	31.11
24J1	Tom M. Parks	171	Un	59.40	1941	16	5-41	18.26	4-48	35.83
K2	A. B. Henning	180	Ir	51	1941	12	5-41	14.59	7-59	31.58
K4	do	Unknown	Dm	51	1953	6	2-59	17.81	7-59	31.92
25F5	Union Sugar Co.	180	Ir	47.44	1944	11	1-53	10.13	7-59	28.92
25F6	USGS, Union Sugar Co.	19	Ob	47.70	1945	15	5-46	6.09	11-51	15.90
26F1	Union Sugar Co.	186	Ir	36.84	1941	14	4-41	0.32	7-49	27.09
F3	USGS, Union Sugar Co.	18	Ob	34.70	1947	13	4-58	3.91	7-49	13.29
J4	Santa Barbara County	141	Ps	40.86	1947	13	2-59	7.33	7-51	33.63
27C3	County Nat'l Bank & Trust	158	Un	28.42	1932	14	4-41	0.64	6-39	24.14
28H2	Dept. of the Army	67	S	38.55	1930	13	1-53	Flowing	4-31	22.45
35A3	Gus Aquistapace	100	Ir	45.58	1947	13	4-58	5.41	7-50	25.81
A4	USGS, Gus Aquistapace	23	Ob	45.88	1947	13	1-56	1.58	10-51	16.95
C4	USGS, Dept. of the Army	9	Ob	36.68	1947	13	3-54	1.65	10-55	4.82
36J3	Ted Holden	102	Ob	58.76	1930	20	4-41	h4.56	4-55	k35.05
36J6	do	102	Ir	58.50	1947	13	4-58	15.11	7-50	38.15
J7	USGS, Denholm Seed Co.	32	Ob	58.50	1947	13	12-57	19.00	7-50	31.32

Table 1.--(Continued) Water levels near month end, 1959

SAN ANTONIO CREEK VALLEY

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 8 N., R. 32 W.												
30K2	6.61	5.74	6.84	6.42	7.55	11.84	15.38	14.63	11.00	11.23	10.67	9.39
35Q1	141.82	m110.4	143.30	141.42	141.87	144.51	143.79	145.30	145.51	149.03	149.51	148.69
T. 8 N., R. 33 W.												
20Q1	c30.08	29.97	30.62	30.03	28.27	28.29	c28.34	c34.88	30.08	30.54	30.18	29.57
R1	(a)	28.69	(a)	28.92	(a)	28.97	(a)	33.62	(a)	30.80	(a)	29.42
T. 8 N., R. 34 W.												
23B1	c16.05	c15.92	c19.47	c20.47	c17.38	c17.06	c20.04	c17.88	c17.54	c17.45	c17.36	17.04

Table 1.--(Continued) Summary of data on observation wells

SAN ANTONIO CREEK VALLEY

Well no.	Owner or used	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 8 N., R. 32 W.										
30K2	John Parma	100	Un	555	1943	7	2-44	+1.16	8-55	-34.00
35Q1	Frank F. Barham	250	S	740	1943	4	12-43	118.46	12-57	168.38
T. 8 N., R. 33 W.										
20Q1	Virginia Barca Estate	351	Un	410	1943	17	2-44	4.27	4-47	38.15
R1	do	75	Dm	410	1943	17	1-47	21.20	9-50	36.32
T. 8 N., R. 34 W.										
23B1	Josephine Harris Estate	150	Un	310	1943	16	2-44	12.19	3-53	20.30

Table 1.--(Continued) Water levels near month end, 1959

SANTA MARIA VALLEY

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 9 N., R. 32 W.												
7N1	72.61	72.10	71.24	g71.84	(a)	(a)	bg79.61	(a)	(a)	84.03	(a)	83.33
17G1	35.73	(a)	(a)	(a)	(a)	(a)	(a)	a60.55	(a)	(a)	(a)	53.07
18H1	50.30	50.03	(a)	(a)	(a)	(a)	(a)	58.65	59.11	60.41	58.61	58.79
T. 9 N., R. 33 W.												
2A1	64.86	64.40	63.88	63.94	64.50	65.37	g65.67	(a)	67.51	80.67	73.02	72.93
T. 9 N., R. 34 W.												
3N1	c183.25	c183.24	c183.21	c183.06	c183.49	c183.71	c184.03	c184.15	c184.31	c184.17	c184.03	c184.25
6K2	83.63	87.56	86.68	88.55	89.29	89.51	89.94	89.63	89.72	90.04	89.86	90.24
8H1	m142.8	m142.4	(a)	(a)	m144.1	m144.6	m156.2	(a)	(a)	(a)	(a)	m144.3
T. 10 N., R. 33 W.												
7P1	110.92	111.10	112.51	(a)	(a)	118.23	(a)	(a)	(a)	124.21	123.55	(a)
R1	103.89	104.97	106.62	108.24	108.91	109.89	111.15	112.34	112.79	113.19	113.36	113.51
18G1	g103.50	-	-	g106.10	-	-	bg113.30	-	-	bg117.31	-	-
19B1	m121.9	m115.7	m115.5	g120.80	m134.5	m135.9	bg120.00	-	(a)	g127.38	(a)	(a)
20H1	85.86	86.05	(a)	89.28	(a)	(a)	95.74	-	(a)	(a)	97.11	97.98
20L1	m128.2	m125.4	cm129.5	-	m131.6	m139.9	m154.6	m146.6	m145.5	h144.00	h143.74	h142.73
21F5	81.33	81.94	82.62	84.53	86.10	88.06	91.06	92.37	93.00	94.38	95.56	96.14
27G1	g52.70	-	(a)	bg56.07	-	-	bg64.70	-	-	g71.60	-	-
K2	58.22	-	(a)	(a)	(a)	(a)	-	a95.80	(a)	75.38	(a)	-
28A1	60.66	61.37	(a)	63.08	63.72	(a)	g67.29	-	68.69	bg76.00	78.79	(a)
30G1	g183.75	-	-	bg191.50	-	-	bg198.31	-	-	bg198.50	-	-
H1	g185.00	-	-	bg186.00	-	-	bg195.00	-	-	g193.00	-	-
M1	g187.62	-	194.98	g194.00	-	-	g200.00	-	-	g195.68	-	-
R1	g175.00	-	(a)	176.52	-	-	bg181.70	-	-	bg181.50	-	-
33H1	h229.09	m228.7	(a)	(a)	(a)	m231.5	h232.16	-	(a)	h240.15	h239.85	h234.74

Table 1.--(Continued) Summary of data on observation wells

SANTA MARIA VALLEY

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 9 N., R. 32 W.										
7N1	Valerio Tognazzini	204	Ir	422	1924	26	4-44	24.62	10-51	113.95
17G1	J. A. Waugh	107	Dm	447	1941	19	4-43	11.22	6-50	66.33
18H1	M. L. Gracia	456	Ir	443	1950	6	12-58	47.91	12-50	81.27
T. 9 N., R. 33 W.										
2A1	Francis J. Calderon	168	Ir	378.72	1930	27	6-51	23.62	1-58	86.73
T. 9 N., R. 34 W.										
3N1	City of Santa Maria	248	Un	258	1932	13	6-37	g142	9-55	181.89
6K2	Associated Oil Co.	139	Un	161	1942	10	3-42	59.22	8-57	91.39
8H1	Richfield Oil Corp.	200	Dm	222	1955	5	3-58	119.73	7-59	m156.2
T. 10 N., R. 33 W.										
7P1	P. T. Bonetti	365	Ir	260	1951	9	9-58	107.42	10-51	132.72
R1	do	200	Un	270	1942	6	2-42	78.45	9-57	125.96
18G1	La Brea Securities Co.	436	Ir	273	1939	21	7-43	g66.75	4-51	g132.10
19B1	Owen T. Rice	307	Ir	275	1927	32	9-43	73.31	6-51	157.46
20H1	M. J. Santos	251	Ir	300	1929	17	8-38	56.88	12-50	129.17
20L1	Francis J. Calderon	300	Un	294	1942	4	1-42	78.54	7-59	m154.6
21F5	Frank Donovan	262	Un	312	1958	2	11-58	80.14	12-59	96.14
27G1	L. H. Adam	272	S, Ir	338	1923	28	7-38	g26.00	7-51	g119.50
K2	Newhall Land Co.	255	Ir	344	1941	7	6-58	46.55	12-50	108.74
28A1	Security Farms	374	Ir	325	1929	31	7-38	g31.99	9-51	114.52
30G1	Lillian Cook	676	Ps	320	1951	9	1-53	g170.42	10-57	g193.60
H1	do	758	Ir	310	1951	9	4-52	g151.51	10-59	g193.00
M1	Hancock Oil Co.	500	Id	310	1951	9	1-53	g174.00	7-58	g201.58
R1	Sheehy Bros.	544	Ir	335	1951	9	1-53	g165.38	10-51	g184.00
33H1	E. L. Sargent	290	Dm, S	402	1947	13	1-47	179.50	10-59	240.15

Table 1.--(Continued) Water levels near month end, 1959

SANTA MARIA VALLEY--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 10 N., R. 34 W.												
2R1	113.88	114.87	115.47	g115.36	(a)	(a)	g114.51	-	(a)	124.64	(a)	-
4R1	119.28	113.96	(a)	(a)	(a)	115.51	(a)	(a)	(a)	128.26	127.34	-
6N1	91.68	89.85	(a)	g94.14	(a)	(a)	bg96.90	(a)	(a)	bg98.65	(a)	97.93
9F1	g118.59	-	-	g116.35	-	-	g119.77	-	-	-	-	-
14E2	148.42	146.38	147.42	c147.55	c149.03	c150.15	c151.18	c153.68	c154.03	155.40	155.26	154.63
20H1	113.95	112.14	112.79	113.51	114.67	116.27	118.10	118.86	119.51	118.65	118.19	117.48
22R1	145.19	-	(a)	g144.48	(a)	(a)	bg145.95	-	(a)	bg144.45	(a)	(a)
23H1	143.69	141.61	(a)	bg153.40	(a)	(a)	bg156.20	-	(a)	173.47	160.85	150.16
24K2	g143.30	-	-	g142.20	-	-	g143.50	-	-	g140.91	-	-
K3	bg133.20	-	-	bg138.92	-	-	bg141.74	-	-	bg140.63	-	-
29N1	-	121.55	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	-
T. 10 N., R. 35 W.												
7F1	11.65	10.55	(a)	g18.10	19.31	21.09	g23.48	22.66	21.91	20.93	20.08	14.49
G3	21.35	20.00	21.11	26.75	22.47	24.41	34.80	32.44	31.59	31.62	31.27	24.58
9F1	39.54	38.14	(a)	47.44	(a)	(a)	bg60.63	54.98	54.61	52.97	52.61	44.97
N1	g45.42	-	-	bg54.90	-	-	bg55.88	-	-	g59.45	-	-
12M1	bg85.84	-	-	bg83.70	-	-	bg88.75	-	-	bg87.87	-	-
21B1	35.56	32.99	(a)	g47.62	(a)	(a)	g51.22	(a)	(a)	g47.26	(a)	39.75
24B1	85.42	82.50	(a)	88.51	93.05	(a)	g93.38	(a)	c94.71	94.35	94.06	89.96

Table 1.--(Continued) Summary of data on observation wells

SANTA MARIA VALLEY--(Continued)

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 10 N., R. 34 W.										
2R1	Gnacio Apalatequi	294	Ir	230	1929	25	6-43	69.16	12-57	142.50
4R1	Gerald Donovan	186	Ir	192	1930	17	3-45	72.89	8-57	138.70
6N1	Grisingher & Signorelli	190	Ir	152	1930	26	4-43	g48.40	7-57	g102.85
9F1	Mrs. Annie E. Preisker	224	Ir	189	1942	18	4-44	g70.62	10-57	g135.32
14E2	City of Santa Maria	182	Ps	225	1942	5	1-42	104.10	10-57	162.94
20H1	Leo Tognazzini	246	Ir	182	1930	18	3-45	66.57	8-56	148.50
22R1	George J. Wheat	252	Id	217	1931	24	3-45	93.19	1-58	157.70
23H1	Marion B. Rice	218	Ir	242	1929	25	4-43	g100.65	11-59	160.85
24K2	Union Oil Co.	760	Id	244	1946	9	6-46	g63.00	10-57	g145.40
K3	do	792	Id	245	1947	9	1-47	g71.00	3-48	g179.25
29N1	Pat Mahoney	117	Dm, Ir	170	1956	4	3-58	123.11	11-58	139.16
T. 10 N., R. 35 W.										
7F1	E. Filipponi et al	249	Dm, Ir	48	1929	30	12-43	Flowing	7-56	g24.55
G3	John Jenkins	286	Un	53	1942	18	2-44	3.24	6-58	36.40
9F1	Waller Flower Seed Co.	198	Ir	88	1930	26	5-42	13.61	8-57	59.91
N1	Agnes F. King	285	Ir	87	1930	23	4-45	g13.30	10-59	g59.45
12M1	E. and G. Le Roy	210	Ir	138	1924	27	1-24	23.43	1-57	g87.35
21B1	Thomas J. Brucker	310	Ir	94	1938	22	2-44	7.85	8-55	57.66
24B1	Union Sugar Co.	290	Ir	144	1934	23	2-44	42.55	9-55	109.10

Table 1.--(Continued)

Water levels near month end, 1959

SANTA MARIA VALLEY--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 11 N., R. 34 W.												
19Q1	(a)	(a)	(a)	(a)	(a)	(a)	h285.80	m272.1	(a)	(a)	(a)	h282.00
30Q1	bg57.90	-	-	bg70.80	-	-	g87.46	-	-	bg93.00	-	-
34J2	78.51	80.92	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	-
T. 11 N., R. 35 W.												
20E1	12.78	12.07	12.27	g17.00	(a)	(a)	g25.64	19.48	18.68	18.64	18.13	15.59
25H1	62.72	62.93	(a)	(a)	(a)	(a)	(a)	(a)	(a)	66.81	66.01	67.12
26M2	56.10	54.49	c61.55	c60.56	c61.39	c62.11	c74.40	c73.49	c69.98	c70.49	c70.99	c60.76
28M1	g41.75	-	-	bg23.14	-	-	bg52.66	-	-	g44.82	-	-
33G1	41.70	40.40	40.89	bg49.26	51.77	52.48	bg56.29	(a)	(a)	53.03	52.73	(a)
35A1	g70.59	-	-	g68.87	-	-	g72.90	-	-	g74.97	-	-

Table 1.--(Continued) Summary of data on observation wells

SANTA MARIA VALLEY--(Continued)

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 11 N., R. 34 W.										
19Q1	Frank Silva	315	Dm	305	1947	13	1-47	h223.77	6-57	m255.4
30Q1	Mary Bolton	180	Ir	148	1930	25	5-41	34.59	10-57	g99.50
34J2	L. O. Fox	214	Ir	148	1955	5	11-58	73.04	11-55	104.42
T. 11 N., R. 35 W.										
20E1	Union Sugar Co.	525	Ir	49	1938	22	2-44	Flowing	7-56	g31.40
25H1	M. J. Mendoza	129	Un	135	1942	19	6-44	33.42	11-57	84.13
26M2	Sam Tognazzini	324	Un	106	1930	16	11-44	28.92	11-57	67.12
28M1	Union Sugar Co.	376	Ir	77	1934	23	12-43	11.09	7-57	g55.70
33G1	H. E. Pezzoni	141	Ir	91	1930	25	2-44	16.49	9-58	60.90
35A1	Elmer A. Runels	195	Ir	123	1925	24	2-25	24.50	10-57	g83.35

Table 1.--(Continued) Water levels near month end, 1959

CUYAMA VALLEY

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 7 N., R. 24 W.												
13C2	20.78	19.06	18.93	19.15	19.40	19.75	22.08	23.30	24.47	25.42	25.98	26.15
T. 8 N., R. 24 W.												
8L1	102.93	103.35	c104.05	102.95	c104.68	103.35	103.30	104.27	c104.72	105.47	c107.75	105.34
T. 9 N., R. 24 W.												
19Q1	70.97	68.91	68.48	68.09	68.15	c68.58	67.99	68.14	67.98	71.94	67.70	67.32
33M1	171.70	170.73	169.90	169.73	168.73	168.61	167.90	167.90	167.81	167.57	167.69	167.43
T. 9 N., R. 25 W.												
2N1	152.67	149.28	148.18	148.27	150.11	150.89	154.94	154.33	154.49	158.24	-	160.67
13B1	116.71	115.91	104.06	(a)	103.61	(a)	106.54	104.36	(a)	(a)	(a)	(a)
T. 9 N., R. 26 W.												
1F2	(a)	-	(a)	285.29	286.37	287.11	(a)	(a)	(a)	(a)	(a)	288.68
4J1	m293.1	m293.2	m293.2	293.11	293.35	293.41	293.08	293.22	293.39	293.27	293.12	293.30
T. 10 N., R. 25 W.												
8P1	83.67	83.90	-	83.74	83.88	-	86.45	90.40	90.84	91.99	-	92.57
22E1	159.35	156.02	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	-
24E1	232.43	m232.5	234.53	234.47	234.60	234.30	235.36	239.11	239.03	236.19	237.72	236.78
28F1	170.43	172.71	-	(a)	(a)	(a)	-	(a)	(a)	(a)	(a)	(a)
29P1	168.22	170.00	(a)	(a)	(a)	(a)	(a)	180.96	180.14	(a)	(a)	(a)
30P1	126.10	-	124.48	124.84	138.66	133.62	135.25	135.49	135.94	128.98	129.59	127.52
T. 10 N., R. 26 W.												
4R1	25.56	23.00	(a)	(a)	(a)	(a)	51.42	(a)	(a)	43.45	(a)	34.36
16Q1	44.91	43.81	46.53	47.35	48.69	52.44	54.57	56.11	55.17	57.02	56.61	49.77
22A1	21.45	21.27	22.97	25.83	27.67	28.77	29.42	30.48	28.36	27.17	26.28	25.44
27N1	140.76	138.44	(a)	(a)	138.76	138.84	(a)	139.05	139.14	139.22	(a)	139.34

Table 1.--(Continued) Summary of data on observation wells

CUYAMA VALLEY

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 7 N., R. 24 W.										
13C2	Ventura County	165	Dm	3,418	1950	10	4-58	18.86	5-51	47.23
T. 8 N., R. 24 W.										
8L1	Hickey Bros. Land Co.	290	Un	3,050	1950	10	6-58	93.10	2-58	153.09
T. 9 N., R. 24 W.										
19Q1	Sam Knittle	90	Un	2,784.19	1941	19	5-44	16.13	1-58	83.58
33M1	Walter C. Barnes	233	Un	3,049	1950	10	10-59	167.43	3-58	194.15
T. 9 N., R. 25 W.										
2N1	Julius Broden	254	Un	2,550	1953	7	3-53	139.14	12-59	160.67
13B1	William B. Barry	120	Dm	2,700	1952	8	4-58	100.91	1-59	116.71
T. 9 N., R. 26 W.										
1F2	M. L. Moore	Unknown	Dm	2,600	1958	2	4-59	285.29	12-59	288.68
4J1	J. G. James	327	Un	2,575	1946	6	8-46	185.00	4-55	312.27
T. 10 N., R. 25 W.										
8P1	Hub Russell	Unknown	Un	2,393	1942	5	6-42	31.34	12-59	92.57
22E1	E. H. Mettler & Son	659	Dm,Ir	2,368	1946	3	4-46	n90.00	10-58	171.99
24E1	do	600	Un	2,470	1950	9	5-50	198.00	10-55	239.11
28F1	A. V. Cattle & Milling	292	Ir, S	2,340	1955	3	4-55	136.60	2-59	172.71
29P1	Oscar Schaeffer	403	Ir	2,370	1952	8	2-53	122.36	8-59	180.96
30P1	Kirschenmann & Presseler	400	Un	2,340	1955	5	1-57	109.55	5-59	138.66
T. 10 N., R. 26 W.										
4R1	Russell Bros.	Unknwon	Dm,Ir	2,110	1955	4	4-55	18.60	7-59	51.42
16Q1	H. S. Russell	Unknown	Un	2,205	1954	6	2-54	33.33	9-55	71.50
22A1	William C. Ramelli	423	Un	2,200	1941	19	3-44	+0.51	8-54	-37.40
27N1	Ray Calhoon	Unknown	Dm, S	2,490	1955	3	4-55	133.27	1-59	140.76

Table 1.--(Continued) Water levels near month end, 1959

CUYAMA VALLEY--(Continued)

Well No.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
T. 10 N., R. 27 W.												
11A2	22.43	21.85	c30.51	c30.98	c31.31	c35.99	c54.24	c54.48	c55.39	c49.87	38.18	29.65
C1	24.18	23.82	(a)	b31.30	31.86	(a)	35.44	40.56	41.01	39.73	38.11	27.04
H1	21.26	20.48	(a)	(a)	(a)	(a)	(a)	(a)	(a)	-	-	-
12R1	54.28	52.66	51.51	b59.13	59.21	b65.65	(a)	72.99	70.21	71.93	71.48	64.40

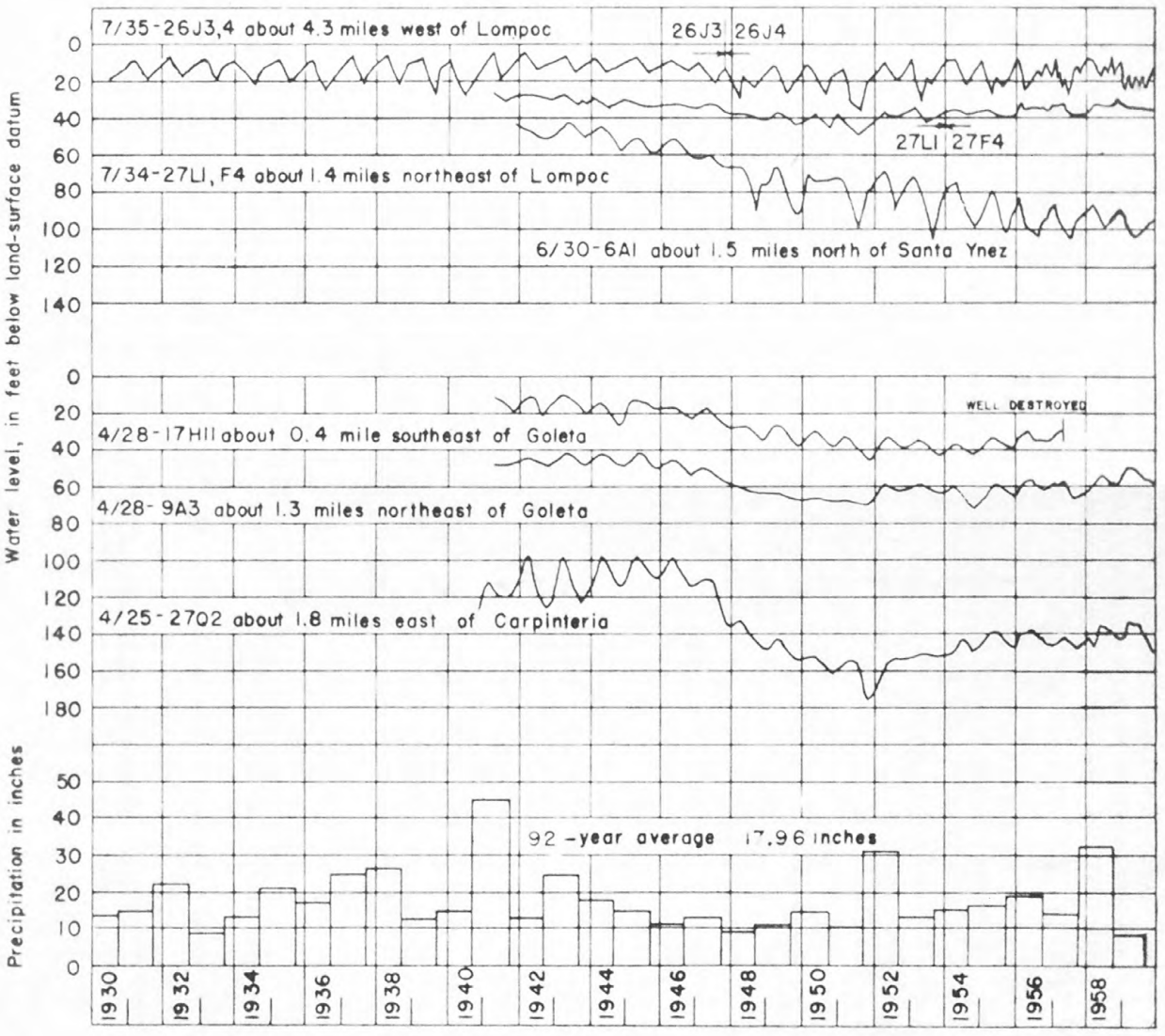
Table 1.--(Continued) Summary of data on observation wells

CUYAMA VALLEY--(Continued)

Well no.	Owner or user	Depth (feet)	Use	Altitude (feet)	Year first measured	Years of record	Highest water level: Date Mo-Yr	Highest water level: Water level	Lowest water level: Date Mo-Yr	Lowest water level: Water level
T. 10 N., R. 27 W.										
11A2	Walt Smith	533	Un	1,980	1956	4	2-59	21.85	11-59	38.18
C1	do	378	Dm, Ir	1,963	1942	14	4-58	19.01	9-54	41.38
H1	do	Unknown	Ir	1,995	1954	6	2-59	20.48	1-58	56.88
12R1	Wm. Kirschenmann Estate	131	Dm, Ir	2,036	1941	19	4-42	38.58	8-59	72.99

U. S. GEOLOGICAL SURVEY

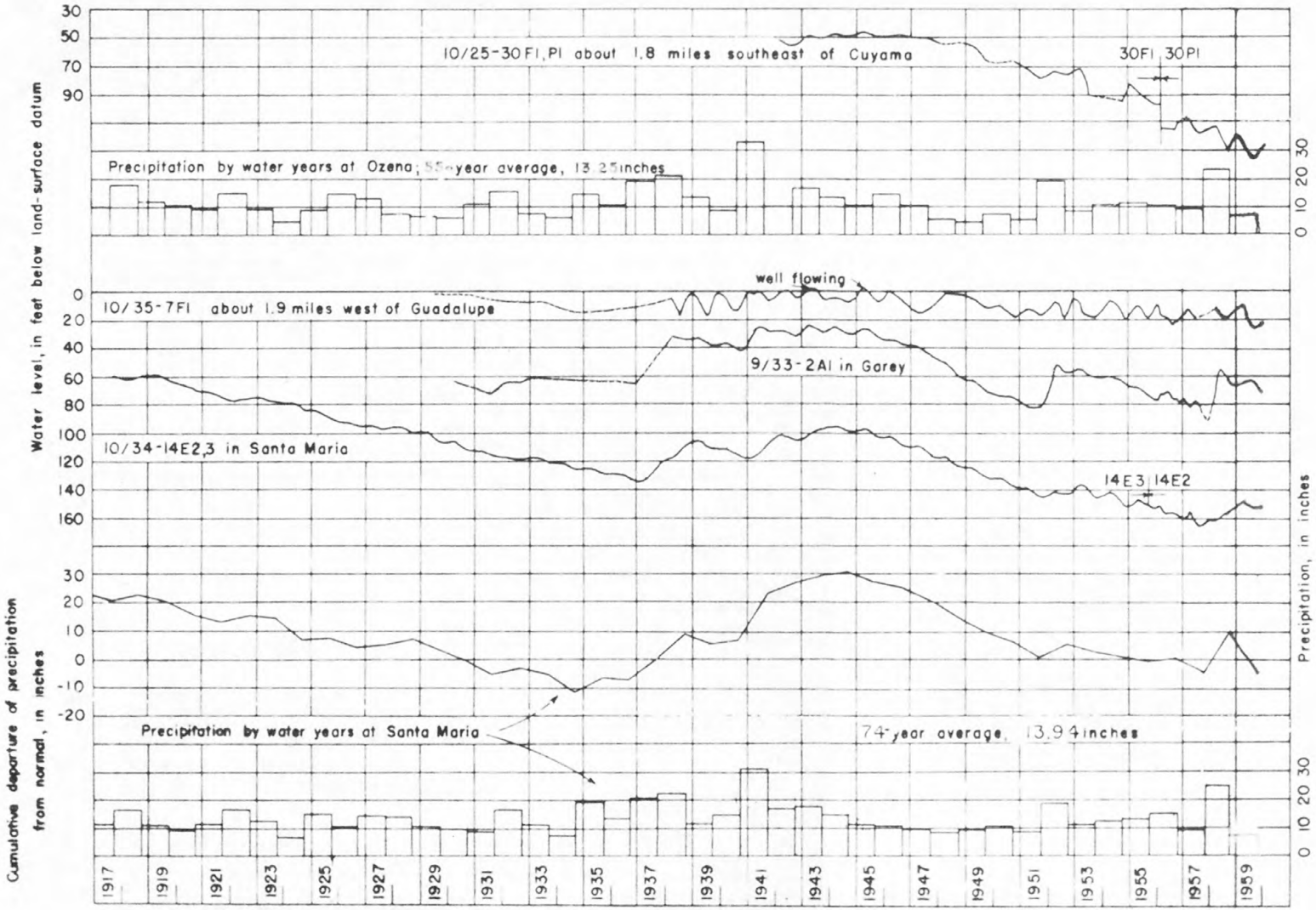
FIGURE 1



WATER-LEVEL FLUCTUATIONS IN SIX WELLS IN SANTA BARBARA COUNTY, CALIFORNIA, AND PRECIPITATION BY WATER YEARS AT SANTA BARBARA

U. S. GEOLOGICAL SURVEY

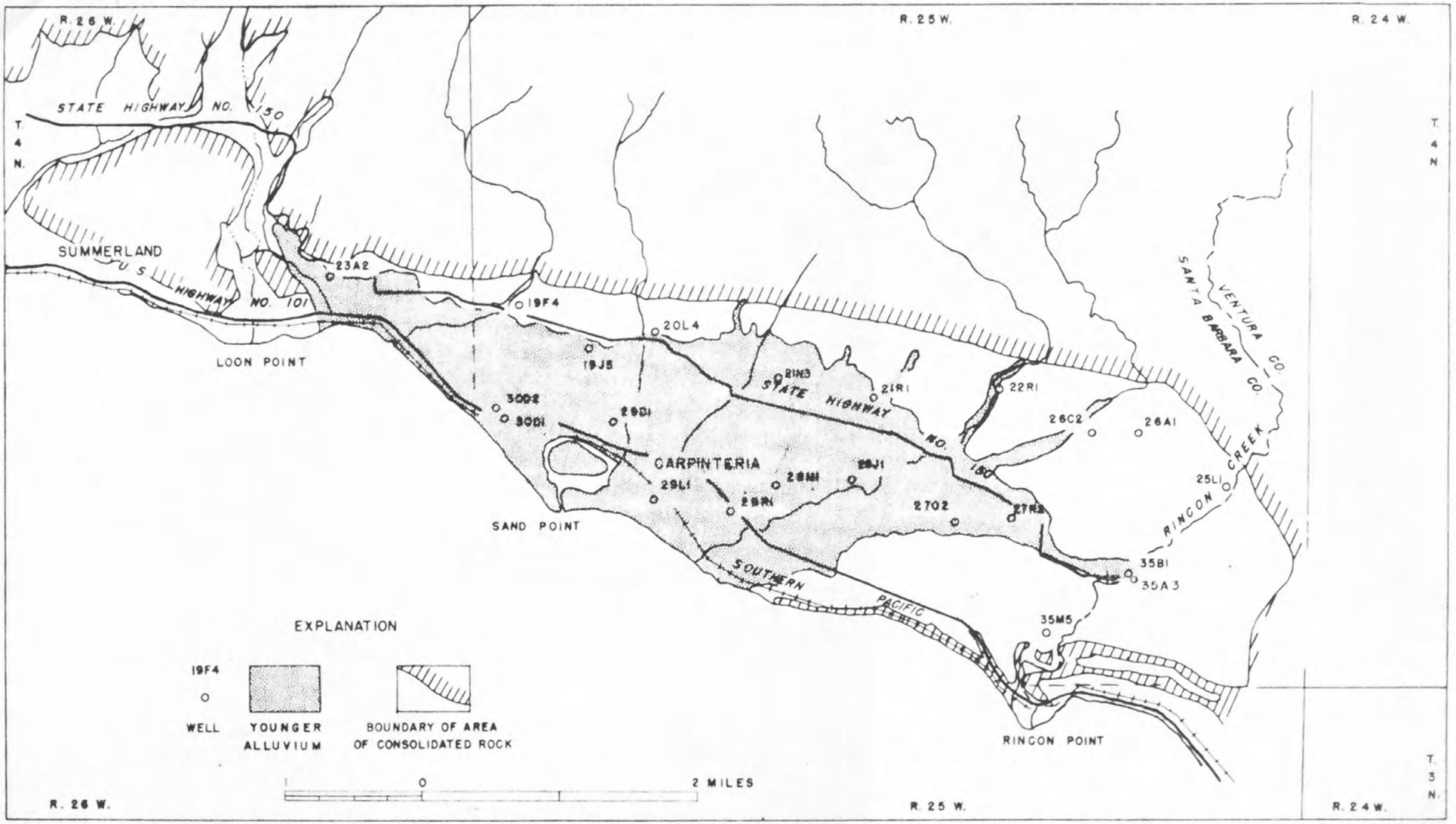
FIGURE 2



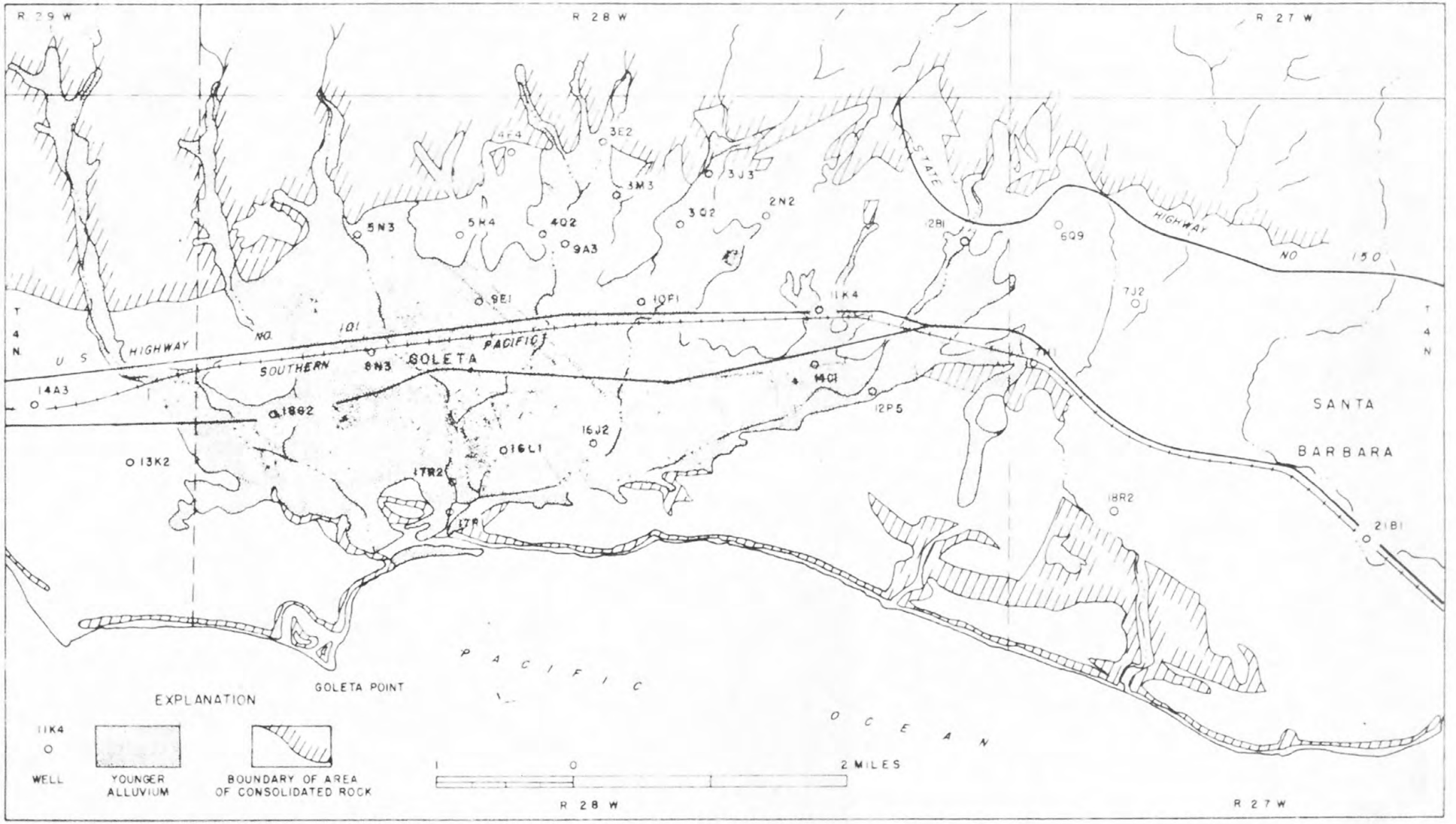
FLUCTUATIONS OF WATER LEVELS IN FOUR WELLS IN SANTA BARBARA COUNTY, CALIFORNIA, AND PRECIPITATION BY WATER YEARS AT OZENA AND SANTA MARIA AND CUMULATIVE DEPARTURE OF PRECIPITATION FROM NORMAL AT SANTA MARIA

U. S. GEOLOGICAL SURVEY

FIGURE 3



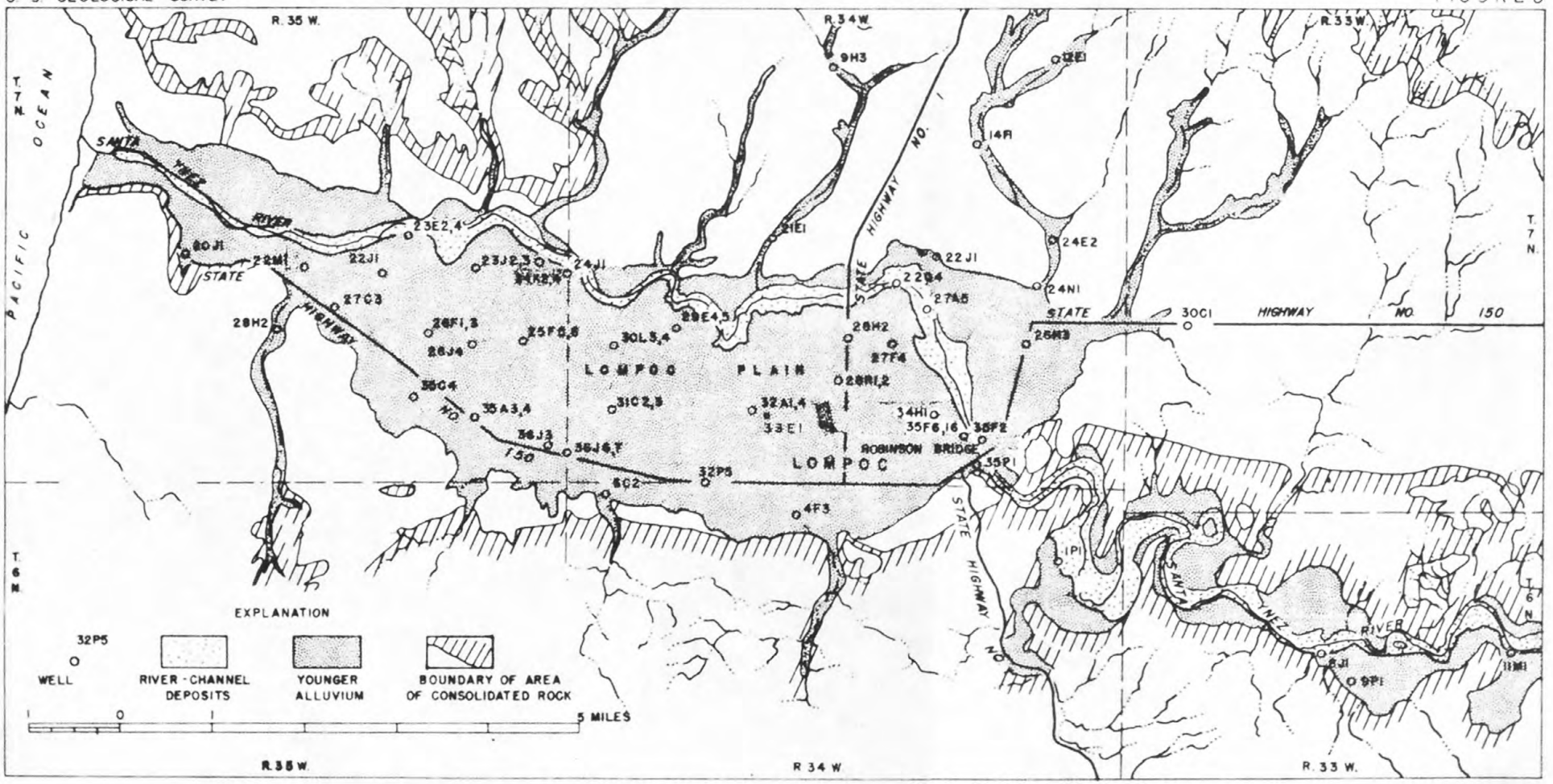
MAP OF CARPINTERIA BASIN SHOWING LOCATION OF OBSERVATION WELLS, 1959



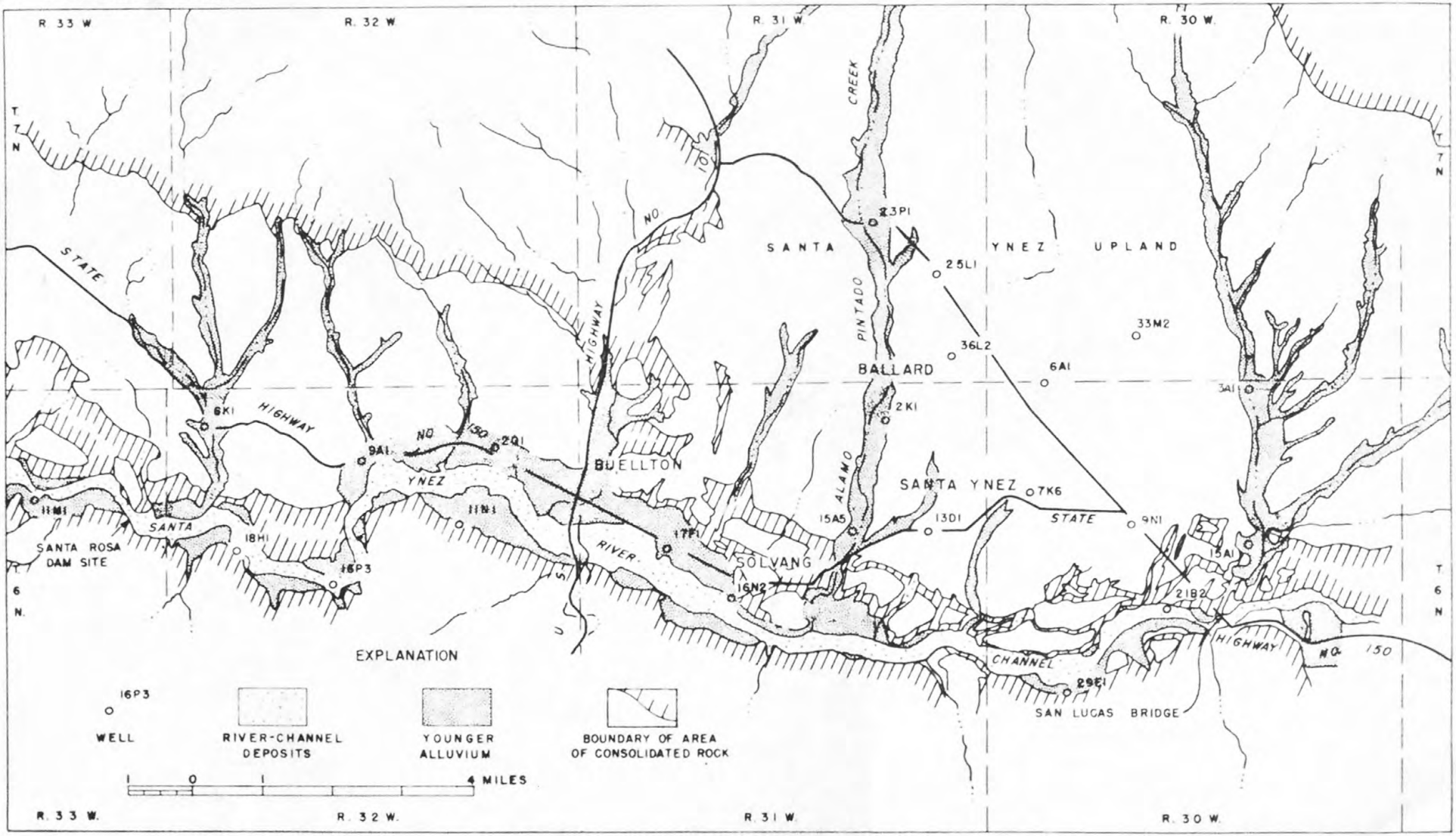
MAP OF GOLETA BASIN SHOWING LOCATION OF OBSERVATION WELLS, 1959

U. S. GEOLOGICAL SURVEY

FIGURE 5



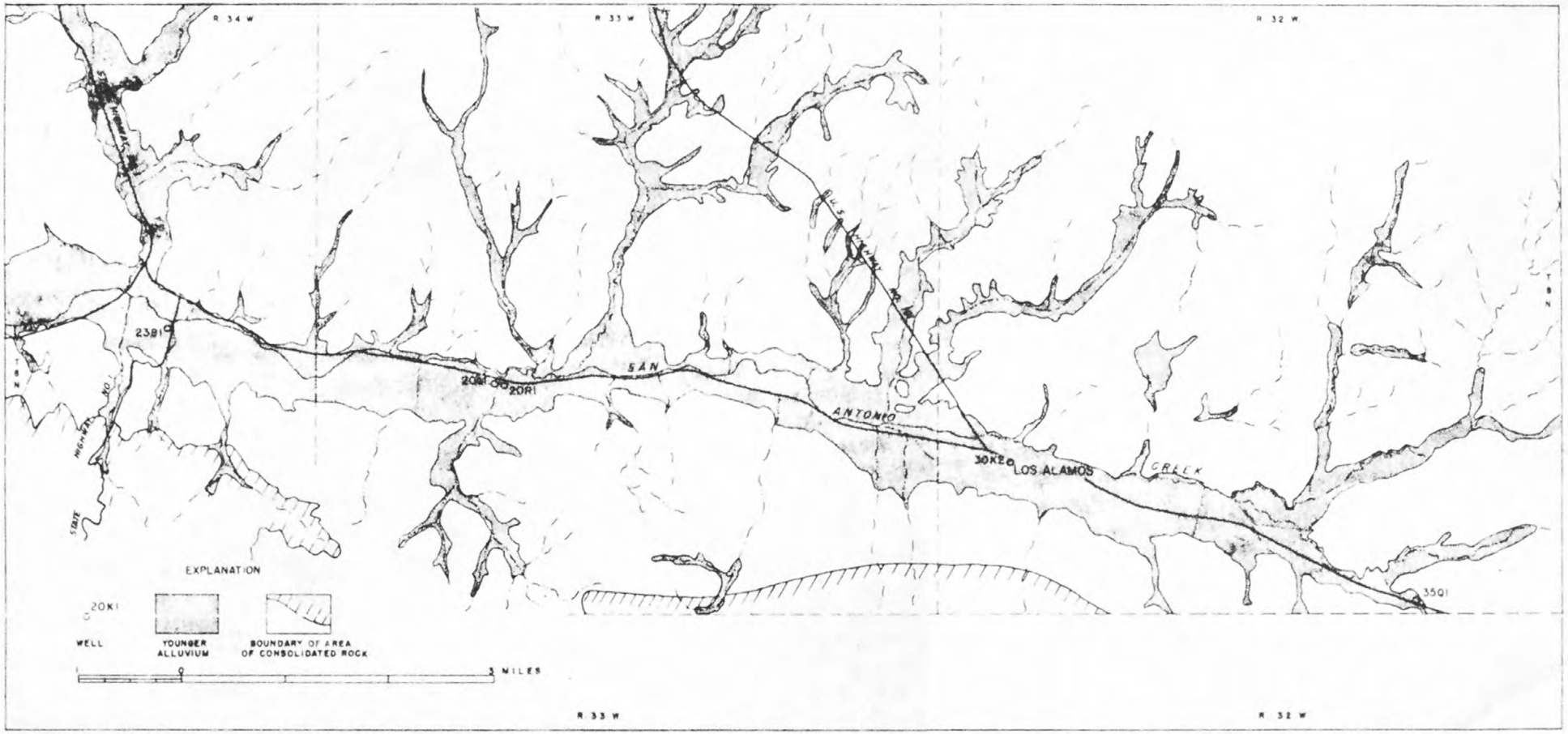
MAP OF LOMPOC PLAIN AND VICINITY SHOWING LOCATION OF OBSERVATION WELLS, 1959



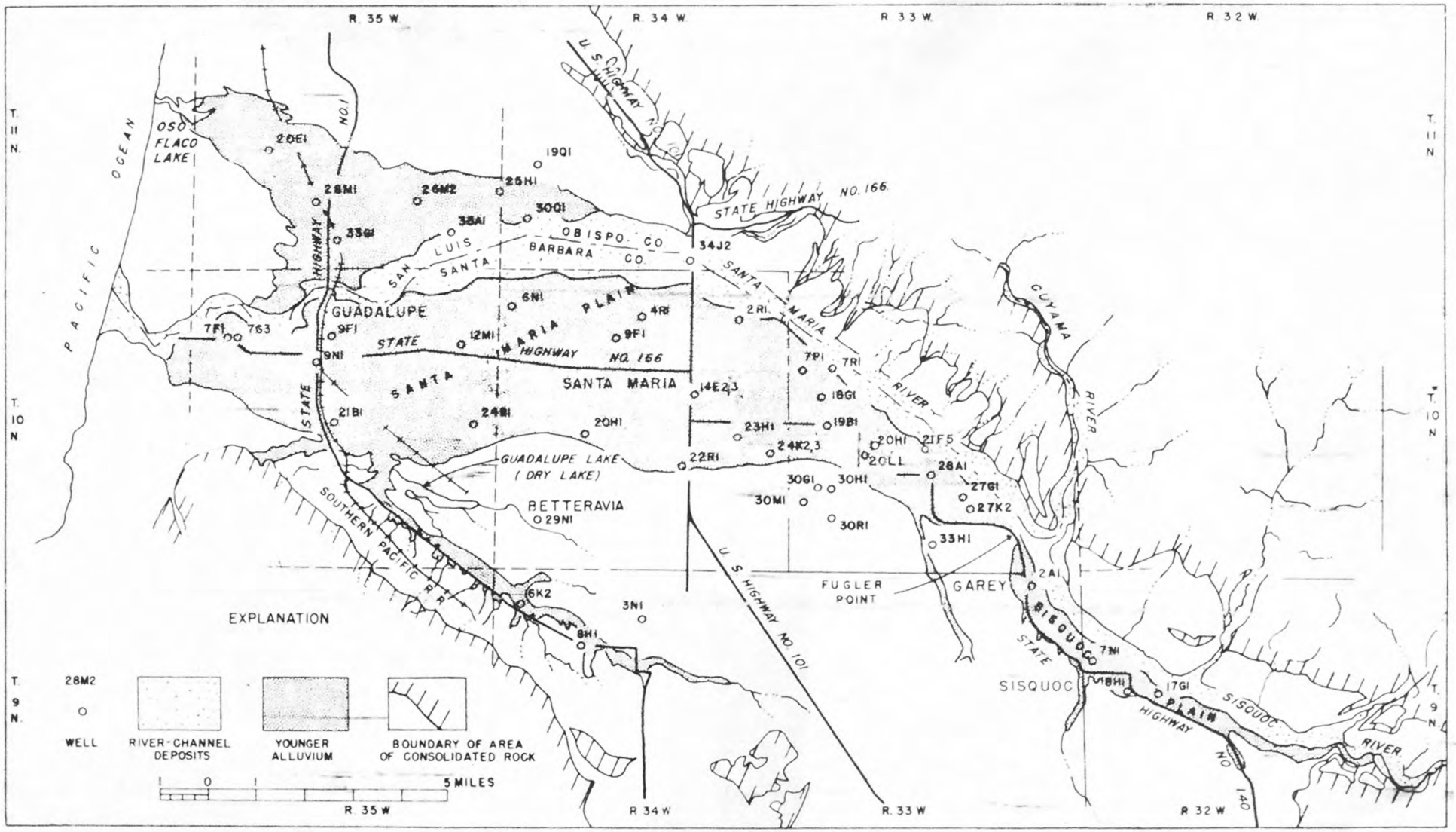
MAP OF SANTA YNEZ UPLAND AND ALLUVIAL DEPOSITS BETWEEN SAN LUCAS BRIDGE AND SANTA ROSA DAM SITE SHOWING LOCATION OF OBSERVATION WELLS, 1959

U. S. GEOLOGICAL SURVEY

FIGURE 7



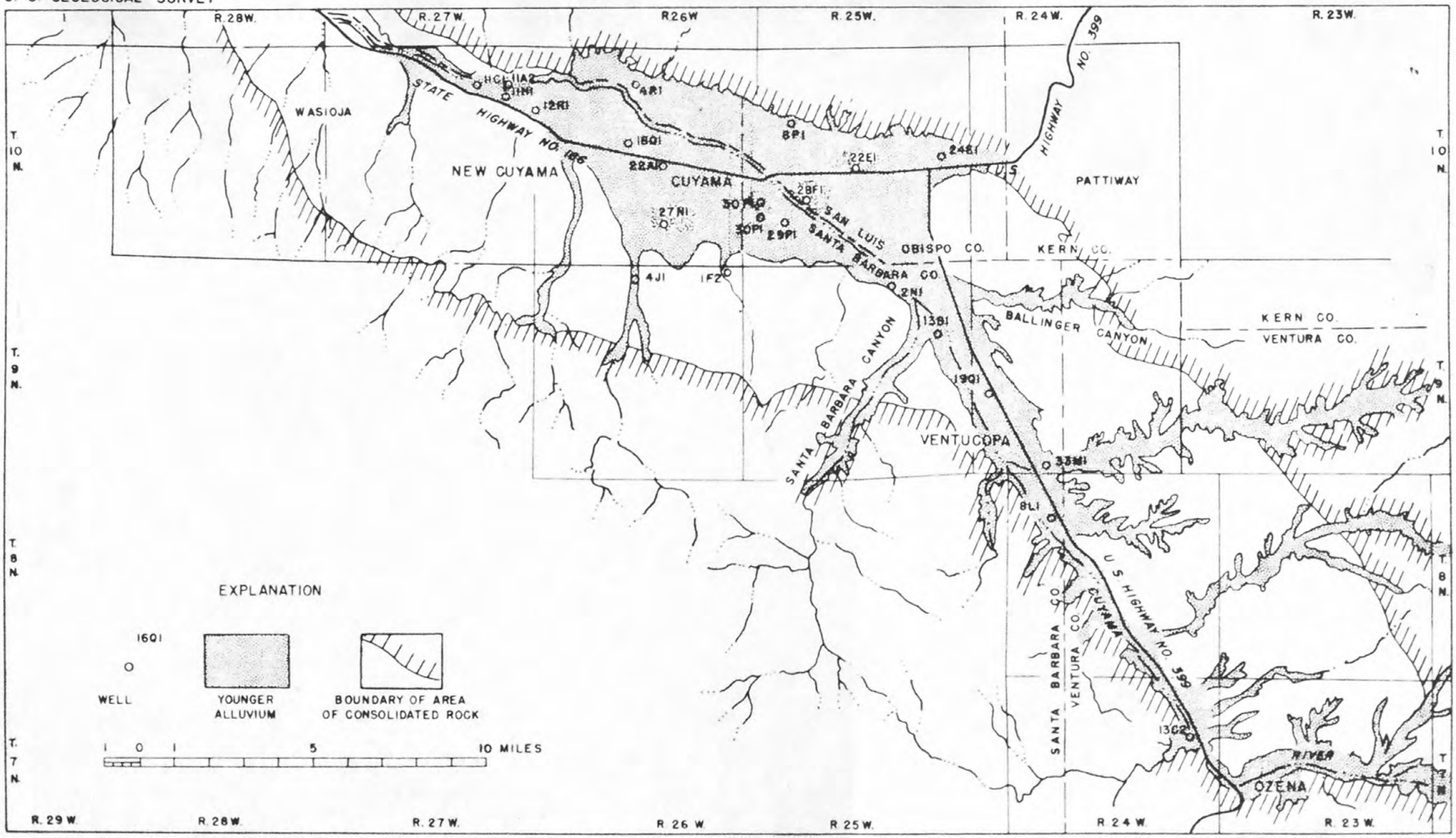
MAP OF SAN ANTONIO CREEK VALLEY SHOWING LOCATION OF OBSERVATION WELLS, 1959



MAP OF SANTA MARIA VALLEY AREA SHOWING LOCATION OF OBSERVATION WELLS, 1959

U. S. GEOLOGICAL SURVEY

FIGURE 9



MAP OF CUYAMA VALLEY AND VICINITY SHOWING LOCATION OF OBSERVATION WELLS, 1959

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	HIGH	WIDE	THICKNESS
1523	9 inches	7 inches	½ inch
1524	10 "	7 "	"
1525	9 "	6 "	"
1526	9¾ "	7⅛ "	"
1527	10½ "	7⅜ "	"
1528	11 "	8 "	"
1529	12 inches	10 inches	⅝ inch
1530	12 "	9⅛ "	"
1532	13 "	10 "	"
1533	14 "	11 "	"
1534	16 "	12 "	"

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