

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FIRST
PROGRESS REPORT ON THE COOPERATIVE INVESTIGATION
OF SPRINGS AND STREAM FLOW IN THE TECOLOTE TUNNEL AREA
OF SANTA BARBARA COUNTY, CALIFORNIA

By

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Prepared in cooperation with the
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Progress Report on the Cooperative Investigation
of Springs and Stream Flow in the Tecolote Tunnel Area
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Origin, Purpose, and Scope of Investigation

In consideration of the probability that the Tecolote Tunnel of the Santa Barbara County Project will intercept and develop appreciable flows of water, and in order to provide data from which the effect of such development on the water resources of the affected area may be determined, it was agreed among representatives of the Bureau of Reclamation, Geological Survey, and Santa Barbara County Water Agency meeting in Santa Barbara on October 7, 1948, that the Geological Survey would undertake an investigation to obtain such data. In a letter dated October 21, 1948 to Mr. Harlowe M. Stafford, Engineer-in-charge, Geological Survey, Los Angeles, Mr. E. R. Crocker, Project Manager, Bureau of Reclamation, requested "that the Geological Survey undertake and carry out during the fiscal year 1949 the following described investigations and measurements of surface waters in the general vicinity of Tecolote Tunnel, Santa Barbara Project:

Secure data in regard to location and description and make periodic measurements of developed springs and make measurements of the low flow of streams on both slopes of the Santa Ynez Mountains between Maria Ygnacio Creek and San Marcos Pass road on the east and Refugio road on the west with a view to providing data from which the effect of inflow into Tecolote Tunnel on surface-water resources may be determined. Submit data secured to Bureau of Reclamation as each series of measurements is completed."

Provision was made for reimbursement of the Geological Survey by the Bureau of Reclamation for the expense of the investigation during the 1949 fiscal year, with the expectation that in subsequent years it would be carried out under a cooperative agreement between the Geological Survey and the Santa Barbara County Water Agency.

This progress report has been prepared for the purpose of bringing together the factual data which the investigation has so far yielded.

Field Work

Previous Investigations

Under the cooperation between the Geological Survey and the Santa Barbara County Water Agency, and at the request of the latter agency, Mr. J. E. Upson of the Ground Water Branch, during the period June to August 1948 located, described, and measured the discharge of about 48 springs in the Santa Ynez Mountains between the site of the Tecolote Tunnel and the San Marcos Pass road. In many instances, water samples were taken and partial chemical analyses of the spring waters were made.

Under the cooperation first between the Geological Survey and the County of Santa Barbara and later between the Geological Survey and the State of California, and at the request of the Bureau of Reclamation, the Surface Water Branch began in February 1946 and has continued to date, periodic measurements of the low flow above points of diversion in Tecolote, Eagle, and Dos Pueblos Canyons.

The data of both of these earlier investigations are included in this report.

Present Investigation

In general, the location, description, and initial measurement of the springs, and geologic investigations relating thereto have been carried out by the Ground Water Branch, and the location and description of the stream-measuring sites, the measurements at these sites, and the continued measurements of the springs have been carried out by the Surface Water Branch.

During October and November 1948 the Ground Water Branch extended the location and examination of springs to cover the entire project area. In October 1948 engineers of the Surface Water Branch made a reconnaissance of all of the principal canyons in the project area and established a network of stream-measuring sites. Insofar as practicable, sites above all known diversions were selected. During February 1949 engineers Warren of the Ground Water Branch and Burgess of the Surface Water Branch visited jointly all spring observation sites, and consolidated the program for the continued measurement by the Surface Water Branch of both springs and streams at some 140 sites.

Location and Distribution of Measuring Sites

The location of the springs and stream-discharge measuring sites for which the data are given in tables 1, 2, and 3, is shown on the map, figure 1. The number shown for each site corresponds to the number by which the site is designated in the tables.

The altitude and distribution of the measuring sites in reference to the projected line of the Tecolote Tunnel are shown diagrammatically in figure 2 which represents an east-west cross-section of the east-west Santa Ynez Mountain range between longitudes $119^{\circ}45'$ and $120^{\circ}05'$. The position of each site is plotted on the basis of its longitude and altitude

as derived from the most recent topographic maps, and the positions of the north and south portals of the Tecolote Tunnel are similarly shown. Distinctive symbols have been used to indicate whether the measuring site is north or south of the divide which, as shown on figure 2, represents the highest point at each longitude. Distances of the sites in miles east or west of that point in the tunnel directly under the divide are indicated by the scale at the bottom of the diagram. As derived from this diagram, the east-west distribution of the measuring sites in reference to the tunnel is as follows:

Miles from mid-tunnel	Number of measuring sites		
	East	West	Total
0 - 2	13	11	24
2 - 4	15	23	38
4 - 6	21	12	33
6 - 8	12	10	22
8 - 10	0	25	25

As a rough guide in indicating the relative importance of the measuring sites with respect to the possible influence of the tunnel on the flow in adjacent springs and streams, the piezometric gradients for slopes of plus 10 percent to minus 2 percent radiating from the midpoint of the tunnel have been drawn on figure 2. If the Santa Ynez Mountains were a completely homogeneous mass, it could be expected that the flow of those springs or streams having the steepest gradient in reference to the tunnel would be subject to the greatest influence from the tunnel while the flow of those having the flattest of such gradients would be subject to the least influence. Actually, the mass of the Santa Ynez Mountains in this area is extremely complex, and very little is known regarding the inter-relation of its various ground-water bodies.

Records

Table 1

The data resulting from the investigation of springs by the Ground Water Branch during the period from June 1948 through February 1949 are presented in table 1. Where water samples for chemical analysis were taken and water temperature observed, the results are included in the table.

An analysis of the February 1949 measurements of the springs shows the following distribution of discharge in relation to altitude:

Altitude in feet	Discharge in gallons per minute			
	Average	25% showed less than	Median	25% showed more than
2000-3000	2.44	0.3	2.1	4.2
1000-2000	3.08	.5	1.5	4.3
0-1000	2.78	0	.5	1.9

Because the average values of discharge may be greatly influenced by only one or two large springs, the median values are best representative of this relationship. These values indicate a range in discharge from 0.5 gallons per minute for altitudes between zero and 1,000 feet to 2.1 gallons per minute for altitudes between 2,000 and 3,000 feet.

Table 2

The results of stream-discharge measurements made by the Ground Water Branch during the period from June 1948 through February 1949 are given in table 2. Where water samples for chemical analysis were taken and water temperatures observed, the data of these analyses and observations also are shown in the table.

Table 3

In table 3 the results of all discharge measurements of springs and streams as given in tables 1 and 2 and as made by the Surface Water Branch through April 1949 are brought together in the form of a single page for each measuring site designated by a station number which corresponds to the location number shown on the map, figure 1. On the separate page for each station, a chronological listing of the discharge measurements is preceded by short paragraphs which give the location, altitude and description of the station, information respecting diversions in the case of stream stations, and reference to any previous measurements not listed.

As shown by the fact that the combined discharge as measured at 130 spring and stream stations during the month of February 1949 amounted to only 6.9 second-feet, the quantities of flow involved are, in most instances, very small. For this reason, the discharge is given in this table in gallons per minute as well as in cubic feet per second.

It is expected that as further measurements are made, the results will be tabulated on the proper pages of this table, and that future progress reports will be in the form of a supplement to the present report, giving the data of table 3.

Table 3

Discharge measurements of developed springs
and small streams in the Tecolote Tunnel Area
of the Santa Ynez Mountains, Santa Barbara
County, California, through April 1949.

SPRING - ETIENNE LEJEUNE

Location.- Lat. $34^{\circ}30'50''$, long. $119^{\circ}47'10''$, about 0.6 mile north of Painted Cave.

Altitude.- About 2,700 feet, from topographic map.

Description.- Uncurbed pool at foot of boulders at falls in creek bed.
Discharge measured at outlet of pool.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Feb. 8, 1949	: 0.0051	: 2.3
Apr. 11,	: .021	: 9.4
	:	:
	:	:
	:	:
	:	:
	:	:
	:	:

SPRING - A. C. POSTEL

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}47'40''$, about 0.7 mile northwest of Painted Cave.

Altitude.- About 2,710 feet, from topographic map.

Description.- Cemented pool in alluvium on creek bed. Spring not in use

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
	:	:
	:	:
	:	:
	:	:
	:	:

SPRING - A. C. POSTEL

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}47'40''$, about 0.7 mile northwest of Painted Cave.

Altitude.- About 2,690 feet, from topographic map.

Description.- Cemented pool in alluvium on creek bed. Not able to measure discharge.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
	:	:
	:	:
	:	:
	:	:

SPRING - B. L. OGDEN

7 SECTION

Location. - Lat. 34°30'20", Long. 119°47'10" at Painted Cave.

Altitude. - About 2,560 feet, from topographic map.

Description. - Uncontrolled seepage from fractures in sandstone ledge on valley side. Discharge measured at end of 3-inch pipe.

DATE	DISCHARGE
June 19, 1948 (estimated)	0.001
Feb. 9, 1949	0.0089
Apr. 11 (10:50 a.m.)	0.033
	15
	7.0
	0.5
	Second-foot : gals. per min.

SPRING - E. T. OGRAM

Location.- Lat. $34^{\circ}30'20''$, long. $119^{\circ}47'10''$ at Painted Cove.

Altitude.- About 2,550 feet, from topographic map.

Description.- Stone curbed seep, at foot of bluff, east side of creek.
Unable to measure.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
	:	:
	:	:
	:	:
	:	:
	:	:

SPRING - SAM NUCKOLS

Location.- Lat. $34^{\circ}30'20''$, long. $119^{\circ}47'10''$, at Painted Cave

Altitude.- About 2,360 feet, from topographic map.

Description. - Seeps in landslide on valley side. Discharge measured at end of tile pipe to concrete settling box. -

[illegible]

Description .- Two concrete curbed seeps on hillside 8 feet apart. Measurement of both springs at end of overflow pipes. Not used at present time.

[illegible]

MARIA YGNACIO CREEK AT OLD SAN MARCOS PASS ROAD

Location.- Lat. $34^{\circ}27'40''$, $119^{\circ}47'40''$. At bridge on old San Marcos Pass Road about 0.6 mile above Goleta Foothill Road.

Altitude.- 140 feet, from topographic map.

Description.- Measurements made in natural creek channel at bridge.

Diversion.- One diversion about 1.3 miles above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 27, 1948 (3:00 p.m.)	: 0.12	: 54
Nov. 15 (10:00 a.m.)	: No flow	: No flow
Dec. 13 (8:55 a.m.)	: No flow	: No flow
Jan. 3, 1949 (9:00 a.m.)	: .11	: 49
Mar. 17, (11:15 a.m.)	: .37	: 166
Apr. 11 (12:15 p.m.)	: .16	: 72

SPRING - FOSTER GLEN PARK, COUNTY OF SANTA BARBARA

Location.- Lat. $34^{\circ}30'20''$, long. $119^{\circ}48'20''$, about 0.2 mile north of Highway 150.

Altitude.- About 1,720 feet, from topographic map.

Description.- Bricked pool on sandstone ledge in creek bottom. Discharge measurements at inflow to storage tank. Some flow over earth collecting dam, but measured and included in the discharge.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 19, 1948	: 0.0016	: 0.7
Feb. 10, 1949	: .0029	: 1.3
Apr. 13 (12-noon)	: .0041	: 1.8
	:	:
	:	:
	:	:
	:	:

SPRING - KINEVAN FILING - FOREST SERVICE

Location.- Lat. $34^{\circ}30'20''$, long. $119^{\circ}49'50''$, about 0.5 mile southwest of Highway 150.

Altitude.- About 2,300 feet, from topographic Map.

Description.- Stone-curbed pool in alluvium on hillside. Discharge measured at inflow to storage tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 15, 1948	: 0.0022	: 1.0
Feb. 16, 1949	: .0025	: 1.1
Apr. 13 (10:40 a.m.)	.0032	1.4

SPRING - TOM KINEVAN

Location.- Lat. $34^{\circ}30'30''$, long. $119^{\circ}49'40''$, about 0.3 mile southwest of Highway 150.

Altitude.- About 2,230 feet, from topographic map.

Description.- Dug pit in alluvial wash below sandstone ledge. Discharge measured in pipe line to storage tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 15, 1948	: 0.0074	: 3.3
Feb. 16, 1949	: .0076	: 3.4
Apr. 13 (10:20 a.m.)	: .0092	: 4.1
	:	:
	:	:
	:	:
	:	:

SPRING - FRED J. VANDERLE AND JOHN FIELDERICKS

Location. - Lat. $34^{\circ}30'40''$, long. $117^{\circ}49'10''$, about 0.1 mile north of Highway 150 at San Marcos Pass.

Altitude. - About 2,130 feet, from topographic map.

Description. - Stone-curbed pool in alluvium on hillside. On June 11, 1948, slight seep through overflow pipe.

DATE	DISCHARGE	
	: Second-foot	: Gals. per min.
:	:	:
:	:	:
:	:	:
:	:	:
:	:	:

SHELING - G. H. MULLS, JR., et al

Location.- Lat. $34^{\circ}30'20''$, long. $119^{\circ}48'40''$, at Highway 150 near San Marcos Pass.

Altitude.- About 1,900 feet, from topographic map.

Description.- Seeps in alluvium along creek bed; one enclosed in concrete box. Discharge measured at takeoff from pipe line below concrete box.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 30, 1948	: 0.011	: 4.8
Feb. 16, 1949	: .011	: 5.0
Apr. 13 (11:30 a.m.)	: .013	: 5.6
	:	:
	:	:
	:	:

SAN JOSE CREEK AT HOLME'S PLACE, SAN MARCOS PASS

Location.- Lat. $34^{\circ}30'10''$. Long. $119^{\circ}48'40''$, at Holme's Place (Old "paulding place) about 300 feet south of Highway 150 and about 1.0 mile northwest of the San Marcos Trout Club.

Altitude.- 1,890 feet, from topographic map.

Description.- Measurements made at next to the lowest dam below Spring #18.

Diversion.- Several diversions above and particularly Spring #18 which occurs in creek channel.

DATE	DISCHARGE	
	: Second-feet :	Gals. per min.
July 30, 1948 (estimated)	: 0.016-.018 :	7-8
Feb. 16, 1949	: .017 :	7.5
Apr. 13 (11:25 a.m.)	: .027 :	12
	: :	
	: :	
	: :	
	: :	

SPRING - SAN MARCOS TROUT CLUB

Location.- Lat. $34^{\circ}29'40''$, long. $119^{\circ}48'30''$, about 0.5 mile west of Highway 150.

Altitude.- About 1,700 feet, from topographic map

Description.- wood-curbed seep in alluvium of creek bottom. Discharge measured at inflow from $3/4$ -inch pipe line to silling box above orifices 1, 2 and 3 of Spring #21.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 30, 1948	: 0.0033	: 1.5
Feb. 10, 1949	: .0033	: 1.5
* Apr. 11, (11:45 a.m.)	: .016	: 7.3

* Combined discharge of springs #20 & 21.

SPRING - SAN MARCOS TROUT CLUB

Location.- Lat. $34^{\circ}29'40''$, long $\downarrow$ $119^{\circ}48'20''$, about 0.3 mile west of Highway 150.

Altitude.- About 1,450 feet, from topographic map.

Description.- Four wood-curbed seeps in alluvial wash on hillside. Discharge measured at inflow to storage tank less discharge of Spring #20.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 30, 1948	: 0.0071	: 3.2
Feb. 10, 1949	: .0094	: 4.2

SPRING - RISHI SINGH GREYWALL

Location.- Lat. $34^{\circ}29'40''$, long. $119^{\circ}49'00''$

Altitude.- About 1,700 feet, from topographic map.

Description.- Concreted pool on sandstone in creek bed; water from fractures.
Discharge measured at overflow from storage tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 17, 1948	: 0.0065	: 2.9
Feb. 10, 1949	: .0076	: 3.4
Apr. 13 (9:45 a.m.)	: Pumping	: Pumping

SAN JOSE CREEK 1.0 MILE ABOVE PATTERSON AVE. BRIDGE

Location.- Lat. $34^{\circ}28'30''$, long. $119^{\circ}48'20''$, directly below fork in creek and about 1 mile north of Patterson Ave.

Altitude.- About 250 feet, from topographic map.

Description.- Measuring site is just below forks in natural creek bed; and is reached by private dirt road along left bank of creek.

Diversions.- Several minor diversions above in Trout Club area.

Previous measurements.- 1943-1945

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 27, 1948 (4:00 p.m.)	: 0.07	: 31
Nov. 15 (10:25 a.m.)	: .12	: 54
Nov. 29 (8:55 a.m.)	: .062	: 28
Dec. 13 (9:10 a.m.)	: .16	: 74
Jan. 3, 1949 (9:20 a.m.)	: .32	: 144
Mar. 17 (10:40 a.m.)	: 1.03	: 462
Apr. 25 (11:05 a.m.)	: .25	: 110

SPRING - GOLDEN WEST ESTATES

Location.- Lat. $34^{\circ}29'00''$, long. $119^{\circ}49'20''$

Altitude.- About 550 feet, from topographic map.

Description.- Open pools in alluvium of creek bed.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 18, 1948 (estimated)	: 0.002	: less than 1
Feb. 17, 1949	: No flow	: No flow
	:	:
	:	:
	:	:
	:	:

SPRING - A. ARMANDO

Location. - Lat. $34^{\circ}28'10''$, Long. $119^{\circ}49'40''$

Altitude. - About 470 feet, from topographic map.

Description. - Gave in sandstone beds.

DATE	DISCHARGE
Oct. 18, 1948	: No flow
Feb. 23, 1949	: Almost dry
Mar. 31	: No flow
(11:55 a.m.)	: :
	: :
	: :
	: :
	: :
	: Second-foot : Gals. per min.

SPRING - A. ARMANDO

Location.- Lat. $34^{\circ}28'10''$, long. $119^{\circ}49'40''$

Altitude.- About 400 feet, from topographic map.

Description.- Tunnel in hillside in nearly vertical sandstone beds. Discharge measured at mouth of tunnel.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 18, 1948	: less than	:
	: 0.002	: less than 1
Feb. 23, 1949	: .00022	: 0.1
Mar. 31 (12:15 p.m.)	: No flow	: No flow
	:	:
	:	:
	:	:
	:	:

SPRING - SAWYER ESTATE

Location.- Lat. $34^{\circ}29'10''$, long. $119^{\circ}49'50''$

Altitude.- About 1,000 feet, from topographic map.

Description.- Open pit in alluvial wash on hillside.

DATE	:	DISCHARGE	
		Second-feet	Gals. per min.
Oct. 19, 1948	:	No flow	:
Feb. 23, 1949	:	No flow	:
Mar. 31 (10:30 a.m.)	:	No flow	:
	:		:
	:		:
	:		:

SAN PEDRO CANYON CREEK AT FORKS

Location.- Lat. $34^{\circ}28'40''$, long. $119^{\circ}49'50''$, at Fork in creek about 0.3 mile upstream from Stow Company diversion and about 3.2 miles north of Highway 101.

Altitude.- About 600 feet, from topographic map.

Description.- Measuring site is at fork in creek where rock barrier presumably brings subsurface flow to surface and is reached by path from house at top of hill when Spring #28 is visited.

Diversion.- No known diversion above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 19, 1948	: 0.06	: 27
Feb. 23, 1949	: .10	: 47
Mar. 31 (10:55 a.m.)	: .072	: 32
	:	:
	:	:

SAN PEDRO CANYON CREEK ABOVE DIVERSION

Location.- Lat. $34^{\circ}28'40''$, long. $119^{\circ}50'10''$, in creek bed slightly upstream from side Canyon to Spring #31, and at end of La Patera lane about 3.2 miles north of Highway 101.

Altitude.- About 400 feet, from topographic map.

Description.- Diversion works is concrete dike across creek channel with 6-inch outlet line.

Diversion.- No known diversions above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 23, 1948 (estimated)	: 0.07	: 30
Nov. 1 (2:10 p.m.)	: .065	: 29
Nov. 15 (11:10 a.m.)	: .091	: 41
Nov. 29 (10:50 a.m.)	: .10	: 45
Dec. 13 (10:25 a.m.)	: .11	: 50
Dec. 13 (11:45 a.m.)	: .11	: 50
Feb. 23, 1949 (9:29 a.m.)	: .10	: 45
Mar. 17 (9:10 a.m.)	: .18	: 81
Apr. 25 (1:20 p.m.)	: .11	: 51
	:	:
	:	:
	:	:

SPRING - MRS. K. C. CANATLEY & MRS. B. O'BANNON

Location.- Lat. $34^{\circ}28'40''$, Long. $119^{\circ}50'10''$

Altitude.- About 425 feet, from topographic map.

Description.- Several seeps in landslide on valley walls. Discharge measured at 2-inch valve in pipe line.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 23, 1948 (estimated)	: 0.06 - .08	: 25 - 35
Oct. 19 (estimated)	: .04	: 18 - 20
Nov. 1 (2:50 p.m.)	: .064	: 29.
Feb. 23, 1949 (9:00 a.m.)	: 1.075	: 34
Apr. 25 (1:05 p.m.)	: .066	: 30

SPRING - MRS. K. C. CANATSEY & MRS. B. O'BARRON

Location.- Lat. $34^{\circ}28'30''$, long. $119^{\circ}50'40''$

Altitude.- About 350 feet, from topographic map.

Description.- Open pools in alluvium; one curbed with stone, on valley bottom.
Discharge measured at end of pipeline to storage tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 23, 1948 (estimated)	: 0.002	: 1
Feb. 23, 1949	: -	: -

BARTLETT CANYON CREEK ABOVE DIVERSION

Location.- Lat. $34^{\circ}28'40''$, long. $119^{\circ}51'20''$, at end of Cameros Valley road 0.7 mile above junction with Dry Creek and about 3.7 miles north of Highway 101.

Altitude.- About 500 feet, from topographic map.

Description.- Measuring site is above diversion at solid rock barrier in creek channel which presumably brings most of the sub-surface flow to surface.

Diversion.- There are no known diversions above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 23, 1948 (estimated)	: 0.05	: 24
Oct. 29 (3:44 p.m.)	: .032	: 14
Nov. 15 (12:55 p.m.)	: .039	: 18
Nov. 29 (12:25 p.m.)	: .038	: 17
Dec. 13 (12:45 p.m.)	: .045	: 20
Feb. 18, 1949 (1:00 p.m.)	: .047	: 21
Mar. 17 (8:25 a.m.)	: .092	: 41
Apr. 26 (1:10 p.m.)	: .054	: 24
	:	:
	:	:
	:	:
	:	:
	:	:

SPRING - T. B. BISHOP COMPANY

Location.- Lat. $34^{\circ}28'30''$, long. $119^{\circ}51'20''$

Altitude.- About 380 feet, from topographic map.

Description.- Seeps from rock fractures and alluvium along creek bottom above concrete dam.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
	:	:
	:	:
	:	:
	:	:
	:	:

SPRING - T. B. BISHOP COMPANY

Location. - Lat. $34^{\circ}29'00''$, long. $119^{\circ}52'10''$

Altitude. - About 800 feet, from topographic map.

Description. - Seeps in alluvium on creek bottom. Discharge measured above diversion dam.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 29, 1948	: 0.053	: 24
Feb. 18, 1949	: .067	: 30
Mar. 31 (9:05 a.m.)	: .17	: 75
Apr. 26 (2:25 p.m.)	: .11	: 48

SPRING - OLAF HOVE

Location.- Lat. $34^{\circ}28'50''$, long. $119^{\circ}52'50''$

Altitude.- About 600 feet, from topographic map.

Description.- Seeps in alluvium along creek bed - flow concentrated by dam across creek. Discharge measured at inflow to reservoir from settling box.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 22, 1948	: 0.0038	: 1.7
Oct. 15	: .0038	: 1.7
Feb. 17, 1949 (4:00 p.m.)	: .0069	: 3.1
Mar. 31 (8:00 a.m.)	: .011	: 4.8
Apr. 25 (2:30 p.m.)	: .015	: 6.9

GLEN ANNE CREEK AT DAMSITE

Location.- Lat. $34^{\circ}28'20''$, long. $119^{\circ}52'40''$, at narrows in Glen Anne Canyon and at damsite of proposed reservoir at end of Tecolote Tunnel. About 2.9 miles north of Highway 101.

Altitude.- About 350 feet, from topographic map.

Description.-Measurement site at mouth of canyon in narrows of box canyon reached by Glen Anne Canyon road.

Diversions.- Olaf Hove diverts from Spring #36 in Creek bed about 0.5 mile above station.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Nov. 2, 1948 (10:30 a.m.)	: No flow	: No flow
Dec. 13 (1:50 p.m.)	: No flow	:
Feb. 17, 1949 (3:45 p.m.)	: No flow	:
Mar. 16 (1:45 p.m.)	: No flow	:

SPRING - ELMWOOD DAIRIES

Location. - Lat. $34^{\circ}28'40''$, long. $119^{\circ}53'20''$

Altitude. - About 520 feet, from topographic map.

Description. - Pools on sandstone ledges across creek bed.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 17, 1948	: No flow	:
Mar. 30, 1949	: No flow	:

SPRING - ELLWOOD BARRIES

Location.- Lat. $34^{\circ}28'40''$, long. $119^{\circ}53'40''$

Altitude.- About 470 feet, from topographic map.

Description.- Pool between sandstone ledges across stream bed. Discharge measured just above diversion dam.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 16, 1948	: No flow	: No flow
Feb. 17, 1949 (1:50 p.m.)	: 0.092	: 41
	:	:
	:	:
	:	:

DIVERSION - SILE COD DAIRIES

Location. - Lat. $34^{\circ}28'10''$, long. $119^{\circ}53'30''$

Altitude. - About 320 feet, from topographic map.

Description. - Wood-curbed seep in alluvium of creek bottom. Discharge measured at inflow to settling box.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 16, 1948	: 0.0027	: 1.2
Feb. 17, 1949	: .0076	: 3.4
Mar. 16 (12:55 p.m.)	: .0047	: 2.1
Mar. 30 (3:45 p.m.)	: .036	: 16
Apr. 26 (10:55 a.m.)	: .13	: 60

ELLIWOOD CANYON CREEK ABOVE DIVERSIONS

Location.- Lat. $34^{\circ}28'10''$, long. $119^{\circ}53'30''$, Narrows near end of Armus Canyon Road, about 2.8 miles north of Highway 101.

Altitude.- About 304 feet, from Bureau of Reclamation Bench Mark.

Description.- Measuring site in narrows at mouth of Canyon which is above all diversions. Measurements of extremely low flow made volumetric at diversion box 300 feet below.

Remarks.- There is abandoned 2-inch line to Spring #39 in creek bed about 0.5 mile above station.

(Note - 6-inch line to Dairies not operating Mar. 16, 1949; but it will be used later)

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948 (5:30 p.m.)	: No flow	: No flow
Nov. 15 (2:25 p.m.)	: No flow	: No flow
Nov. 29 (1:25 p.m.)	: No flow	: No flow
Feb. 17, 1949 (1:00 p.m.)	: 0.075	: 34
Mar. 16 (1:05 p.m.)	: .98	: 440
Mar. 30 (2:00 p.m.)	: .33	: 148

ELWOOD CANYON CREEK AT DOTY DIVERSION

Location.- Lat. $34^{\circ}27'40''$, long. $119^{\circ}53'30''$, at Doty diversion dam in Elwood Canyon, about 2.1 miles north of Highway 101.

Altitude.- About 225 feet, from topographic map.

Description.- Measuring site in Creek channel at old abandoned concrete diversion dam.

Diversions.- Several diversions above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 17, 1948	: No flow	: No flow
Feb. 17, 1949	: No flow	: No flow
Mar. 30 (1:15 p.m.)	: No flow	: No flow
Apr. 26 (10:15 a.m.)	: No flow	: No flow
	:	:
	:	:

STATION 42

SPRING - ELLWOOD DAIRIES

Location.- Lat. $34^{\circ}27'10''$, long. $119^{\circ}53'30''$

Altitude.- About 225 feet, from topographic map.

Description.- Timbered drift in sandstone bed on hillside. Discharge measured at outlet faucet by watering trough.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 17, 1948	: 0.0018	: 0.8
Mar. 30, 1949	: No flow	: No flow
Apr. 26 (9:15 a.m.)	: .0012	: .53
	:	:
	:	:

SPRING - ELLWOOD DAIRIES

Location.- Lat. $34^{\circ}27'00''$, Long. $119^{\circ}53'40''$

Altitude.- About 160 feet, from topographic map.

Description.- Former seep in alluvium of valley floor.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 18, 1948	: No flow	:
Feb. 17, 1949	: No flow	:
	:	:
	:	:

SPRING - ELLWOOD DAIRIES

Location.- Lat. $34^{\circ}26'40''$, long. $119^{\circ}53'40''$

Altitude.- About 150 feet, from topographic map.

Description.- Open excavated pool in landslide on valley side.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Aug. 18, 1948		: No flow	: No flow
Feb. 17, 1949		: Practially	: Practially
		: No flow	: No flow
Mar. 30	(12:30 p.m.)	: No flow	: No flow
Apr. 26	(9:00 a.m.)	: No flow	: No flow

WINCHESTER CANYON CREEK

Location.- Lat. $34^{\circ}28'50''$, $119^{\circ}54'20''$, at end of Winchester Canyon Road and about 3.4 miles north of Highway 101.

Altitude.- About 550 feet, from topographic map.

Description.- Measuring site at abandoned spring in creek bed.

Diversions.- No known diversions above station

Remarks.- On Nov. 15, 1948, Mr. Hollister, property owner below, stated he may redevelop spring here which has been abandoned and was dry on this date.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Nov. 2, 1948	(9:30 a.m.)	: No flow	: No flow
Nov. 15	(2:50 p.m.)	: No flow	: No flow
Nov. 29	(1:55 p.m.)	: No flow	: No flow
Mar. 16, 1949	(12:35 p.m.)	: No flow	: No flow
Apr. 26	(8:25 a.m.)	: No flow	: No flow

TECOLOTE CANYON CREEK ABOVE DIVERSION NEAR ELLWOOD

Location.- Lat. $34^{\circ}29'20''$, long. $119^{\circ}54'30''$, about 0.4 mile north of end of road through Tecolote Ranch, and about 4.0 miles north of Highway 101.

Altitude.- About 720 feet, from topographic map.

Description.- During extreme low flow the measuring site is about 1,500 feet above Tecolote Ranch diversion at outcrop, at all other times the flow is measured at another rock outcrop about 100 feet above diversion.

Diversion.- No known diversions above this station.

DATE		DISCHARGE	
		: Second-feet :	: Gals. per min. :
Feb. 15, 1946	(1:10 p.m.)	: 0.42	: 190
Apr. 18	(10:05 a.m.)	: .97	: 440
Apr. 7, 1947	(2:30 p.m.)	: 1.42	: 640
May 15	(9:00 a.m.)	: .06	: 27
June 18		: .02	: 9.0
July 17	(10:40 a.m.)	: a .005	: 2.2
Dec. 5	(10:45 a.m.)	: .045	: 20
Jan. 9, 1948	(10:00 a.m.)	: .13	: 60
Feb. 18	(10:00 a.m.)	: .13	: 60
Mar. 18	(11:00 a.m.)	: .21	: 92
Apr. 15	(9:45 a.m.)	: .27	: 120
May 14	(9:00 a.m.)	: .061	: 27
June 11	(10:30 a.m.)	: .061	: 27
July 21	(8:15 a.m.)	: .011	: 4.9
Aug. 19	(10:20 a.m.)	: No flow	: No flow
Sept. 15	(9:05 a.m.)	: No flow	: No flow
Oct. 15		: No flow	: No flow
Oct. 19	(10:00 a.m.)	: No flow	: No flow
Nov. 15	(3:45 p.m.)	: No flow	: No flow
Dec. 13	(2:45 p.m.)	: No flow	: No flow
Jan. 17, 1949	(10:05 a.m.)	: .18	: 81
Mar. 16	(11:45 a.m.)	: 1.14	: 510
Apr. 25	(10:10 a.m.)	: .10	: 45
		:	:
		:	:
		:	:
		:	:
		:	:
		:	:
		:	:
		:	:

a Estimated.

SPRING - L. G. DREYFUS ESTATE

Location.- Lat. $34^{\circ}28'30''$, long. $119^{\circ}55'40''$

Altitude.- About 350 feet, from topographic map.

Description.- Two concrete-curbed seeps at foot of hill. Discharge measured at settling box.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Jan. 17, 1949 (10:15 a.m.)	0.00027	0.12
Mar. 30 (3:00 p.m.)	.00015	.067
	:	:
	:	:
	:	:

MIDDLE FORK, EAGLE CANYON CREEK

Location.- Lat. $34^{\circ}29'00''$, long. $119^{\circ}55'40''$, in Eagle Canyon at upper-most diversion about 3.0 miles north of Highway 101.

Altitude.- About 500 feet, from topographic map.

Description.- Measuring site at diversion box 2,600 feet above Eagle Canyon Road. The 2-inch line from this diversion box broken and the diversion abandoned.

Diversion.- No known diversions above this station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 18, 1948	: No flow	: No flow
Jan. 17, 1949 (12:45 p.m.)	: 0.0078	: 3.5
Mar. 30 (9:15 a.m.)	: .014	: 6.3
	:	:
	:	:
	:	:

EAGLE CANYON CREEK NEAR ELLWOOD

Location.- Lat. 34°28'50", long. 119°56'00", at uppermost diversion about 0.2 mile above middle fork of Eagle Canyon Creek and about 2.9 miles north of Highway 101.

Altitude.- About 425 feet, from topographic map.

Description.- Measuring site above junction box (stamped Smith Bros. 1924)

Diversion.- None above measuring point.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Feb. 15, 1946		: less than	:
		: 0.02	: less than 9
Mar. 15	(3:30 p.m.)	: less than	:
		: .01	: less than 5
Apr. 7, 1947	(3:50 p.m.)	: .01	: 4.5
May 5	(3:20 p.m.)	: .01	: 4.5
Dec. 5	(10:10 a.m.)	: No flow	: No flow
Jan. 9, 1948	(9:30 a.m.)	: No flow	: No flow
Feb. 18	(9:05 a.m.)	: No flow	: No flow
Mar. 18	(9:30 a.m.)	: No flow	: No flow
Apr. 15	(9:00 a.m.)	: No flow	: No flow
May 14	(8:15 a.m.)	: No flow	: No flow
June 11	(9:30 a.m.)	: No flow	: No flow
July 21	(7:30 a.m.)	: No flow	: No flow
Aug. 19	(9:15 a.m.)	: No flow	: No flow
Sept. 15	(8:30 a.m.)	: No flow	: No flow
Oct. 19	(10:30 a.m.)	: No flow	: No flow
Nov. 17	(10:45 a.m.)	: No flow	: No flow
Dec. 13		: No flow	: No flow
Jan. 17, 1949	(2:20 p.m.)	: .0020	: .91
Mar. 16	(10:10 a.m.)	: .073	: 33
Apr. 25	(9:15 a.m.)	: .015	: 6.7
		:	:
		:	:
		:	:
		:	:

DOS PUEBLOS CREEK NEAR NAPLES.

Location.- Lat. $34^{\circ}29'10''$, long. $119^{\circ}57'10''$, at diversion of Dos Pueblos Ranch about 2.6 miles north of Highway 101 and about 2.9 miles north of Naples.

Established.- Recorder started at 3:00 p.m., Feb. 21, 1949.

Gage.- Recorder Stevens type F # 12805-49 (8 day)

Altitude.- About 520 feet, from topographic map.

Description.- Control is a combination 90° V-notch weir and overflow weir. Measuring site about 150 feet upstream.

Diversion.- No known diversions above station.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Feb. 15, 1946	(10:50 a.m.)	: 0.91	: 410
Mar. 15	(2:40 p.m.)	: .75	: 340
Apr. 18	(8:35 a.m.)	: 1.20	: 540
May 5, 1947	(2:30 p.m.)	: .52	: 230
June 18	(9:00 a.m.)	: .40	: 180
July 17	(8:40 a.m.)	: .40	: 180
Aug. 7	(2:15 p.m.)	: .17	: 76
Sept. 10	(8:35 a.m.)	: .40	: 180
Oct. 2	(8:45 a.m.)	: .29	: 130
Dec. 5	(9:10 a.m.)	: .49	: 220
Jan. 5, 1948	(8:50 a.m.)	: .58	: 260
Feb. 18	(8:20 a.m.)	: .67	: 300
Mar. 18	(8:45 a.m.)	: .47	: 210
Apr. 16	(8:35 a.m.)	: .64	: 290
May 14	(7:40 a.m.)	: .47	: 210
June 11	(8:45 a.m.)	: .39	: 180
July 21	(9:10 a.m.)	: .33	: 150
Aug. 19	(8:50 a.m.)	: .19	: 85
Sept. 15	(7:20 a.m.)	: .052	: 23
Oct. 19	(11:10 a.m.)	: .27	: 120
Oct. 22	(2:50 p.m.)	: .28	: 130
Oct. 22	(3:05 p.m.)	: .21	: 94
Oct. 22	(3:20 p.m.)	: .21	: 94
Nov. 2		: .23	: 100
Nov. 17	(12-noon)	: .26	: 120
Dec. 14	(12:55 p.m.)	: .36	: 160
Jan. 17, 1949	(3:45 p.m.)	: .47	: 210
Feb. 2	(12:35 p.m.)	: .50	: 220
Feb. 7	(11:05 a.m.)	: .88	: 400
Mar. 4	(10:15 a.m.)	: 7.2	: 3200
Mar. 11	(12:25 p.m.)	: 6.9	: 3100
Mar. 16	(8:40 a.m.)	: 2.09	: 940
Mar. 29	(3:05 p.m.)	: .89	: 400
Apr. 25	(8:10 a.m.)	: .54	: 240
		:	:
		:	:
		:	:

SPRING - W. H. WOODS

Location.- Lat. $34^{\circ}29'30''$, long. $119^{\circ}57'50''$

Altitude.- About 750 feet, from topographic map.

Description.- Seepage intercepted by 345 foot tunnel in mountainside. Discharge measured at end of pipe line to reservoir.

DATE	DISCHARGE	
	: Second-feet	: Gals per min.
Nov. 1, 1948 (11:00 a.m.)	: 0.004	: 1.8
Nov. 18	: .0036	: 1.6
Jan. 18, 1949 (10:25 a.m.)	: .0055	: 2.4
Mar. 15 (3:00 p.m.)	: .026	: 12
Apr. 27 (10:50 a.m.)	: .0075	: 3.4
	:	:
	:	:

LAS VARAS CANYON CREEK ABOVE DIVERSIONS.

Location.- Lat. $34^{\circ}29'20''$, long. $119^{\circ}57'50''$, at end of roadway, above Lemon Grove in Las Varas Canyon about 2.3 miles north of Highway 101.

Altitude.- About 550 feet, from topographic map.

Description.- Measuring site in stream channel above uppermost diversion.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 29, 1948	: No flow	:
Dec. 14 (1:25 p.m.)	: No flow	:
Jan. 18, 1949 (10:00 a.m.)	: No flow	:
	:	:
	:	:
	:	:

SPRING - W. H. WOODS

Location.- Lat. $34^{\circ}29'00''$, long. $119^{\circ}58'10''$

Altitude.- About 850 feet, from topographic map.

Description.- Uncurbed seep in narrow valley on hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals per min.
Nov. 18, 1948	: No flow	:
Mar. 29, 1949	: No flow	:
	:	:
	:	:

LAS VARAS CANYON CREEK AT UPPER DOTY DIVERSION

Location.- Lat. $34^{\circ}28'50''$, long. $119^{\circ}57'50''$, at diversion dam in Las Varas Canyon on Russell E. Doty property, about 18 miles north of Highway 101.

Altitude.- About 400', from topographic map.

Description.- Measuring site in natural channel above diversion. Diversion made through a 3-inch line to wooden tank about 2,000 feet downstream.

Diversion.- There are several diversions above this point of measurement.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 13, 1948	: No flow	: No flow
Jan. 18, 1949 (10:05 a.m.)	: No flow	: No flow
Mar. 29 (12:45 p.m.)	: No flow	: No flow
Apr. 27 (10:40 a.m.)	: No flow	: No flow
	:	:
	:	:

SPRING - W. L. RUTHERFORD

Location .- Lat. $34^{\circ}28'40''$, long. $119^{\circ}56'10''$

Altitude .- About 420 feet, from topographic map.

Description .- Large concrete spring box in creek bed.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 18, 1948	: No flow	:
Jan. 18, 1949	: No flow	:
	:	:
	:	:
	:	:

SPRING - RUSSELL E. DOTY

Location. - Lat. $34^{\circ}28'00''$, long. $119^{\circ}58'10''$

Altitude. - About 270 feet, from topographic map.

Description. - Tunnel driven 30 feet into hillside. No way to measure discharge.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 13, 1948	: -	:
Jan. 18, 1949	: -	:
Mar. 29	: -	:
	:	:
	:	:

LAS VARAS CANYON CREEK AT LOWER DOTY DIVERSION

Location.- Lat. $34^{\circ}28'00''$, long. $119^{\circ}58'00''$, at diversion dam in Las Varas Canyon on Russell E. Doty property, about 0.7 mile north of Highway 101.

Altitude.- About 240', from topographic map.

Description.- Discharge obtained by measuring the diversion and waste bypassing the diversion.

Diversions.- Several above.

Remarks.- This is lowest diversion in canyon with several diversions and deep wells above.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 13, 1948	: 0.013	: 5.95
Jan. 18, 1949 (9:00 a.m.)	: .014	: 6.4
Mar. 29 (12:20 p.m.)	: .018	: 8.1
Apr. 27 (10:20 a.m.)	: .017	: 7.6
	:	:

GATO CANYON CREEK ABOVE DIVERSIONS

Location.- Lat. $34^{\circ}29'50''$, $119^{\circ}58'10''$, at end of roadway up Gato Canyon, about 2.8 miles north of Highway 101.

Altitude.- About 1,100 feet, from topographic map.

Description.- Measuring site in stream channel about 50 feet above diversion. During low flow periods, volumetric measurements made in junction box about 200 feet below point of diversion, owned by Edwards estate.

Diversion.- No known diversions above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 1, 1948 (9:30 a.m.)	: No flow	: No flow
Nov. 17 (12:45 p.m.)	: No flow	: No flow
Nov. 22	: No flow	: No flow
Nov. 30 (11:30 a.m.)	: No flow	: No flow
Dec. 14 (12:15 p.m.)	: No flow	: No flow
Jan. 18, 1949 (12-noon)	: 0.050	: 22
Mar. 24 (9:40 a.m.)	: .56	: 250
Apr. 27 (12:30 p.m.)	: .063	: 28
	:	:

SPRING - GILA LAND COMPANY

Location.- Lat. $34^{\circ}29'20''$, long. $119^{\circ}59'30''$

Altitude.- About 400 feet, from topographic map.

Description.- Uncurbed seeps in small valley west side Las Vegas Creek.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 23, 1948 (estimated)	: 0.0006	: 0.25
	:	:
	:	:
	:	:
	:	:

LAS YEGUAS CANYON CREEK

Location.- Lat. $34^{\circ}28'20''$, long. $119^{\circ}59'30''$, in Las Yeguas Canyon at road-crossing about 0.9 mile north of Highway 101.

Altitude.- About 190 feet, from topographic map.

Description.- Measurements made volumetrically or with current meter in the channel near the road-crossing.

Diversions.- No known diversions above station.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Nov. 1, 1948	(8:45 a.m.)	: 0.004	: 1.8
Nov. 17	(1:15 p.m.)	: .017	: 7.8
Nov. 23		: .017	: 7.8
Nov. 30		: .019	: 8.6
Dec. 14	(11:45 a.m.)	: .024	: 11
Jan. 18, 1949	(1:30 p.m.)	: .032	: 14
Mar. 15, 1949	(12:45 p.m.)	: .096	: 43
Apr. 27	(9:40 a.m.)	: .054	: 24
		:	:

SPRING - EDWARDS ESTATE

Location.- Lat. $34^{\circ}28'00''$, long. $119^{\circ}59'30''$

Altitude.- About 130 feet from topographic map.

Description.- Wood-curbed spring box, 8 feet by 12 feet, east side of Las Yeguas Creek, at foot sandstone bluff. Discharge measured at 1-3/4 inch overflow pipe from spring box.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 23, 1948	: 0.020	: 9.2
Mar. 29, 1949 (10:35 a.m.)	: .027	: 12
Apr. 27 (9:25 a.m.)	: .026	: 12
	:	:

LAS YEGUAS CANYON CREEK AT HIGHWAY 101.

Location.- Lat. $34^{\circ}27'40''$, long. $120^{\circ}00'00''$, at Highway 101 road-crossing, about 0.2 mile north of the Pacific Ocean.

Altitude.- About 40', from topographic map.

Description.- Measuring site in the natural stream channel just below the bridge culvert.

Diversion.- Edwards Estate diverts from Spring #62 above.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 23, 1948	: 0.11	: 50
Jan. 18, 1949 (2:05 p.m.)	: .16	: 72
Mar. 15 (1:05 p.m.)	: .25	: 110
Apr. 27 (9:50 a.m.)	: .16	: 71
	:	:

SPRING - GILA LAND COMPANY

Location. - Lat. $34^{\circ}28'10''$, long. $120^{\circ}00'30''$

Altitude. - About 230 feet, from topographic map.

Description. - Seep in creek bed.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 24, 1948	: Almost dry	: Almost dry
Jan. 18, 1949	: 0.0020	: 0.88
Mar. 29 (11:30 a.m.)	: .0044	: 2.0
	:	:
	:	:
	:	:

CANADA DEL CAPITAN CREEK ABOVE GILA LAND COMPANY DIVERSION

Location.-- Lat. $34^{\circ}29'40''$, long. $120^{\circ}00'20''$, above diversion at end of roadway, about 2.4 miles north of highway 101.

Altitude.-- About 800 feet, from topographic map.

Description.-- Measuring site in natural channel about 200 feet upstream of the concrete diversion dam of Gila Land Company.

Diversion.-- No known diversions above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948 (11:10 a.m.)	: 0.094	: 42
Nov. 17 (2:10 p.m.)	: .037	: 17
Nov. 24	: .036	: 16
Nov. 30 (10:00 a.m.)	: .072	: 32
Dec. 14 (10:50 a.m.)	: .17	: 76
Jan. 18, 1949 (3:10 p.m.)	: .20	: 90
Mar. 15 (11:35 a.m.)	: 1.08	: 485
Apr. 27 (8:35 a.m.)	: .30	: 135
	:	:
	:	:

SPRING - GEORGE M. WILLIAMS ESTATE

Location.- Lat. $34^{\circ}29'10''$, long. $120^{\circ}02'10''$

Altitude.- About 300 feet from topographic map.

Description.- Seepage at foot of sandstone cliff.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 16, 1948 (estimated)	: 0.001	: 0.67
Jan. 19, 1949 (9:15 a.m.)	: .0031	: 1.4
Mar. 29 (9:15 a.m.)	: .0031	: 1.4
	:	:
	:	:

CANADA DEL CORRAL CREEK

Location.- Lat. $34^{\circ}29'00''$, long. $120^{\circ}02'20''$, in Canada del Corral about 1.4 miles north of Highway 101.

Altitude.- About 250 feet, from topographic map.

Description.- Measuring site in natural channel at or near cattle pen.

Diversion.- From one spring above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948 (10:15 a.m.)	: 0.031	: 14
Nov. 19 (9:15 a.m.)	: .037	: 17
Nov. 30 (9:05 a.m.)	: .022	: 9.9
Dec. 14 (10:00 a.m.)	: .029	: 13
Jan. 19, 1949 (9:30 a.m.)	: .11	: 50
Mar. 15 (10:20 a.m.)	: 1.02	: 460
	:	:
	:	:
	:	:
	:	:

N/O Station 69

STATION 68

SPRING - GEORGE M. WILLIAMS ESTATE

Location.- Lat. $34^{\circ}29'20''$, long. $120^{\circ}02'30''$

Altitude.- About 350 feet, from topographic map.

Description.- Flow from narrow canyon in sandstone. Discharge measured at outlet of natural pool.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 16, 1948	: 0.0089	: 4.0
Jan. 19, 1949 (10:30 a.m.)	: .0076	: 3.4
Mar. 29 (9:45 a.m.)	: .011	: 4.9
	:	:
	:	:

SPRING - COVARRUBIAS ESTATE

Location.- Lat. $34^{\circ}28'20''$, long. $120^{\circ}02'30''$

Altitude.- About 100 feet, from topographic map.

Description.- Seepage into creek above diversion dam. Discharge measured at sandbox about 120 feet downstream from diversion dam.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 16, 1948	: 0.0045	: 2.0
Mar. 29, 1949 (8:40 a.m.)	: .40	: 180
	:	:
	:	:
	:	:
	:	:

SPRING - U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}30'20''$, long. $120^{\circ}03'20''$

Altitude.- About 600 feet from topographic map.

Description.- Pool at foot of 3-foot drop in stream bed. Seepage also into creek bed for 50 feet downstream.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 17, 1948 (estimated)	: 0.0007	: 0.3
Jan. 21, 1949 (10:15 a.m.)	: .0023	: 1.05
	:	:
	:	:
	:	:

SPRING - U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}30'10''$, long. $120^{\circ} 03'20''$

Altitude.- About 550 feet, from topographic map.

Description.- Pool in hole on hillside, about 200 feet east of creek.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 17, 1948	: No flow	: No flow
Jan. 21, 1949	: 0.0012	: 0.052
	:	:
	:	:
	:	:

SPRING - ERRO ESTATE

Location.- Lat. $34^{\circ}29'40''$, long. $120^{\circ}03'20''$

Altitude.- About 430 feet, from topographic map.

Description.- Pool in creek bottom on sandstone beds.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 17, 1948	: No flow	: No flow
Jan. 21, 1949 (9:40 a.m.)	: 0.0014	: 0.62
	:	:
	:	:
	:	:

CANADA DEL VENADITO CREEK

Location.- Lat. $34^{\circ}29'40''$, long. $120^{\circ}03'20''$, in Canada del Venadito, about 2.3 miles north of Highway 101.

Altitude.- About 430 feet, from topographic map.

Description.-Measuring site in stream channel at end of road.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948 (9:30 a.m.)	: No flow	: No flow
Nov. 30 (8:45 a.m.)	: No flow	: No flow
Dec. 14 (9:30 a.m.)	: No flow	: No flow
Mar. 15, 1949 (9:45 a.m.)	: No flow	: No flow
	:	:
	:	:

SPRING - GEORGE M. WILLIAMS ESTATE

Location.- Lat. $34^{\circ}28'40''$, long. $120^{\circ}03'20''$

Altitude.- About 200 feet, from topographic map.

Description.- Seepage into uncurbed pool in narrow valley on hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 17, 1948	: No flow	: No flow
Jan. 21, 1949 (9:15 a.m.)	: 0.00028	: 0.13
Mar. 29 (8:10 a.m.)	: No flow	: No flow
	:	:
	:	:

SPRING - D. A. SATTLER

Location.- Lat. $34^{\circ}31'50''$, long. $120^{\circ}03'00''$

Altitude.- About 2,230 feet, from topographic map.

Description.- Stone-curbed seep, wood-curbed seep and minor uncurbed seeps in alluvium of steep canyon bottom. Discharge measured as overflow from settling box.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 27, 1948	: 0.010	: 4.6
Dec. 2	: .010	: 4.6
	:	:
	:	:
	:	:

SPRING - D. A. SATTLER

Location.- Lat. $34^{\circ}32'00''$, long. $120^{\circ}03'20''$,

Altitude.- About 2,270 feet from topographic map.

Description.- Wood-curbed seep in alluvium on hillside. Discharge measured at end of 1-inch pipe leading to tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 27, 1948	: 0.00040	: 0.18
Dec. 17	: .00042	: .19
Jan. 27, 1949 (3:00 p.m.)	: No meas.	:
	:	:
	:	:

WELL - FERMIN DE PONCE

Location.- Lat. $34^{\circ}31'40''$, long. $120^{\circ}03'20''$

Altitude.- About 1,900 feet, from topographic map.

Description.- Stone-curbed well, 9 feet deep near bottom of canyon.

DATE	:	DISCHARGE	:	ALTITUDE OF WATER TABLE
	:		:	BELOW COVER
	:	Second-feet	:	Feet
Nov. 15, 1948	:	No flow	:	4.41
Jan. 27, 1949 (3:40 p.m.)	:	No flow	:	4.01
	:		:	
	:		:	
	:		:	

SPRING - MRS. FLORENCE BROWN

Location.- Lat. $34^{\circ}31'30''$, long. $120^{\circ}03'20''$

Altitude.- About 1,800 feet, from topographic map.

Description.- Stone-curbed pool west side of creek. Discharge measured at end of $3/4$ -inch line, about 2,000 feet southeast of spring.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 8, 1948	: 0.00085	: 0.38
Jan. 28, 1949 (11:20 a.m.)	: .0011	: .51
	:	:
	:	:
	:	:
	:	:

SPRING - SARALEGUI ESTATE

Location.- Lat. $34^{\circ}31'10''$, long. $120^{\circ}04'00''$

Altitude.- About 1,300 feet, from topographic map.

Description.- Spring rises through weathered shale on hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 8, 1948	: 0.018-.022	: 8-10
Jan. 28, 1949 (2:00 p.m.)	: .019	: 8.6
	:	:
	:	:
	:	:

CANADA DEL REFUGIO CREEK

Location.- Lat. $34^{\circ}31'00''$, long. $102^{\circ}04'00''$, at roadway to Florence Brown cabins about $\frac{1}{4}$ mile above Refugio Pass Road and about 0.5 mile north of Refugio Guard Station.

Altitude.- About 900 feet, from topographic map.

Description.- Measuring site in natural stream channel

Diversion.- No known diversions above station.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
:	:	:
:	:	:
:	:	:
:	:	:
:	:	:

SPRING - MRS. FLORENCE BROWN

Location.- Lat. $34^{\circ}31'00''$, long. $120^{\circ}03'30''$

Altitude.- About 1,250 feet from topographic map.

Description.- Two small short tunnels dug into sandstone cliff about 45 feet above stream bed.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 15, 1948	: 0.0041	: 1.85
Jan. 21, 1949 (3:25 p.m.)	: .0069	: 3.1
	:	:
	:	:
	:	:

SPRING - MRS. FLORENCE BROWN

Location.- Lat. $34^{\circ}30'50''$, long. $120^{\circ}03'40''$

Altitude.- About 1,200 feet, from topographic map.

Description.- Drilled hole into sandstone cliff, 25 feet above creek. Discharge measured at end of $\frac{1}{2}$ -inch pipe.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 3, 1948	: 0.0026	: 1.17
Jan. 21, 1949	: .0046	: 2.1
	:	:
	:	:
	:	:

WELL - JOHN GANGOLFO

Location. - Lat. 34°31'50", 120°04'10"

Altitude. - About 2,250 feet, from topographic map.

Description. - Stone-curbed well, 15 feet deep.

DATE	DEPTH TO WATER IN FEET BELOW REFERENCE POINT
Nov. 9, 1948	: Well dry
Jan. 28, 1949 (10:40 a.m.)	: Well dry
Mar. 28 (10:30 a.m.)	: 19.1
	:
	:
	:

SPRING - WILLIAM FELIZ

Location.- Lat. $34^{\circ}31'30''$, Long. $120^{\circ}04'30''$

Altitude.- About 2,000 feet, from topographic map.

Description.- Seepage from hole dug into hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 2, 1948	: No flow	: No flow
Jan. 28, 1949 (10:15 a.m.)	: No flow	: No flow
Mar. 28 (10:05 a.m.)	: 0.0010	: 0.45
	:	:

SPRING - C. DAL POZZO & ALEGRIA ESTATE

Location.- Lat. $34^{\circ}30'10''$, long. $120^{\circ}04'00''$

Altitude.- About 420 feet, from topographic map.

Description.- Seepage at foot of sandstone cliff. Discharge measured at east side of culvert under road.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Nov. 3, 1948	: 0.0018	: 0.82
Dec. 2	: .0017	: .77
Jan. 21, 1949 (1:20 p.m.)	: .0032	: 1.4
Mar. 28 (9:45 a.m.)	: .0036	: 1.6
	:	:
	:	:
	:	:

SPRING -- JOHN ALEGRIA

Location. - Lat. $34^{\circ}30'10''$, long. $120^{\circ}03'40''$

Altitude. - About 450 feet from topographic map.

Description. - Drilled hole in sandstone cliff. Discharge measured by disconnecting union in pipe line near spring.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Jan. 28, 1949 (9:25 a.m.)	: 0.0024	: 1.09
Mar. 28 (9:30 a.m.)	: .0042	: 1.9
	:	:
	:	:
	:	:

SPRING - M. F. ERRO

Location.- Lat. $34^{\circ}28'20''$, long. $120^{\circ}04'10''$

Altitude.- About 100 feet, from topographic map.

Description.- Uncurbed seep at foot of bluff, west side Refugio Creek. Discharge at end of 2-inch pipe to stock trough.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 2, 1948	: 0.0019	: 0.87
Jan. 21, 1949 (11:40 a.m.)	: .0020	: .90
Mar. 28 (8:45 a.m.)	: .0017	: .77
	:	:

SPRING - M. F. ERRO

Location.- Lat. $34^{\circ}28'20''$, long. $120^{\circ}04'10''$

Altitude.- About 100 feet, from topographic map

Description.- Seepage collected in shallow ditch at foot of bluff, west side Refugio Creek. Discharge measured at end of 2-inch pipe to stock trough.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 2, 1948	: 0.00067	: 0.30
Jan. 21, 1949 (11:45 a.m.)	: .00017	: .075
Mar. 28, (8:30 a.m.)	: .000033	: .015
	:	:

SPRING - M. F. ERRO

Location.- Lat. $34^{\circ}28'00''$, long. $120^{\circ}04'10''$,

Altitude.- About 70 feet, from topographic map.

Description.- Wood-curbed spring at foot of bluff. Measured discharge represents total flow into two stock troughs.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 7, 1948	: 0.010	: 4.5
Jan. 21, 1949 (11:25 a.m.)	: .0095	: 4.3
Mar. 28 (8:15 a.m.)	: .0090	: 4.0
	:	:
	:	:

SPRING - TOM KINEVAN

Location. - Lat. $34^{\circ}30'30''$, long. $119^{\circ}50'00''$

Altitude. - About 2,380 feet from topographic maps.

Description. - Open pool in alluvial veneer on sandstone.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 15, 1948	: No flow	: No flow
Apr. 13 (1:10 p.m.)	: a No flow	: a No flow
	:	:
	:	:
	:	:

a (W.S. 1.63 ft. below ref.point.)

SPRING - MRS. NELL K. REAM

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}50'00''$

Altitude.- About 2,340 feet from topographic map.

Description.- Seep in alluvial veneer on sandstone.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
June 15, 1948		: Practially	:
		: dry	:
Feb. 15, 1949		: Practially	:
		: dry	:
Apr. 13	(1:00 p.m.)	: 0.00060	: 0.27

SPRING - MRS. NELL K. REAM

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}50'00''$

Altitude.- About 2,320 feet, from topographic map.

Description.- Covered pool in alluvium on sandstone in creek bed. Discharge measured at inflow to settling box.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 15, 1948	: 0.0085	: 3.8
Feb. 15, 1949	: .0089	: 4.0
Apr. 13, (12:55 p.m.)	: .010	: 4.5
	:	:
	:	:

SPRING - TOM KINEVAN

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}50'00''$

Altitude.- About 2,350 feet, from topographic map.

Description.- Covered seep in alluvial veneer on sandstone. Discharge measured as inflow to storage tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 15, 1948	: 0.0047	: 2.1
Feb. 15, 1949	: .0051	: 2.3
Apr. 13 (12:50 p.m.)	: .0067	: 3.0
	:	:
	:	:

SPRING - P. C. BRYCE, U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}30'10''$, long. $119^{\circ}51'40''$

Altitude.- About 2,900 feet, from topographic map.

Description.- Plank-curbed and covered pool in alluvium on sandstone in creek bottom.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 17, 1948	: Practically	: Practically
	: dry	: dry
Feb. 10, 1949	: 0.0047	: 2.1
Apr. 13 (9:15 a.m.)	: .0024	: 1.1
	:	:

SPRING - MARY KINEVAN

Location.- Lat. $34^{\circ}30'50''$, long. $119^{\circ}50'50''$

Altitude.- About 2,500 feet, from topographic map.

Description.- Cement-curbed seep in alluvium on hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 20, 1948	: No flow	: No flow
Feb. 15, 1949	: No flow	: No flow
Apr. 12 (9:10 a.m.)	: No flow	: No flow
	:	:
	:	:

SPRING - MRS. ADELAIDE OVINGTON

Location.- Lat. $34^{\circ}31'10''$, long. $119^{\circ}50'20''$

Altitude.- About 1,850 feet, from topographic map.

Description.- Seeps in landslide on valley side. Discharge measured at settling box. These measurements do not include the discharge of the upper and lower undeveloped springs.

DATE	DISCHARGE AT		UPPER UNDE-		LOWER UNDE-	
	SETTLING BOX		VELOPED SPRING		VELOPED SPRING	
	Second-	Gals.	Second-	Gals.	Second-	Gals.
	feet	per min.	feet	per min.	feet	per min.
1948	:	:	:	:	:	:
June 24	: 0.0024	: 1.1	: -	: -	: -	: -
1949	:	:	:	:	:	:
Feb. 15	: .0018	: .83	: 0.0069	: 3.1	: 0.0045	: 2.0
Apr. 12 (8:30 a.m.)	: .0026	: 1.2	: -	: -	: -	: -
	:	:	:	:	:	:
	:	:	:	:	:	:

COLD SPRING CANYON CREEK AT HIGHWAY 150

Location.- Lat. $34^{\circ}31'20''$, Long. $119^{\circ}50'20''$, below the principal forks at Highway 150.

Altitude.- About 1,600 feet, from topographic map.

Description.- Measuring site in natural channel at Highway culvert.

Diversion.- Diversion of about 2 miner's inches occurs above measuring site.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 29, 1948 (12:45 p.m.)	: No flow	: No flow
Nov. 5 (11:20 a.m.)	: No flow	: No flow
Dec. 15 (11:45 a.m.)	: No flow	: No flow
Jan. 31, 1949 (11:15 a.m.)	: 0.018	: 8.0
Apr. 18 (1:30 p.m.)	: .033	: 15

SPRING - U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}52'40''$

Altitude.- About 2,475 feet, from topographic map.

Description.- Seeps in alluvium on hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Aug. 19, 1948	: No flow	: No flow
Feb. 10, 1949	: No flow	: No flow
Apr. 13 (8:30 a.m.)	: No flow	: No flow
	:	:
	:	:

SPRING - P. C. BRYCE, U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}30'40''$, long. $119^{\circ}52'20''$

Altitude.- About 2,025 feet, from topographic map.

Description.- Seeps in alluvium on creek bed and valley well.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Aug. 19, 1948		: Less than	:
		: 0.002	: Less than 1
Feb. 10, 1949		: Less than	:
		: .002	: Less than 1
Apr. 13	(8:45 a.m.)	: .0013	: 0.59

SPRING - IRVING WILLS

Location.- Lat. 34°31'40", long. 119°51'30"

Altitude.- About 1,280 feet, from topographic map.

Description.- Seep in alluvium on shale. Discharge measured at inflow to settling box from upper 2-inch line.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 25, 1948	: 0.0042	: 1.9
Feb. 28, 1949	: a .014	: a 6.2
	:	:
	:	:

a Combined discharge springs 101 & 102.

STATION 102

SPRING - IRVING WILLS

Location.- Lat. $34^{\circ}31'50''$, long. $119^{\circ}51'40''$

Altitude.- About 1,100 feet from topographic map.

Description.- Seep in alluvium on creek bed. Discharge measured as inflow to settling box from lower pipe.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 25, 1948 (estimated)	: 0.01	: 4.4
	:	:
	:	:
	:	:
	:	:

STATION 103

SPRING - S. A. NASH-BOULDAN, U. S. FOREST SERVICE

Location.- Lat. 34°31'50", long. 119° 51'50"

Altitude.- About 1,100 feet, from topographic map.

Description.- Seeps in alluvium on valley side. Discharge measured from rate of recovery of water level after it had been bailed below certain level.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 25, 1948	: Not measured	: Not measured
Feb. 16, 1949 (1:15 p.m.)	: 0.0013	: 0.58
	:	:
	:	:

UNNAMED CREEK TRIBUTARY TO LOS LAURELES CANYON CREEK

Location.- Lat. $34^{\circ}32'10''$, long. $119^{\circ}51'30''$, above Highway 150.

Altitude.- About 850 feet, from topographic map.

Description.- Measuring site in natural stream channel.

Diversions.- Diversions above from springs 101, 102 and 103, by Irving Wills and Nash-Bouldan.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Oct. 29, 1948	(12:05 p.m.)	: No flow	: No flow
Nov. 5	(10:50 a.m.)	: No flow	: No flow
Dec. 15	(11:35 a.m.)	: No flow	: No flow
Jan. 31, 1949	(10:55 a.m.)	: 0.13	: 58
Mar. 16	(12:40 p.m.)	: .80	: 359
Apr. 18	(2:00 p.m.)	: .18	: 82
		:	:
		:	:

SPRING - A. DOWLING

Location.- Lat. $34^{\circ}32'20''$, long. $119^{\circ}51'50''$

Altitude.- About 920 feet, from topographic map.

Description.- Small spring in debris filled draw and stone-curbed spring in adjacent draw connected together and piped to storage tank. Discharge measured at end of 1-inch pipe line to storage tank.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Mar. 2, 1949	(10:00 a.m.)	: 0.0011	: 0.50
Apr. 20	(11:30 a.m.)	: .0024	: 1.07
		:	:
		:	:
		:	:

SPRING - A. DOWLING

Location.- Lat. $34^{\circ}32'20''$, long. $119^{\circ}52'00''$

Altitude.- About 1,000 feet, from topographic map.

Description.- Wood-curbed spring box in draw, 4-inch horizontal well (187 feet long) and two small seeps connected together and piped to house or storage tank. Discharge measured at sunken concrete storage tank below swimming pool.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Mar. 2, 1949	(10:20 a.m.)	: 0.0031	: 1.4
Apr. 20	(12-noon)	: pumping	: pumping
		:	:
		:	:
		:	:

HOT SPRINGS CREEK AT MOUTH NEAR SANTA BARBARA.

Location.- Lat. $34^{\circ}32'40''$, $119^{\circ}52'50''$, at Highway 150 crossing about 0.5 mile above junction with Santa Ynez River.

Altitude.- About 825 feet, from topographic map.

Description.- Measuring site in natural channel just upstream of the Highway.

Diversion.- One diversion of $1\frac{1}{2}$ miner's inch above, reported by manager of Murphy Ranch.

Previous measurements.- 1935 to 1946.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Oct. 29, 1948		: 0.40	: 180
Nov. 18	(1:25 p.m.)	: .31	: 140
Nov. 30	(2:50 p.m.)	: .33	: 150
Dec. 15	(11:15 a.m.)	: .44	: 200
Jan. 31, 1949	(10:30 a.m.)	: .47	: 210
Mar. 18	(12:30 p.m.)	: .72	: 320
Apr. 18	(2:20 p.m.)	: .44	: 200

UNNAMED CREEK TRIBUTARY TO SANTA YNEZ RIVER

Location.- Lat. $34^{\circ}33'10''$, long. $119^{\circ}54'40''$, at a site along Highway 150 and about 1.0 mile above junction with the Santa Ynez River.

Altitude.- About 800 feet, from topographic map.

Description.- Measuring site in natural stream channel.

Diversion.- None reported above station.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Nov. 5, 1948	(10:15 a.m.)	: No flow	: No flow
Dec. 15	(11:00 a.m.)	: No flow	: No flow
Mar. 18, 1949	(1:00 p.m.)	: 0.28	: 130
Apr. 18		: .061	: 27
		:	:

SPRING - T. M. STORKE

Location.- Lat. $34^{\circ}32'50''$, long. $119^{\circ}56'10''$

Altitude.- About 1,190 feet from topographic map.

Description.- Wood-curbed seep in alluvium in creek bed. Discharge obtained by bailing water from spring and measuring the rate of recovery.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
July 20, 1948		: No meas.	: No measurement
Dec. 16		: No meas.	: No measurement
Feb. 3, 1949	(3:30 p.m.)	: 0.0024	: 1.1
Mar. 22	(12:35 p.m.)	: .064	: 29
Apr. 21	(11:30 a.m.)	: .014	: 6.4
		:	:
		:	:
		:	:

SPRING - T. M. STORKE

Location.- Lat. $34^{\circ}33'00''$, long. $119^{\circ}56'10''$

Altitude.- About 1,185 feet from topographic map.

Description.- Two wood-curbed seeps on valley side. Discharge measured at aerator. Water has a "Sulphur" odor and taste.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 20, 1948 (estimated)	: 0.0014	: 0.65
Dec. 16	: .0010	: .46
Feb. 3, 1949 (3:15 p.m.)	: .0013	: .58
Mar. 22 (12:10 p.m.)	: .0022	: .98
Apr. 21 (11:00 a.m.)	: .0021	: .94
	:	:

BLAR CANYON CREEK ABOVE STORKE DIVERSION

Location.- Lat. $34^{\circ}32'30''$, $119^{\circ}56'30''$, at diversion dam 1.2 miles southwest of Storke residence.

Altitude.- About 1,600 feet, from topographic map.

Description.- Measuring site just above Storke diversion dam.

Diversion.- None reported above station.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
July 3, 1948	(estimated)	0.002	1
Dec. 16		.0027	1.2
Feb. 3, 1949	(4:30 p.m.)	.0095	4.3
Mar. 22	(11:10 a.m.)	.031	14
Apr. 21	(10:30 a.m.)	.0089	4.0
		:	:

SPRING - DAVID GRAY, JR.

Location.- Lat. $34^{\circ}32'40''$, long. $119^{\circ}56'40''$

Altitude.- About 1,600 feet, from topographic map.

Description.- Wood-curbed spring in hillside. Discharge measured at spring.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 16, 1948	: 0.00094	: 0.42
Feb. 3, 1949 (5:45 p.m.)	: .0011	: .50
Mar. 22 (10:30 a.m.)	: .0016	: .70
Apr. 21 (10:00 a.m.)	: .0012	: .56

STATION 124

SPRING - T. M. STORKE

Location.- Lat. $34^{\circ}33'20''$, long. $119^{\circ}55'40''$

Altitude.- About 850 feet, from topographic map.

Description.- Three wood-curbed seeps in alluvium capping terrace. Discharge measured as inflow to galvanized corrugated storage tank.

DATE	:	DISCHARGE	
		: Second-feet	: Gals. per min.
July 20, 1948 (estimated)	:	0.0003	: 0.14
Dec. 16	:	.00040	: .18
Feb. 3, 1949 (2:00 p.m.)	:	.00020	: .088
Mar. 22 (1:40 p.m.)	:	.000045	: .020
Apr. 21 (12-noon)	:	.00019	: .086

SPRING - T. M. STORKE

Location.- Lat. $34^{\circ}33'20''$, long. $119^{\circ}55'40''$

Altitude.- About 850 feet, from topographic map.

Description.- Wood-curbed seep in alluvium capping terrace. Discharge measured as inflow to stock tank.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
July 20, 1948	: 0.000078:	0.035
Dec. 16	: .000080:	.036
Feb. 3, 1949 (1:20 p. m.)	: .000089:	.040
Mar. 22 (2:10 p.m.)	: .00022 :	.099
Apr. 21 (12:20 p.m.)	: .00024 :	.11

UNNAMED TRIBUTARY TO SANTA YNEZ RIVER ABOVE GRAY DIVERSION

Location.- Lat. $34^{\circ}32'40''$, long. $119^{\circ}56'50''$, above Gray diversion about 1.7 miles south of Highway 150.

Altitude.- About 1,600 feet, from topographic map.

Description.- Just below wooden catchment box in creek bed, operated by David Gray Jr.

Diversion.- None reported above station.

DATE	DISCHARGE	
	Second-feet	Gals. per min..
Dec. 16, 1948	No flow	No flow
Feb. 3, 1949 (5:20 p.m.)	No flow	No flow
Mar. 22 (10:00 a.m.)	0.0013	0.58
Apr. 21 (9:15 a.m.)	.0076	3.4
	:	:
	:	:

SPRING - DAVID GRAY, JR.

Location.- Lat. $34^{\circ}32'50''$, long. $119^{\circ}56'50''$

Altitude.- About 1,580 feet, from topographic map.

Description.- Drilled hole into sandstone exposure. Discharge measured at end of hose into earth reservoir.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Dec. 16, 1948		: 0.00025	: 0.11
Feb. 3, 1949	(5:10 p.m.)	: No flow	: No flow
Mar. 22	(9:30 a.m.)	: .00081	: .36
Apr. 21	(9:00 a.m.)	: .00084	: .38

UNNAMED TRIBUTARY OF THE SANTA YNEZ RIVER

Location.- Lat. $34^{\circ}34'00''$, long. $119^{\circ}56'00''$, at Highway 150 crossing about 0.4 mile above junction with the Santa Ynez River.

Altitude.- About 700 feet, from topographic map.

Description.- Measuring site in natural stream channel above highway.

Diversion.- Several diversions above.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Oct. 21, 1948	(estimated)	: 0.02	: 11
Nov. 5	(8:15 a.m.)	: .023	: 10
Nov. 18	(1:03 p.m.)	: .019	: 8.5
Nov. 30	(estimated)	: .031	: 14
Dec. 15	(10:30 a.m.)	: .029	: 13
Jan. 31, 1949	(10:00 a.m.)	: .034	: 15
Feb. 3	(12:45 p.m.)	: .030	: 14
Mar. 18	(11:30 a.m.)	: .026	: 12
Apr. 19	(1:30 p.m.)	: .017	: 7.6

TEQUEPIS CREEK ABOVE BOY SCOUT CAMP DIVERSION

Location.- Lat. $34^{\circ}32'20''$, long. $119^{\circ}57'30''$, at Boy Scout Camp diversion, about 2.4 miles south of Highway 150.

Altitude.- About 1,900 feet, from topographic map.

Description.- Measuring site above wood diversion box at rock outcrop about 2.9 miles by road and trail above Highway 150.

Diversion.- None reported above station.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
June 24, 1948	(estimated)	: 0.03 to .04	: 15 to 20
Oct. 29	(9:05 a.m.)	: 0.039	: 18
Nov. 18	(12:05 p.m.)	: .041	: 18
Dec. 15	(9:25 a.m.)	: .037	: 17
Jan. 31, 1949	(9:10 a.m.)	: .056	: 25
Mar. 18	(9:15 a.m.)	: .14	: 63
Apr. 20	(8:40 a.m.)	: .083	: 37
		:	:
		:	:

SPRING - F. F. LEADBETTER

Location.- Lat. $34^{\circ}33'00''$, long. $119^{\circ}57'40''$,

Altitude.- About 1,530 feet, from topographic map.

Description.- Flank-curbed pool in landslide on shale. Discharge measured as inflow to settling box.

DATE		DISCHARGE	
		: Second- feet	: Gals. per min.
June 23, 1948		: 0.0047	: 2.1
Feb. 3, 1949	(10:05 a.m.)	: .0036	: 1.6
Mar. 18	(10:20 a.m.)	: .0057	: 2.6
Apr. 20	(10:00 a.m.)	: .0053	: 2.4
		:	:

SPRING - H. NOEL, U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}33'10''$, long. $119^{\circ}57'40''$

Altitude.- About 1,550 feet, from topographic map.

Description.- Concreted seep in alluvium. Discharge measured at end of pipe line to storage reservoir.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
June 23, 1948	: 0.0107	: 4.8
Feb. 3, 1949 (10:40 a.m.)	: .0082	: 3.7
Mar. 18 (10:35 a.m.)	: .0085	: 3.8
Apr. 20 (10:10 a.m.)	: .0084	: 3.8
	:	:
	:	:
	:	:

SPRING - MRS. W. A. CLARK, U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}33'10''$, long. $119^{\circ}57'30''$

Altitude.- About 1,250 feet, from topographic map.

Description.- Seeps into ditch on hillside. Discharge measured at end of 6-inch tile pipe into settling box.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Feb. 3, 1949	(11:20 a.m.)	: 0.0014	: 0.63
Mar. 18	(10:45 a.m.)	: .0033	: 1.5
Apr. 20	(10:30 a.m.)	: .0060	: 2.7
	:	:	:
	:	:	:
	:	:	:

TEJUEPIS CANYON CREEK AT HIGHWAY 150

Location.- Lat. $34^{\circ}34'20''$, long. $119^{\circ}57'00''$, at road crossing of Highway 150

Altitude.- About 750 feet, from topographic map.

Description.- Measuring site in stream channel above bridge.

Diversions.- Several above.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Mar. 18, 1949	(11:20 a.m.):	No flow	No flow
Apr. 19	(1:00 p.m.):	No flow	No flow
	:	:	:
	:	:	:
	:	:	:

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}33'50''$, long. $119^{\circ}58'20''$

Altitude.- About 1,070 feet, from topographic map.

Description.- Pool in sandstone bed of side canyon.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948 (estimated	: 0.001	: 0.5
Jan. 26, 1949 (11:45 a.m.)	: .0010	: .47
Mar. 21 (1:20 p.m.)	: .0022	: 1.0
Apr. 21 (1:00 p.m.)	: .0020	: .91
	:	:

SPRING - CROWN ELEVEN RANCH

Location.- Lat. $34^{\circ}34'00''$, long. $119^{\circ}58'10''$

Altitude.- About 990 feet, from topographic map.

Description.- Two connected curbed seeps on alluvial slope. Discharge at outlet of 1-inch pipe leading to watering trough.

DATE	DISCH. RATE	
	: Second-feet	: Gals. per min.
Oct. 21, 1948	: 0.0023	: 1.0
Jan. 26, 1949 (11:20 a.m.)	: .0019	: .86
Mar. 21 (2:00 p.m.)	: .0017	: .75
Apr. 21 (1:35 p.m.)	: .0012	: .52
	:	:

SPRING - CROWN ELEVEN RANCH

Location.- Lat. $34^{\circ}33'50''$, long. $119^{\circ}58'10''$

Altitude.- About 970 feet, from topographic map.

Description.- Seepage from alluvial fill collected in ditch on east bank of creek. Discharge measured at end of old 4-inch pipe line.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948	: 0.0016	: 0.73
Jan. 26, 1949 (12:10 p.m.)	: .0014	: .62
Mar. 21 (1:00 p.m.)	: .0032	: 1.4
Apr. 21 (1:15 p.m.)	: .0026	: 1.2
	:	:

UNNAMED CREEK, TRIBUTARY TO SANTA YNEZ RIVER AT HARVEY RANCH

Location.- Lat. $34^{\circ}34'00''$, long. $119^{\circ}58'10''$, at 6-foot road culvert about 1.0 mile south of Highway 150.

Altitude.- About 950 feet, from topographic map.

Description.- Measuring site in natural channel.

Diversions.- Several diversions above from springs.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 22, 1948	: 0.0058	: 2.6
Jan. 26, 1949 (12:40 p.m.)	: .016	: 7.2
Mar. 21 (3:00 p.m.)	: .030	: 13
Apr. 21 (2:00 p.m.)	: .030	: 13
	:	:

SPRING - UNNAMED TRIBUTARY TO SANTA YNEZ RIVER AT HIGHWAY 150.

Location.- Lat. $34^{\circ}34'50''$, $119^{\circ}58'20''$, at road crossing of Highway 150 and about 200 yards west of Ohio Oil Company Road.

Altitude.- About 680 feet, from topographic map.

Description.- Measuring site is in natural stream channel just above highway culvert on the San Lucas Ranch, Mr. Crawford, owner.

Diversions.- No known diversions above station.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Nov. 18, 1948	(9:10 a.m.)	: No flow	: No flow
Jan. 31, 1949	(8:10 a.m.)	: 0.068	: 31
Mar. 8	(1:10 p.m.)	: .020	: 9.0
Apr. 19	(12:15 p.m.)	: .012	: 5.4
		:	:

HILTON CANYON CREEK

Location.- Lat. $34^{\circ}32'20''$, long. $119^{\circ}58'40''$, about 3.2 miles south of Highway 150 near oil well.

Altitude.- About 2,300 feet, from topographic map.

Description.- Measuring site in natural stream channel on San Lucas Ranch.

Diversion.- No known diversions above station.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Nov. 18, 1948	(10:30 a.m.)	No flow	No flow
Dec. 15	(8:15 a.m.)	No flow	No flow
Mar. 21, 1949	(10:50 a.m.)	0.00011	0.048
Apr. 20	(2:15 p.m.)	No flow	No flow
		:	:

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}32'50''$, long. $119^{\circ}50'50''$

Altitude.- About 1,930 feet, from topographic map.

Description.- Seeps in creek bed a short distance above diversion dam. Discharge at outlet of 2-inch pipe, 0.25 mile north at reservoir.

DATE		DISCHARGE	
		: Second-feet	: Gals per min.
Oct. 25, 1948		: 0.10	: 4.6
Jan. 26, 1949	(10:00 a.m.)	: .085	: 38
Mar. 21	(11:00 a.m.)	: .11	: 50
Apr. 20	(1:30 p.m.)	: .068	: 31
		:	:
		:	:

HILTON CANYON CREEK AT HIGHWAY 150

Location.- Lat. $34^{\circ}35'10''$, long. $119^{\circ}59'10''$, at Highway 150.

Altitude.- About 650 feet, from topographic map.

Description.- Measuring site in natural stream channel above highway crossing.

Diversion.- Several diversions above station.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Mar. 8, 1949	(1:30 p.m.)	: No flow	: No flow
Mar. 21	(12-noon)	: No flow	: No flow
Apr. 19	(12-noon)	: No flow	: No flow
		:	:
		:	:

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}34'40''$, long. $119^{\circ}59'20''$

Altitude.- About 980 feet, from topographic map.

Description.- Wood-curbed seep on hillside. Discharge measured at end of 2-inch line to stock trough.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 28, 1948	: 0.000067	: 0.03
Jan. 26, 1949 (2:00 p.m.)	: .00013	: .058
Mar. 8 (12:40 p.m.)	: .00013	: .057
Apr. 19 (11:40 a.m.)	: .00013	: .057
	:	:

WON'S CREEK AT G. WALSKA FISH POND

Location.- Lat. $34^{\circ}32'20''$, long. $120^{\circ}00'30''$, at G. Walska Fish pond about 0.8 mile northeast of El Capitan Lodge.

Altitude.-About 2,200 feet, from topographic map.

Description.- The measuring site is at overflow pipe from fish pond in natural stream channel reached by about 2 miles of private mountain road from El Capitan Lodge.

Diversion.- No known diversions above.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Jan. 27, 1949	(11:50 a.m.)	0.057	26
Mar. 28	(12:45 p.m.)	.098	44
	:	:	:
	:	:	:

STATION 144

SPRING - MADAME GANNA WALSKA

Location.- Lat. $34^{\circ}32'10''$, long. $120^{\circ}00'50''$

Altitude.- About 2,650 feet, from topographic map.

Description.- Seeps on side of canyon impounded by small dam across the creek.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 7, 1948	: 0.0062	: 2.8
Jan. 27, 1949 (10:55 a.m.)	: .0088	: 3.9
Mar. 28 (12:20 a.m.)	: .024	: 10.8
	:	:
	:	:

WONS CREEK AT HIGHWAY 150

Location.- Lat. $34^{\circ}35'00''$, long. $120^{\circ}00'40''$, at Highway 150.

Altitude.- About 580 feet, from topographic map.

Description.- Measuring site in natural stream channel above highway crossing.

Diversion.- Several diversions above at Ganna Walska's El Capitan Lodge.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
:	:	:
:	:	:
:	:	:
:	:	:
:	:	:

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}33'30''$, long. $120^{\circ}01'10''$

Altitude.- About 1,700 feet, from topographic map.

Description.- Seepage into uncurbed pool near bottom of small valley in hillside.

DATE	DISCHARGE	
	: Second-feet :	Gals. per min.
Oct. 25, 1948	: No flow :	No flow
Jan. 26, 1949 (5:30 p.m.)	: 0.00018 :	0.082
Mar. 8 (10:20 a.m.)	: .00029 :	.128
Apr. 19 (9:15 a.m.)	: .00043 :	.19

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}33'20''$, long. $120^{\circ}01'20''$

Altitude.- About 1,750 feet, from topographic map.

Description.- Seepage into uncarved pool on hillside.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Oct. 2, 1948	(estimated)	0.0007	1/3
Jan. 26, 1949	(5:20 p.m.)	.0011	0.48
Mar. 8	(10:30 a.m.)	.0011	.48
Apr. 19	(9:30 a.m.)	.0011	.50
		:	:

STATION 148

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}35'20''$, long. $120^{\circ}01'30''$

Altitude.- About 1,700 feet, from topographic map.

Description.- Seepage into uncurbed pool from alluvium on hillside.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Oct. 25, 1948 (estimated)	: 0.0004	: 1/6
Jan. 26, 1949 (5:10 p.m.)	: .00060	: 0.27
Mar. 8 (10:40 a.m.)	: .00063	: .28
Apr. 19 (9:45 a.m.)	: .00028	: .12
	:	:

SPRING - J. V. CRAWFORD

Location.- Lat. $34^{\circ}33'40''$, long. $120^{\circ}01'40''$

Altitude.- About 1,150 feet, from topographic map.

Description.- Wood-curbed spring in side canyon near bottom of 8-foot natural falls. Discharge measured at end of 3/4-inch pipe leading to circular concrete stock trough.

DATE	DISCHARGE	
	: Second-feet :	Gals. per min.
Oct. 25, 1948	: 0.00027 :	0.12
Jan. 26, 1949 (4:50 p.m.)	: .00095 :	.43
Mar. 8 (9:10 a.m.)	: .0015 :	.68
Apr. 19 (8:45 a.m.)	: .0012 :	.56
	:	:

SAN LUCAS CREEK BELOW SPRING #149

Location.- Lat. $34^{\circ}33'50''$, long. $120^{\circ}01'40''$, at wood cribbed spring No. 149 about 1.7 miles south of Highway 150.

Altitude.- About 1,100 feet, from topographic map.

Description.- Measuring site in natural stream channel below spring #149.

Diversion.- Spring #149 diversion above for stock.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Apr. 19, 1949 (9:00 a.m.)	: No flow	: No flow
	:	:
	:	:
	:	:

SPRING - RANCHO JUAN Y LOLITA

Location.- Lat. $34^{\circ}34'10''$, long. $120^{\circ}03'10''$

Altitude.- About 1,150 feet, from topographic map.

Description.- Wood-curbed pool on hillside. Discharge measured at first pipe union below spring.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Dec. 3, 1948	: Not meas.	: Not meas.
Feb. 1, 1949	: 0.0056	: 2.50
Apr. 8 (8:30 a.m.)	: .0059	: 2.7
	:	:
	:	:

EAST FORK, LOLITA CREEK

Location.-Lat. $34^{\circ}33'20''$, long. $120^{\circ}03'20''$, about 1.3 miles east of Refugio Pass Road.

Altitude.- About 950 feet, from topographic map.

Description.- Measuring site at outcrop in natural stream channel, reached by private road on the Juan Y. Lolita Ranch.

Diversions.- No known diversions.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
	:	:
	:	:
	:	:
	:	:
	:	:

SPRING - RANCH JUAN Y LOLITA

Location.- Lat. $34^{\circ}33'30''$, long. $120^{\circ}03'30''$

Altitude.- About 1,150 feet, from topographic map.

Description.- Deep in small side canyon. Stock drink from pools.

DATE	DISCHARGE	
	: Second-feet :	Gals. per min.
Feb. 1, 1949	: 0.00080 :	0.36
Apr. 8 (11:45 a.m.)	: .00047 :	.21
	: :	
	: :	

STATION 154

SPRING - RANCHO JUAN Y LOLITA

Location.- Lat. $34^{\circ}33'40''$, long. $120^{\circ}04'20''$

Altitude.- About 1,100 feet, from topographic map.

Description.- Old wood-curbed seep in bottom of valley. Discharge measured in boggy area downstream.

DATE	DISCHARGE	
	: Second-feet :	Gals. per min.
Nov. 10, 1948 (estimated)	: 0.0007 :	1/3
Feb. 1, 1949	: .00060 :	0.27
Apr. 8 (10:45 a.m.)	: .00059 :	.27
	:	:
	:	:

SPRING - U. S. FOREST SERVICE

Location.- Lat. $34^{\circ}32'10''$, long. $120^{\circ}03'50''$

Altitude.- About 2,040 feet, from topographic map.

Description.- Concrete-curbed spring, 7 feet deep. Discharge measured at road crossing, 170 feet downstream.

DATE	DISCHARGE	
	: Second-feet	: Gals. per min.
Jan. 27, 1949 (4:35 p.m.)	: 0.023	: 10.4
Mar. 28 (2:30 p.m.)	: .052	: 23
	:	:
	:	:
	:	:

WEST FORK JUIOTA CREEK

Location.- Lat. $34^{\circ}33'10''$, long. $120^{\circ}04'20''$, about 0.3 mile east of Refugio Pass Road.

Altitude.- About 800 feet, from topographic map.

Description.- Measuring site in natural creek channel at road crossing on Juan Y Lolita Ranch.

Diversion.- No known diversions above station. An upper stream diversion for the former C. C. C. Camp has been abandoned.

DATE		DISCHARGE	
		: Second-feet	: Gals. per min.
Feb. 1, 1949	(3:15 p.m.)	: 0.076	: 34
Apr. 8	(11:15 a.m.)	: .16	: 70
		:	:
		:	:
		:	:

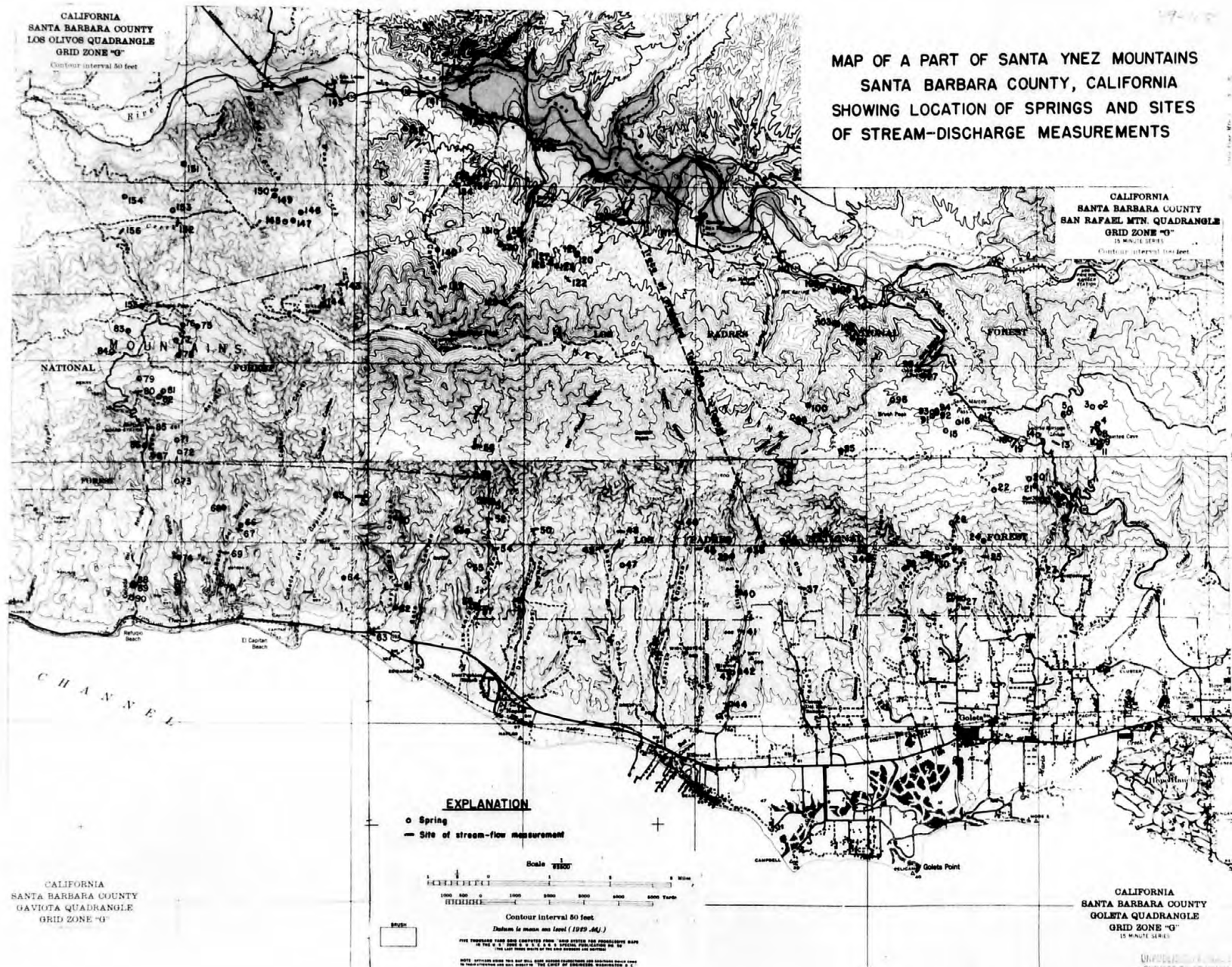
CALIFORNIA
SANTA BARBARA COUNTY
LOS OLIVOS QUADRANGLE
GRID ZONE "G"

Contour interval 50 feet

MAP OF A PART OF SANTA YNEZ MOUNTAINS
SANTA BARBARA COUNTY, CALIFORNIA
SHOWING LOCATION OF SPRINGS AND SITES
OF STREAM-DISCHARGE MEASUREMENTS

CALIFORNIA
SANTA BARBARA COUNTY
SAN RAFAEL MTN. QUADRANGLE
GRID ZONE "G"

Contour interval 50 feet



EXPLANATION

- o Spring
- Site of stream-flow measurement

Scale 1:50,000



Contour interval 50 feet

Datum is mean sea level (1929 AD.)

NOTE: THIS MAP WAS COMPILED FROM THE BEST AVAILABLE SOURCE MATERIAL AND IS NOT A REPRODUCTION OF THE ORIGINAL. IT IS THE PROPERTY OF THE U.S. GEOLOGICAL SURVEY AND IS LOANED TO YOU BY THE U.S. GEOLOGICAL SURVEY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE U.S. GEOLOGICAL SURVEY.

CALIFORNIA
SANTA BARBARA COUNTY
GAVIOTA QUADRANGLE
GRID ZONE "G"

CALIFORNIA
SANTA BARBARA COUNTY
GOLETA QUADRANGLE
GRID ZONE "G"

UNPUBLISHED MAP
SUBJECT TO REVISION

Table 1.- Springs in a part of Santa Ynez Mountains (Painted Cave Area to Refugio Pass)
Santa Barbara County, California, June 1948 through February 1949

47-118

No.	Owner	Occurrence	Altitude ft.	Associated geologic formation	Temperature (°F.)	Partial chemical analyses (ppm)			Use	Dis- charge (gpm)	Date	Remarks
						Chloride (Cl)	Soap hardness as (CaCO ₃)	Specific conductance (25°C & 250°C)				
2	Etienne Lejeune	Unearthed pool at foot of boulders at falls in creek bed	2,700	-	52	-	-	-	Dom., Irr.	2.5	Feb. 8, 1949	Discharge measured at outlet of pool. Discharge at diversion about 500 ft. downstream was about 4.5 gpm.
3	Etienne Lejeune	Seeps in stream channel impounded by small concrete dam	2,650		45	-	-	-	Dom., Irr.	0.65	Feb. 8, 1949	Discharge measured above upper diversion dam.
4	Painted Cave Mutual water Company	Cemented pool on sandstone ledge in creek bed	2,590	Coldwater sandstone	59	35	200	71.6	Dom. (Supplies about 30 families.)	4-5 2.35 4.3	June 19, 1948 Oct. 26, 1948 Feb. 9, 1949	June 19 and Oct. 26 discharge obtained from rate of filling spring box after pumping. Feb. 9, discharge is flow of spring 30 ft. above lower dam.
5	A. C. Postal	Cemented pool in alluvium on creek bed	2,710	Seeps formation	56	46	240	79.1	Dom.	- -	June 19, 1948 Feb. 9, 1949	No surface discharge; spring not in use.
6	do.	do.	2,690	do.	54	35	205	71.0	Dom.	-	do.	Not able to measure discharge. Large concrete spring box used for storage.
7	E. T. Ogras	Uncontrolled seepage from fractures in sandstone ledge on valley side.	2,565	Coldwater sandstone	58	24	170	64.3	-	60.5 6.0	June 19, 1948 Feb. 9, 1949	Feb. 9, discharge measured at end of 3-inch pipe.
8	do.	Stone curbed seep, at foot of bluff east side of creek	2,550	do.	54	-	-	-	Dom.	-	Feb. 8, 1949	Stone curbing cracked, water seeping out; unable to measure.
9	San Nikola	Seeps in lendalide on valley side.	2,360	do.	56	31	175	72.6	Dom.	- 2.5 7.6	June 19, 1948 Oct. 26, 1948 Feb. 9, 1949	Discharge at end tile pipe to concrete settling box.
10	do.	Two concrete curbed seeps on hillside 8 ft. apart.	2,300	do.	-	-	-	-	Not used at present time.	60.27 60.32 60.41 60.81	Oct. 26, 1948 do. Feb. 9, 1949 do.	Discharge of both springs measured at end of overflow pipes.

¹/ Interpolated from topographic map.

²/ Estimated.

³/ Northern spring.

⁴/ Southern spring.

Unpublished records,
subject to revision.

Table 1.- Continued.

No.	Owner	Occurrence	Altitude ft.	Formation	(%) (Cl.)	Hard- ness	Spec. const.	Use	Dis- charge (gpm)	Date	Remarks
13	San Nukole	Seep in alluvium on valley side	2,300	Coldwater sandstone	62	32	208	Dom., bottling	2.14 0.3 Feb. 10, 1949	June 19, 1948 Feb. 10, 1949	Discharge at overflow from bottling plant.
14	County of Santa Barbara Pfeiffer Glen Park	Bricked pool on sandstone ledge in creek bottom	1,720	do.	59	29	238	Picnic grounds	0.7 1.3	July 19, 1948 Feb. 10, 1949	Discharge at inflow to storage tank. Some flow over earth collecting dam but measured and included in dis- charge.
15	U. S. Forest Service, Kinross Filing	Stone-curbed pool in alluvium on hillside	2,300	do.	60	19	188	Dom., stock, irr.	1.0 1.2	June 18, 1948 Feb. 10, 1949	Discharge at inflow to storage tank.
16	Tom Kiser	Dug pit in alluvial wash below sandstone ledge	2,230	do.	59	17	160	do.	3.3 3.4	June 18, 1948 Feb. 10, 1949	Discharge at pipe line to storage tank.
17	Fred J. Vandever and John Fredericks	Stone-curbed pool in alluvium on hillside	2,130	do.	58	14	47.5	Dom.	-	June 11, 1948	Slight seep through overflow pipe.
18	G. E. Holmes, Jr., et al.	Seeps in alluvium along creek bed; one boxed in cement box.	1,906	do.	61	23	175	Dom.	4.8 5.0	July 30, 1948 Feb. 10, 1949	Discharge at takeoff from pipe line below cement box.
20	San Marcos Trout Club Association	Wood-curbed seep in alluvium of creek bottom	1,700	do.	59	23	138	Dom., irr.	1.5 1.6	July 30, 1948 Feb. 10, 1949	Discharge at inflow from 3/4 inch pipe line to settling box above orifices 1, 2, 3 of spring 21.
21	do.	Four wood-curbed seeps in alluvial wash on hillside	1,480	do.	60	25	146	do.	3.2 4.2	July 30, 1948 Feb. 10, 1949	Discharge at inflow to storage tank less discharge at spring 20.
22	Rishi Singh Greywall	Cemented pool on sandstone in creek bed; water from fractures	1,700	do.	61	24	180	Dom.	2.9 3.4	June 17, 1948 Feb. 10, 1949	Discharge at overflow from storage tank. Reported discharge 2 gpm. Aug.-Sept. 1947.
24	Golden West Estates	Open pools in alluvium of creek bed	560	Seeps formation	64	29	120	Dom., Stock, irr.	-	Aug. 18, 1948 Feb. 17, 1949	Aug. 18, slight seepage; probably less than 1 gpm; Feb. 17, dry.
26	A. Armando	Cave in sandstone beds	470	do.	-	-	-	Stock	-	Oct. 18, 1948 Feb. 23, 1949	Oct. 18, no surface discharge. Feb. 23, bare drip into sheep trough.
27	do.	Tunnel in hillside in sandstone, beds nearly vertical	400	do.	61	61	850	Do.	a. Less than 1 0.1	Oct. 18, 1948 Feb. 23, 1949	Discharge at north of tunnel.
28	Sawyer Estate	Open pit in alluvial wash on hillside	800	do. (?)	-	-	-	Irr.	dry	Oct. 19, 1948 Feb. 23, 1949	No surface discharge, reported not to have gone dry before for many years.

a. Estimated.

Unpublished records,
subject to revision.

No.	Owner	Occurrence	Altitude feet ±	Formation	(%) (Cl.)	Depth feet	Sp. concn.	Use	Discharge cfs	Date	Remarks
31	Mrs. K. C. Canstey & Mrs. E. O. Samson	Several seeps in landslide on valley wall	525	Seape formation	68	21	180	64.4 Irr.	a 25-35 c 10-20 23	July 23, 1948 Oct. 19, 1948 Feb. 23, 1949	July 23, and Oct. 19, discharge at mouth of spring deposits. Feb. 23, discharge at 2-inch valve in pipe line.
32	do.	Open pools in alluvium one curbed with stone, on valley bottom.	560	do.	64	28	15	72.1 Dom.	a 1 -	July 23, 1948 Feb. 23, 1949	Discharge at end of pipeline to storage tank.
34	T. B. Bishop Company	Seeps from rock fractures and alluvium along creek bottom above concrete dam.	560	do.	62	29	238	91.9 Irr.	-	July 28, 1948 Feb. 19, 1949	Unable to measure discharge as spring flow cannot be separated from creek flow.
35	do.	Seeps in alluvium on creek bottom.	600	Coldwater sandstone	61	18	170	80.9 Stock, Irr.	24 30	July 29, 1948 Feb. 18, 1949	July 29, flow measured about 60 cfs above diversion dam for 3-inch pipeline. Feb. 18, flow measured 10 cfs above dam.
36	Olaf Howe	Seeps in alluvium along creek beds; concentrated by dam across creek.	600	do. (?)	61	29	238	Dom., Irr., stock.	1.7 12.7 5.1	July 22, 1948 Oct. 15, 1948 Feb. 17, 1949	Discharge at inflow reservoir from settling box.
38	Hilwood Dairies	Pools on sandstone ledges across creek bed.	530	Seape formation	-	-	-	Not used	-	Aug. 17, 1948	No surface discharge except evapo-transpiration.
39	do.	do.	470	do.	-	28	725	177 Not used now.	0.0 4.1	Aug. 16, 1948 Feb. 17, 1949	Flow measured just above diver- sion dam for old 2-inch pipeline.
40	do.	Wood-curbed seep in alluvium of creek bottom.	530	Vaqueros sandstone	58	38	550	128 Dom., Stock, Irr.	1.2 3.4	Aug. 16, 1948 Feb. 17, 1949	Discharge at inflow to settling box.
42	do.	Tumbledrift drift in sandstone bed on hillside.	225	Seape formation (?)	60	153	375	139 Stock	0.9	Aug. 17, 1948	Discharge at outlet faucet by watering trough.
43	do.	Former seep in alluvium of valley floor	180	Alluvium	-	-	-	Not used	-	Aug. 18, 1948 Feb. 17, 1949	Area dry; no surface discharge ex- cept evapo-transpiration.
44	do.	Open excavated pool in landslide on valley side	150	Hinon shale	64	21.0	2,400	519 Stock	-	Aug. 18, 1948 Feb. 17, 1949	Aug. 18, no surface discharge ex- cept by evapo-transpiration. Feb. 17, just bare seep from 3/4- inch line 85 ft. down hill from spring.
47	L. G. Drayfus Estate	Two concrete-curbed seeps at foot of hills	580	-	-	-	-	Stock	0.13	Jan. 17, 1949	Discharge measured at settling box.
51	W. H. Woods	Seepage intercepted by 348 foot tunnel in mountain side.	780	-	58	-	-	Dom., Stock, Irr.	1.60	Nov. 18, 1948	Discharge at end of pipeline to reservoir.
51A	do.	Seepage into narrow canyon on mountain side above tunnel	600	-	-	-	-	Dom., Stock, Irr.	.06	do.	Discharge at end of 1" pipe near mouth of canyon; subject to revision.
a. Estimated. b. In part estimated.											

Table 1.- Continued.

No.	Owner	Occurrence	Altitude Feet	Formation	(%)	(Cl.)	Hard- ness	Spec. cond.	Use	Dis- charge (gpm)	Date	Remarks
53	W. H. Woods	Unsurbed seep in narrow valley on hillside.	550	-	-	-	-	-	Stock	-	Nov. 18, 1948	Dry.
55	W. L. Rutherford	Large concrete spring box in creek bed	620	-	56	-	-	-	Not used	-	do.	Water in spring box and pool of water downstream, no surface flow from either.
56	Russell E. Doty	Tunnel driven 30 ft. into hillside.	270	-	-	36	350	79.5	Dom.	-	Dec. 13, 1948 Jan. 19, 1949	No measurement at time of visit. Large concrete spring used for storing water.
60	Gila Land Company	Unsurbed seeps in small valley, west side Las Vegas Creek.	400	-	51	57	320	86.1	Not used.	.15	Nov. 23, 1948	Discharge estimated.
62	Edwards Estate	Wood-curbed spring box, 8 ft. by 12 ft., east side of Las Vegas Creek, at foot sandstone bluff.	130	-	54	19	340	79.0	Dom., stock	2.2	do.	Discharge measured ¹⁵ 1-3/4 inch overflow pipe from spring box.
64	Gila Land Company	Seepage into creek bed.	230	Reinon shale ² / ₁	45	211	2,050	402	Not used.	Very small 0.98	Nov. 24, 1948 Jan. 18, 1949	Discharge consumed by evapo-transpiration in immediate area.
66	George M. Williams Estate.	Seepage at foot of sandstone cliff.	300	Vaqueros sandstone ² / ₁	-	17	325	47.3	Dom.	2/3 1.4	Nov. 16, 1948 Jan. 19, 1949	Nov. 16., flow into tank 0.163 gpm estimate ² / ₃ gpm not collected by spring box. Jan. 19, only flow into tank measured.
68	do.	Flow from narrow canyon in sandstone.	350	do. (?)	53	25	425	67.6	Stock	4.0	Nov. 16, 1948	Flow measured at outlet of natural pool on sandstone.
70	Covarrubias Estate	Seepage into creek above diversion dam.	100	Monterey shale ² / ₁	-	105	1,000	238	Dom.	2/8	do.	Measured at sandbox about 120 ft. downstream from diversion dam.
71	U. S. Forest Service	Pool at foot of 5-foot drop in creek bed. Seepage also into creek bed for 50 ft. downstream.	600	Alegria formation of Dibblee ² / ₁	57	-	-	-	Stock	1/3 1.00	Nov. 17, 1948 Jan. 21, 1949	Nov. 17, discharge roughly measured at south side of wire fence enclosure.
72	do.	Pool in hole on hillside, about 200 ft. east of creek.	550	Seeps formation ² / ₁	-	-	-	-	Stock	- 40/52	Nov. 17, 1948 Jan. 21, 1949	Nov. 17, no surface discharge except evapo-transpiration.
73	Erro Estate	Pool in creek bottom on sandstone beds.	450	Seeps formation or Vaqueros sandstone ² / ₁	-	-	-	-	Not used	Very small 0.62	Nov. 17, 1948 Jan. 21, 1949	Nov. 17, no visible flow. Pools of water in creek bed for 200 ft. downstream.
74	George M. Williams Estate	Seepage into unsurbed pool in narrow valley on hillside.	300	Reinon shale ² / ₁	-	-	-	-	Stock	- 0.13	Nov. 17, 1948 Jan. 21, 1949	No surface discharge, 11-17-48.
75	D. A. Sattler	Stone-curbed seep, wood curbed seep, and minor unsurbed seeps in alluvium of steep canyon bottom.	2,230	Coldwater sandstone	62	23	285	86	Dom., Stock Irr.	4.6 4.6	Aug. 27, 1948 Dec. 4, 1948	Discharge of curbed seeps at overflow from settling box. Discharge of unsurbed seeps estimated additional ² / ₃ gpm.

²/₁ From geologic map by T. W. Dibblee, Jr.Unpublished records,
subject to revision.

Table 1.- Continued.

No.	Owner	Occurrence	Elevation ft.	Formation	(%)	(Cl.)	Hard- ness	Spec. cond.	Use	Discharge (gpm)	Date	Remarks
76	D. A. Battler	Wood-curbed seep in alluvium on hillside.	2,270	Coldwater sandstone	64	21	200	55	Dom., Stock, Irr.	0.18 0.19	Aug. 27, 1948 Dec. 17, 1948	Discharge at end of 1-inch pipe leading to tank.
77	Farmin De Ponce	Stone-curbed wall, 9 ft. deep, near bottom of canyon.	1,900	Coldwater sandstone 2/ (Sicate formation of Dibbles)	-	-	-	-	Dom.	-	Nov. 16, 1948 Jan. 27, 1949	No surface discharge. Water level below top of wall cover 11-15-49; 4.41 ft.; 1-27-49, 4.01 ft.
78	Mrs. Florence Brown	Stone-curbed pool west side of creek.	1,800	do.	58	-	-	-	Dom., Irr., Stock.	0.38 0.51	Nov. 6, 1948 Jan. 21, 1949	Discharge at end of 3/4-inch line about 2,000 feet southeast of spring.
79	Saralegui Estate	Spring rises through weathered shale on hillside.	1,300	do.	67	23	400	87.4	do.	8 to 10 8.6	Nov. 6, 1948 Jan. 25, 1949	Hydrogen sulphide odor. Supplies part flow Refugio Creek.
81	Mrs. Florence Brown	Two and 1 short tunnels dug in sandstone cliff about 66 feet above creek bed.	1,350	do.	62	21	428	78.3	do.	1.95 8	Nov. 16, 1948 Jan. 21, 1949	Most of discharge of northerly spring wasted.
82	do.	Drilled hole in sandstone cliff, 28 feet above creek.	1,200	do.	66	30	428	83.6	Dom.	1.17 2.08	Nov. 3, 1948 Jan. 21, 1949	Discharge measured at end of 1/2-inch line.
83	John Gandolfo	Stone-curbed wall, 15 feet deep.	2,250	do.	-	-	-	-	Dom., Irr.	-	Nov. 9, 1948 Jan. 25, 1949	No water in wall.
84	William Polis	Seepage into hole dug in hillside.	2,000	do.	56	18	200	36.6	Not used.	-	Dec. 2, 1948	Discharge is slight seepage consumed by vegetation within 160 ft. downstream from spring.
86	C. Del Pozzo & Alegria Estate	Seepage at foot of sandstone cliff.	420	Alegria formation of Dibbles 2/	62	-	-	-	Not used.	0.62 0.77 1.64	Nov. 3, 1948 Dec. 2, 1948 Jan. 21, 1949	Discharge at east side of culvert under road.
87	John Alegria	Drilled hole in sandstone cliff.	480	Seeps formation (r) 2/	66	30	775	75	Dom., Stock, Irr.	1.09	Jan. 25, 1949	Discharge measured by disconnecting union in pipe line near spring.
88	M. F. Erro	Unburied seep at foot of bluff west side Refugio Creek.	100	Monterey shale 2/	66	149	1,000	217	Stock	0.67 0.90	Dec. 2, 1948 Jan. 21, 1949	Discharge at end of 2-inch pipe to stock trough.
89	do.	Seepage collected in shallow ditch at foot of bluff west side Refugio Creek.	100	do.	54	191	1,150	232	do.	0.30	Dec. 2, 1948	Discharge at end of 2-inch pipe to stock trough.
90	do.	Wood-curbed spring at foot of bluff.	70	do.	66	191	1,250	254	do.	4.55 4.7	Dec. 7, 1948 Jan. 21, 1949	Total discharge into two stock troughs.

2/ From geologic map by E. W. Dibbles, Jr.

2/ From geologic map by E. W. Dibbles, Jr.

Unpublished records,
subject to revision.

Table 1.- Continued.

No.	Owner	Occurrence	Altitude ¹ / _{ft.}	Formation	(SP.)	(CL.)	Hard- ness	Spec. cond.	Use	Dis- charge gpm.	Date	Remarks
91	Tom Kinevan	Open pool in alluvial veneer on sandstone.	2,330	Coldwater sandstone	-	-	-	-	Irr.	-	June 15, 1948	No surface discharge except by evapo-transpiration.
92	Mrs. Nell E. Ream	Seep in alluvial veneer on sandstone.	2,345	do.	-	-	-	-	-	-	do. Feb. 15, 1949	Discharge is slight seepage.
93	do.	Covered pool in alluvium on sandstone in creek bed.	2,350	do.	87	-	-	-	Dom.	3.6 4.0	June 15, 1948 Feb. 15, 1949	Discharge at inflow to settling box.
94	Tom Kinevan	Covered seep in alluvial veneer on sandstone.	2,350	do.	61	16	130	35.6	Dom. Stock	2.1 2.5	June 15, 1948 Feb. 15, 1949	Discharge at inflow to storage tank.
95	U. S. Forest Service, P. C. Bryce filling	Plank-curbed and covered pool in alluvium on sandstone in creek bottom.	2,900	do.	55	10	30	8.6	Dom.	- 2.1	June 17, 1948 Feb. 10, 1949	Discharge is slight seepage; 6-17-48 -
96	Mary Kinevan	Concret-curbed seep in alluvium on hillside.	2,500	do.	-	-	-	-	-	-	Aug. 20, 1948 Feb. 15, 1949	Box dry; no surface discharge.
97	Mrs. Adelaide Ovington	Seeps in landslide on valley side.	1,550	do.	59	16	198	65.0	Dom.	1.1 0.83	June 24, 1948 Feb. 15, 1949	Discharge at settling box, not the full discharge of all seeps; 2-15-49, discharge upper undeveloped seep 3.1 gpm, discharge of lower undeveloped seep 2.0 gpm.
99	U. S. Forest Service; not used	Seeps in alluvium on hillside.	2,475	-	-	-	-	-	Not used.	-	Aug. 19, 1948 Feb. 10, 1949	Area dry; no surface discharge except some evapo-transpiration.
100	U. S. Forest Service, P. C. Bryce filling.	Seeps in alluvium on creek bed, and valley wall.	2,025	-	61	14	320	64	Dom.	-	Aug. 19, 1948 Feb. 10, 1949	Slight seepage; probably less than 1 gpm.
101	Irving Wille	Seep in alluvium on shale.	1,280	Alluvium	468	20	325	114	Dom.	1.9 6.1	June 25, 1948 Feb. 25, 1949	Discharge at inflow to settling box from upper 2-inch line.
102	do.	Seep in alluvium on creek bed.	1,100	-	57	24	310	110	Dom.	6.4	June 25, 1948	Discharge at inflow to settling box from lower pipe.
103	U. S. Forest Service, E. A. Nash-Bouldan filling.	Seeps in alluvium on valley side.	1,100	Coldwater sandstone (7)	59	16	250	74.5	Dom., Stock, Irr.	- 0.8	do. Feb. 16, 1949	Discharge estimated from rate of recovery of water level after it had been bailed below level at outlet pipe; 2-16.
105	A. Dowling	One small spring in debris filled draw and stone-curbed spring in adjacent draw connected together and piped to storage tank.	920	-	-	-	-	-	Dom.	0.5	Mar. 2, 1949	Spring directly behind house. Measurement at end of 1-inch pipe line of storage tank.

¹ Estimated in part.

² At settling box 2,000 feet from spring.

Unpublished records,
subject to revision.

Table 1.- Continued.

49-118

No.	Owner	Occurrence	Altitude ^{1/}	Duration	(Gr.)	(Cl.)	Hardness	Spec. cond.	Use	Discharge	Date	Remarks
106	A. Dowling	Wood-curbed spring box in draw, 4-inch horizontal well and two small seeps connected together and piped to house or storage tank.	1,000	-	-	-	-	-	Dom.	1.4	Mar. 2, 1949	Discharge measured at sunken concrete storage tank below swimming pool.
120	T. M. Storke	Wood-curbed seep in alluvium in creek bed.	1,190	-	58	97	225	137	Dom., Stock	0.0 0.0 0.7	July 20, 1948 Dec. 16, 1948 Feb. 3, 1949	7-20 & 12-16, no surface discharge; water level in box below outlet pipe. 2-3, discharge obtained by bailing water level in spring box below outlet pipe and measuring rate of flow of water level.
121	do.	Two wood-curbed seeps on valley side.	1,188	-	61	36	362	106	Dom., Stock, Irr.	0.66 0.46 0.50	July 20, 1948 Dec. 16, 1948 Feb. 3, 1949	Discharge at inflow to aerator. Water has "sulphur" odor and taste.
122	David Gray, Jr.	Wood-curbed spring in hillside.	1,800	-	53.5	-	-	-	Dom., Stock.	0.42 0.4 to 0.5	Dec. 16, 1948 Feb. 3, 1949	Dec. 16, discharge at end of pipe line to lower circular, wooden tank. Feb. 3, discharge at spring box.
124	T. M. Storke	Three wood-curbed seeps in alluvium capping terrace.	850	Terrace deposits	-	-	-	-	Dom.	0.14 0.18	July 20, 1948 Dec. 16, 1948	Discharge measured at inflow to galvanized corrugated storage tank.
125	do.	Wood-curbed seep in alluvium capping terrace.	850	do.	-	45	160	80.7	Stock	0.056 0.038 0.008	July 20, 1948 Dec. 16, 1948 Feb. 3, 1949	Discharge at inflow to stock tank.
127	David Gray, Jr.	Drilled hole into sandstone exposure.	1,830	-	-	-	-	-	Dom., Stock.	0.11 0.00	Dec. 16, 1948 Feb. 3, 1949	Discharge at end of hose into earth reservoir.
128	Novi Equipment Co.	Seepage in alluvial fill in creek bed.	700	Careaga sand	60	22	210	75.6	Stock	0.114 0.140 0.140 0.140	Oct. 21, 1948 Nov. 20, 1948 Dec. 16, 1948 Feb. 3, 1949	Discharge at natural falls, 155 yards above Highway 180.
130	P. F. Leadbetter	Plank-curbed pool in landslide on shale.	1,830	Upper Cretaceous shale ^{3/}	59	10	120	39.4	Dom.	2.1 1.6	June 23, 1948 Feb. 3, 1949	Discharge at inflow to settling box.
131	U. S. Forest Service, M. Noel filling	Cemented seep in alluvium.	1,850	-	607	17	170	41.2	Dom., Camp Drake	4.8 3.7	June 23, 1948 Feb. 3, 1949	Discharge at end of pipe line at storage tanks.
132	U. S. Forest Service, Mrs. W. A. Clark filling	Seeps into ditch on hillside.	1,280	-	56	-	-	-	Dom., Stock.	0.65	do.	Discharge measured at end of 6" tile pipe into settling box; spring reported dry summer 1948.
134	J. V. Crawford	Pool in sandstone bed of side canyon.	1,070	-	56	28	290	90.1	Stock	2 0.47	Oct. 25, 1948 Jan. 26, 1949	Discharge roughly measured, 10-25.
136	Crown Eleven Ranch	Two connected curbed seeps on alluvial slope.	990	-	61	22	490	112	Dom., Stock	1.02 0.86	Oct. 21, 1948 Jan. 26, 1949	Discharge at outlet of 1-inch pipe leading to watering trough.

^{1/} Noted in part.^{2/} From Geologic map of California, 1938.^{3/} At end of pipe line.

Unpublished records, subject to revision.

Table 1.- Continued.

No.	Owner	Occurrence	Altitude ¹ / ₂	Formation	(%)	(di.)	Hardness	Sp. cond.	Use	Discharge (gpm)	Date	Remarks
136	Crown Sliver Ranch	Seepage from alluvial fill collected in ditch on east bank of creek.	970	-	66	22	460	1.2	Stock	0.73 0.62	Oct. 26, 1948 Jan. 26, 1949	Discharge at end of old 4-inch pipe Hydrogen sulphide odor.
140	J. V. Crawford	Seeps in creek bed a short distance above diversion dam.	1,930	-	56	6.6	270	60.7	Dow., Oil-wall drilling.	4.6 36.4	Oct. 26, 1948 Jan. 26, 1949	Discharge at outlet of 2-inch pipe 0.25 mile north of reservoir.
142	do.	Wood-curbed seep on hillside.	900	-	-	31	1,200	172	Stock	.03 .06	Oct. 26, 1948 Jan. 26, 1949	Discharge at end of 2-inch line to stock trough.
144	Madame Emma Walske	Seeps inside of canyon pounded by small dam across creek.	2,650	Matillija sandstone ² / ₁	48	12	250	55.3	Dow., swimming pool; fire control	02.3/4 4.0	Dec. 7, 1948 Jan. 27, 1949	Dec. 7, measured flow around top edge of dam estimated as 88 percent of total flow.
146	J. V. Crawford	Seepage into uncurbed pool near bottom of small valley in hillside.	1,450	-	-	-	-	-	Stock	- 0.06	Oct. 26, 1948 Jan. 27, 1949	Oct. 26, no surface discharge.
147	do.	Seepage into uncurbed pool on hillside.	1,400	-	61	-	-	-	Stock	1/8 0.46	Oct. 26, 1948 Jan. 27, 1949	Oct. 26, discharge roughly measured.
148	do.	Seepage into uncurbed pool from alluvium on hillside.	1,400	-	61	-	-	-	Stock	1/8 0.27	Oct. 26, 1948 Jan. 27, 1949	Oct. 26, discharge roughly measured.
149	do.	Wood-curbed spring in side canyon near bottom of 8-foot natural fall.	1,180	-	56	57	1,010	179	Stock	0.12 0.43	Oct. 26, 1948 Jan. 27, 1949	Discharge at end of 3/4-inch pipe leading to circular concrete stock trough.
151	Rancho Juan Y Lolita	Wood-curbed pool on hillside.	1,160	Landslide on Monterey shale ² / ₁	62	12	825	166	Dow., Stock	- 2.80	Dec. 3, 1948 Feb. 1, 1949	Discharge measured at first pipe union below spring.
153	do.	Seep in small side canyon.	1,150	-	-	-	-	-	Stock	0.36	Feb. 1, 1949	Stock drink from pools in boggy area.
154	do.	Old wood-curbed seep in bottom of valley.	1,100	Monterey shale ² / ₁	61	24	575	180	Stock	1/2 0.27	Nov. 10, 1948 Feb. 1, 1949	Discharge roughly measured in boggy area downstream.
155	U. S. Forest Service	Concrete-curbed spring, 7 ft. deep	2,040	Goldwater sandstone (Sasate formation of Dibbles)	-	21	250	55.3	Dow., stock	- -	Nov. 12, 1948 Jan. 27, 1949	Water pumped to Refugio Guard Station. Nov. 12, no surface overflow from spring and no flow in creek. Jan. 27, flow in creek at road crossing 170 ft. downstream was 104 gpm.

¹ Estimated in part.
² From geologic map by T. W. Dibbles, Jr.

Unpublished records,
subject to revision.

Table 2.- Miscellaneous discharge measurements of small streams in a part of Santa Ynez Mountains (Printed Cove Area to Refugio Pass)
Santa Barbara County, California, June 1948 through February 1949

47-118

No.	Location	Altitude 1/	Temperature (°F.)	Partial chemical analyses (ppm)				Dis- charge (gpm)	Date	Remarks
				Chloride (Cl)	Sulfate (SO ₄)	Silica (SiO ₂)	Soluble solids (Total) (mg/l. @ 25°C.)			
1	San Antonio Creek at Highway 180.	500	-	-	-	-	-	-	-	All discharge measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, Calif.
12	Maria Ygnacio Creek at old San Marcos Pass Road.	130	-	-	-	-	-	-	-	do.
13	Unnamed creek near Tebe Rock, about 200 yards above Highway 190 at falls.	1,700	59 46	24	312	102	0.4 5.1	July 20, 1948 Feb. 8, 1949	-	-
16	San Jose Creek, east to lowest dam downstream from spring number 16.	1,690	45.5	-	-	-	7 - 8 7.5	July 30, 1948 Feb. 16, 1949	-	Feb. 16, Discharge listed is flow of creek minus discharge of spring No. 16 (5.0 gpm) which overflowed into creek.
18	San Jose Creek, 1 mile above Patterson Bridge.	120	-	-	-	-	-	-	-	All discharge measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, California.
25	West fork of San Jose Creek above reservoir.	400	-	-	-	-	-	-	-	do.
29	San Pedro Canyon about 0.1 mile above Stow diversion above falls at mouth of west fork of creek.	550	- 55	-	-	-	27 47	Oct. 19, 1948 Feb. 25, 1949	-	Very small flow from east fork, the main channel of San Pedro Creek.
30	San Pedro Canyon about 3 miles north of Highway 101, at foot of falls about 200 yards above diversion to Stow Ranch.	400	62	20	120	49.1	20	July 23, 1948	-	-
33	Bartlett Canyon, about 3.5 miles north of Highway 101, and 50 feet upstream from 3-inch diversion line to division box of Bishop & Stow Ranches.	480	-	-	-	-	24	July 28, 1948	-	-
37	Glen Anne Canyon Creek, 3 miles north of Highway 101 at dam site.	330	-	-	-	-	-	-	-	All measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, California.
41	Elwood Canyon, 2.7 miles north of Highway 101 at old concrete diversion dam.	220	-	-	-	-	0.0 0.0	Aug. 17, 1948 Feb. 17, 1949	-	-
45	Winchester Canyon Creek, 2.8 miles north of Highway 101.	550	-	-	-	-	-	-	-	do.
46	Teocote Canyon, 600 yards north of end of canyon road at upper diversion dam for Teocote Ranch.	720	-	-	-	-	0.0	Oct. 15, 1948	-	Estimated flow of 1 to 2 gpm, 600 ft. above upper diversion. Two other diversions for Teocote Ranch 30 and 600 yds. downstream. No flow at lower diversion Oct. 16.

e. Estimated in part.
1/ Interpolated from topographic map.

Unpublished records,
subject to revision.

Table 2.- Continued.

No.	Location	Elevation ft.	(°F.)	(C)	Hard- ness	Spec. cond.	Dis- charge (cfs)	Date	Remarks
48	Eagle Canyon 3.4 miles north of Highway 101, middle branch at diversion dam for Dreyfus Estate.	540	-	-	-	-	dry 3.6	Oct. 18, 1948 Jan. 17, 1949	-
49	Eagle Canyon 3.1 miles north of Highway 101, west branch at diversion dam for Dreyfus Estate.	410	-	52 50	375 425	108 107	dry 0.91	Oct. 18, 1948 Jan. 17, 1949	-
50	Los Puentes Canyon, 2.7 miles north of Highway 101, 180 ft. north of diversion dam at Weir.	480	-	49 17	- 350	- 75.8	104 210	Nov. 2, 1948 Jan. 17, 1949	Discharge measured at V-notch Weir about 60 yards north of diversion. Flood flows of Los Puentes Crk. diverted to 370 a/c capacity reservoir in small canon to east. Los Puentes Ranch has records of flow over eight weirs in 3-mile reach of stream for several months.
52	Las Varas Canyon Creek, 2.5 miles north of Highway 101.	550	-	-	-	-	-	-	All measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, California.
54	Las Varas Canyon, 1.6 miles north of Highway 101 at diversion dam for Russell E. Doty.	400	-	-	-	-	dry dry	Dec. 15, 1948 Jan. 18, 1949	1½-inch pipe line to wooden tank.
57	Las Varas Canyon 0.8 mile north of Highway 101 at diversion dam for Russell E. Doty.	230	48	86	550	143	5.95 6.9	Dec. 13, 1948 Jan. 18, 1949	-
58	Gato Canyon, 3.6 miles north of Highway 101 at diver- sion dam for Edwards Estate.	1,400	-	-	-	-	0	Nov. 22, 1948	Flow in creek estimated at ½ gpm. 150 yards upstream from diversion. Diversion not used at present.
59	Gato Canyon, 3.2 miles north of Highway 101 at diver- sion dam for Edwards Estate.	1,150	-	47 24	- 1,000	- 138	dry 22.2	Nov. 22, 1948 Jan. 18, 1949	Two diversions 40 ft. apart leading to same settling box.
61	Las Vegas Canyon at culvert, 1.0 miles north of Highway 101.	240	-	37	310	75.9	7.8 14.2	Nov. 23, 1948 Jan. 18, 1949	-
63	Las Vegas Canyon at culvert under Highway 101.	40	-	-	-	-	50 70	Nov. 23, 1948 Jan. 18, 1949	Nov. 23, discharge calculated by cross-section area, and float velocity measurements; Jan. 18 by current meter.
65	Canada del Capitan Canyon, 2.6 miles north of Highway 101 at diversion dam for Gila Land Co.	750	-	17	400	87.1	15.8	Nov. 24, 1948	Discharge measured through 2½-inch valve in bottom of pipe line.
67	Canada del Corral Creek, 1.3 miles north of Highway 101.	250	-	-	-	-	-	-	All measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, California.
69	Canada del Corral Creek at forks, 1.1 miles north of Highway 101.	160	-	-	-	-	-	-	do.
80	Canada del Refugio Creek at road crossing on upper middle fork, 4.2 miles north of Highway 101.	300	-	-	-	-	-	-	do.

Unpublished records,
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Table 2.- Continued.

No.	Location	Elevation ft.	(°P.)	(ft)	Hard- ness	Spec. cond.	Dis- charge (cfs)	Date	Remarks
88	Refugio Canyon, 5.3 miles north of Highway 101, first road crossing south of Circle Bar Ranch.	640	-	-	-	-	38 49 80	Dec. 5, 1948 Dec. 7, 1948 Jan. 28, 1949	Diversion dam for John Alegria 0.4 mi. downstream. Diversion dam for G. T. Suberterford 0.3 mi. downstream. Diversion dam for Charles Del Pozzo 0.1 mi. downstream. Diversion dam for Mrs. Florence Brown and Bernard Saralegui 0.4 miles upstream.
98	Cold Spring Canyon Creek at Highway 150.	1,700	-	-	-	-	-	-	All measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, California.
104	Unnamed creek about 1 mile west of Las Lunas Canyon at bridge 81-159 on Highway 150.	850	-	-	-	-	-	-	do.
110	Hot Spring Creek at mouth.	850	-	-	-	-	-	-	do.
111	Unnamed creek 2 miles west of Hot Spring Canyon, southwest side Highway 150.	800	-	-	-	-	-	-	do.
122	Bear Canyon, unnamed tributary 1.2 mi. southwest of residence of T. M. Storke at diversion dam.	1,870	88 66 45.5	10	175	61.5	a 1 11 4.5	July 3, 1948 Dec. 16, 1948 Feb. 3, 1949	Diversion by T. M. Storke to reservoir.
126	Unnamed creek east of Tequepis Creek, 2.6 miles south of Highway 150.	1,900	-	-	-	-	dry	Dec. 16, 1948 Feb. 3, 1949	Wooden catchment box in stream bed diverts water to earth reservoir of David Gray, Jr.
129	Tequepis Canyon, about 1½ miles above Boy Scout Camp.	2,000	-	-	-	-	a 15-20	June 24, 1948	Discharge estimated by depth of flow over partition in settling box.
135	Tequepis Canyon Creek at Highway 150.	740	-	-	-	-	-	-	All measurements made by Surface Water Branch, U. S. Geological Survey, Los Angeles, California.
137	Unnamed creek, 1.1 miles south of Highway 150 on road to William Harvey Ranch at 6 ft. culvert under east fork of road.	980	-	-	-	-	2.6 7.2	Oct. 22, 1948 Jan. 26, 1949	-
138	Unnamed subsidiary creek near Hilton Canyon at Highway 150.	680	-	-	-	-	-	-	do.
139	Hilton Canyon Creek, 3 miles south of Highway 150 near oil well site.	2,300	-	-	-	-	-	-	do.
141	Hilton Canyon Creek at Highway 150.	630	-	-	-	-	-	-	do.
143	Middle fork of Wons Creek, about 2 miles by road north of El Capitan Lodge at outlet to fish pond.	2,200	39	9.2	240	51.7	26	Jan. 27, 1949	-
146	Wons Creek at Highway 150.	580	-	-	-	-	-	-	do.
150	San Lucas Creek about 2 miles above mouth.	1,000	-	-	-	-	-	-	do.
152	East fork of Quota Creek, 1.4 miles east of Refugio Pass Road.	1,000	-	-	-	-	-	-	do.
156	West branch of Quota Creek, just before junction with east branch, at road on Juan Y Lolita Ranch.	800	-	-	-	-	54	Feb. 1, 1949	No surface flow at junction in east branch; surface flow of west branch disappears at junction as underflow.

a. Estimated.

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