UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Water Resources Division

DATA ON WELLS, SPRINGS, AND THERMAL SPRINGS IN LONG VALLEY, MONO COUNTY, CALIFORNIA

By

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CONTENTS

ILLUSTRATIONS

TABLES

DATA ON WELLS, SPRINGS, AND THERMAL SPRINGS IN LONG VALLEY, MONO COUNTY, CALIFORNIA

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INTRODUCTION

Purpose and Scope

The U.S. Geological Survey started hydrologic, geologic, and geophysical investigations in Long Valley, Calif., in 1972 as part of a national program of geothermal research. As a result of this research, considerable basic data have been collected. The purpose of this report is to make these hydrologic data readily available. The scope of this report includes the tabulation of recent and historical data from wells, test wells, springs, and thermal springs. Included in these data are water-level measurements or flow rates and water temperatures shown in table 1 and chemical analyses shown in table 2. Temperature gradients (change in temperature with well depth) and bottom hole temperature measurements made in selected wells and test wells are shown in table 3.

Location and General Features of the Area

Long Valley is in southwestern Mono County, in east-central California about 35 mi (56 km) northwest of Bishop (fig. 1). The area included in this investigation encompasses about 270 mi^2 (700 km^2) and includes Long Valley and all its contributory drainage areas. The maximum relief of the area is 5,488 ft (1,673 m). The land-surface altitudes range from about 6,780 ft (2,067 m) above sea level at the surface of Lake Crowley to 12,268 ft (3,739 m) at Mount Morrison in the Sierra Nevada near the southern border of the area. The difference in altitudes within this relatively small area is 5,488 ft (1,673 m) and results in extremes of climate.

Precipitation at Long Valley Dam, altitude 6,800 ft (2,073 m), is about 10 in (25 cm) annually. Precipitation along the Sierra Nevada is considerably greater--about 28.7 in (72.9 cm) annually at Mammoth Lakes, Calif., altitude 8,930 ft (2,722 m) and 56.5 in (144 cm) at Mammoth Mountain Pass, altitude 9,500 ft (2,896 m). Between 60 and 70 percent of the precipitation falls as snow during the winter months. Summer temperatures in the valley seldom exceed 90°F (32°C [Celsius]); winter temperatures are commonly below 0°F (-18°C).

The study area covers parts of six topographic quadrangles (fig. 2). The locations of wells and springs are shown in figures 3-13.

Previous Work and Acknowledgments

Most of the hydrologic data from Long Valley are from the prominent thermal springs in the area. The most spectacular area, Casa Diablo, was first mentioned in the literature by Whiting (1888) and Russell (1889). Several of the more prominent thermal springs in the Long Valley area were visited by Waring (1915) and briefly described in his paper on the springs of California. A later paper by Stearns, Stearns, and Waring (1937) repeated Waring's data with minor additional information; the data from that paper were included in a recent report by Waring (1965) but were not updated. A report by the California Department of Water Resources (1967) proposed a water budget for the valley but was primarily concerned with water quality; numerous chemical and spectrographic analyses of surface water, ground water, and water from springs are included in the report. Kaysing (1970) summarized the general features of the major thermal springs in the area but did not include any chemical analyses of the spring waters in his compilation.

The writer acknowledges the assistance of Messrs. Richard Nakahara and Lindsay A. Swain of the U.S. Geological Survey, Hawaii District, in the field collection of well and spring data and test-well drilling in May-July 1972. The cooperation of the U.S. Forest Service, Bureau of Land Management, and the Los Angeles Department of Water and Power in granting drilling permission on lands owned or controlled by them is greatly appreciated.

Conversion Factors

In this report all water temperatures are reported in degrees Celsius (°C). Temperatures originally reported in degrees Fahrenheit (°F) were changed to °C. Degrees F are converted to °C by subtracting 32° and multiplying by 5/9.

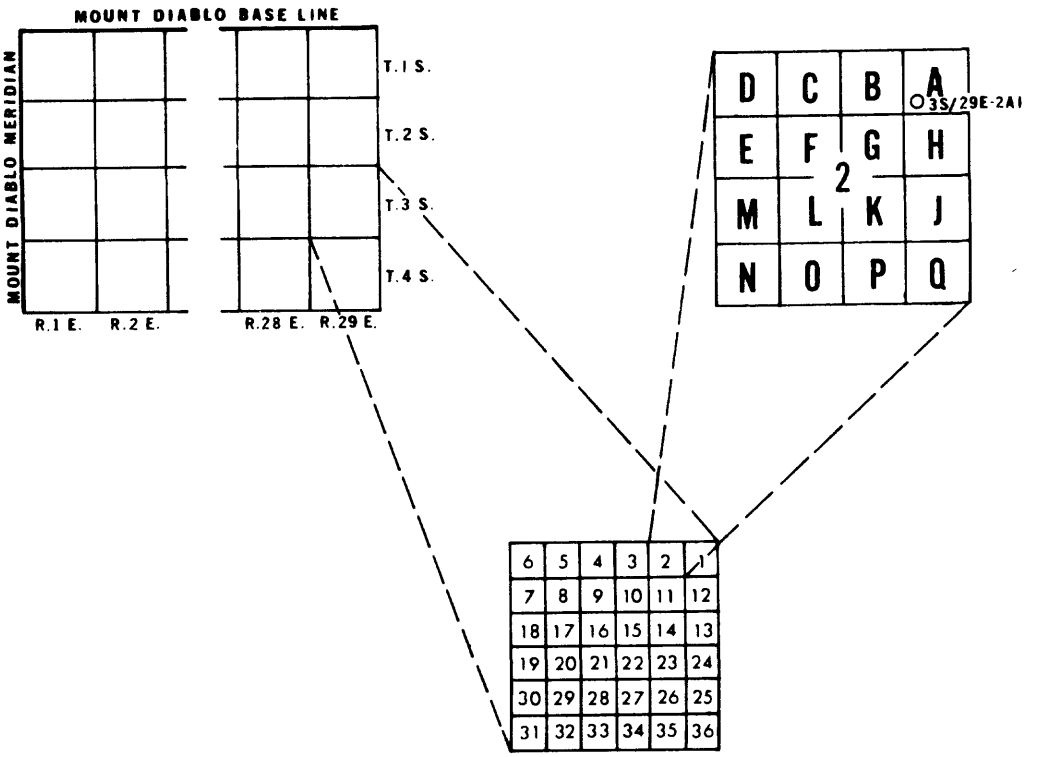
In most reports published since 1900, concentrations of the various chemical constituents are reported in parts per thousand, per hundred thousand, or per million. In this report all concentrations are reported in milligrams per liter. Water containing less than about 7,000 ppm (parts per million) of dissolved solids has a density close to unity, and concentration values, for practical purposes, are the same whether expressed in parts per million or milligrams per liter. However, water containing more than about 7,000 ppm of dissolved solids has a density appreciably above unity, and the concentration values expressed in one unit cannot be equated to those expressed in the other (Waring, 1965, p. 4).

Factors for converting English units to the International System of Units (SI) are given below to four significant figures. However, in the text the metric equivalents are shown only to the number of significant figures consistent with the values for the English units.

English	Multiply by	Metric (SI)
acre	4.047×10^{-1}	ha (hectare)
gal/min (gallon per minute)	0.06309	l/s (liter per second)
ft (foot)	0.3048	m (meter)
in (inch)	2.540	cm (centimeter)
mi (mile)	1.609	km (kilometer)
mi^2 (square mile)	2.590	km^2 (square kilometer)

Well- and Spring-Numbering System

Wells and springs are assigned numbers according to their location in the rectangular system for the subdivision of public land. For example, as shown in the accompanying diagram, in the well number 3S/29E-2A1 the part of the number preceding the slash indicates the township (T. 3 S.), the part between the slash and the hyphen indicates the range (R. 29 E.), the number between the hyphen and the letter indicates the section (sec. 2), and the letter indicates the 40-acre subdivision of the section.



Within the 40-acre (16-ha) tract wells and springs are numbered serially, as indicated by the final digit. Thus, well 3S/29E-2A1 is the first well to be listed in the NE¼NE¼, sec. 2, T. 3 S., R. 29 E., Mount Diablo base line and meridian. Springs are numbered similarly except that an S is placed between the 40-acre (16-ha) subdivision letter and the final digit, as shown in the following spring number: 3S/28E-35ES1.

The letter Z, substituted for the letter designating the 40-acre (16-ha) tract, indicates the well or spring was plotted from unverified descriptions; the described locations of such wells or springs were visited, but the data could not be correlated with existing wells or springs.

SHALLOW TEST-DRILLING PROGRAM

Forty-seven test wells were drilled in May, June, and October 1972 and May 1973 using the hollow-stem auger rig. The locations of the wells are shown in figures 3-13. Depth of the holes ranged from 6 to 107 ft (1.8 to 33 m), and the aggregate depth of the holes is 2,478 ft (755 m). The test wells were drilled to obtain (1) the depth to the ground-water surface, (2) geothermal-gradient measurements, and (3) geologic information about the water-bearing properties of the shallow sedimentary deposits.

Polyvinyl-chloride (PVC) pipe, 2 in (5 cm) in diameter, was set in 40 of the holes. Well points, 18 in (46 cm) in length, were placed at the bottom of the PVC pipe in 28 of the holes; slotted PVC pipe was used in 6 holes. In six test wells where drilling was terminated above the water table, closed-end PVC pipe was emplaced and filled with water in order to obtain subsequent measurements of the geothermal gradient.

CLASSIFICATION OF SPRINGS

Strictly defined, any spring (or well) water whose average temperature is noticeably above the mean annual temperature of the air at the same locality may be classed as thermal (Waring, 1965, p. 4). Among European springs that are developed commercially, only those whose temperature is higher than about 20°C are classified as thermal. In the United States, only those springs are called thermal whose temperature is 15 Fahrenheit degrees (8.4 Celsius degrees) above the mean annual temperature of the air at their localities. In areas where the mean annual air temperature is low, some springs that do not freeze in winter because of their natural protective conditions are considered to be thermal; in tropical areas some springs that are only a few degrees warmer than the temperature of the air may be considered thermal.

In the Long Valley area the average annual temperature is about 45°F (7.2°C). By United States standards, then, and for the purpose of this report, any spring having a temperature of 45° + 15°F or 60°F (15.6°C) may be classified as thermal.

TEMPERATURE MEASUREMENTS IN WELLS AND TEST WELLS

Temperature measurements were obtained from selected wells and test wells at various depth intervals using a measuring system borrowed from J. H. Sass of the U.S. Geological Survey in Menlo Park, Calif. The measuring system consisted of a multiconductor cable and hoist, a thermistor thermometer, and a resistance measuring system and is described in detail in Sass and others (1971). Temperatures converted from measured resistances and their depths are shown in table 3.

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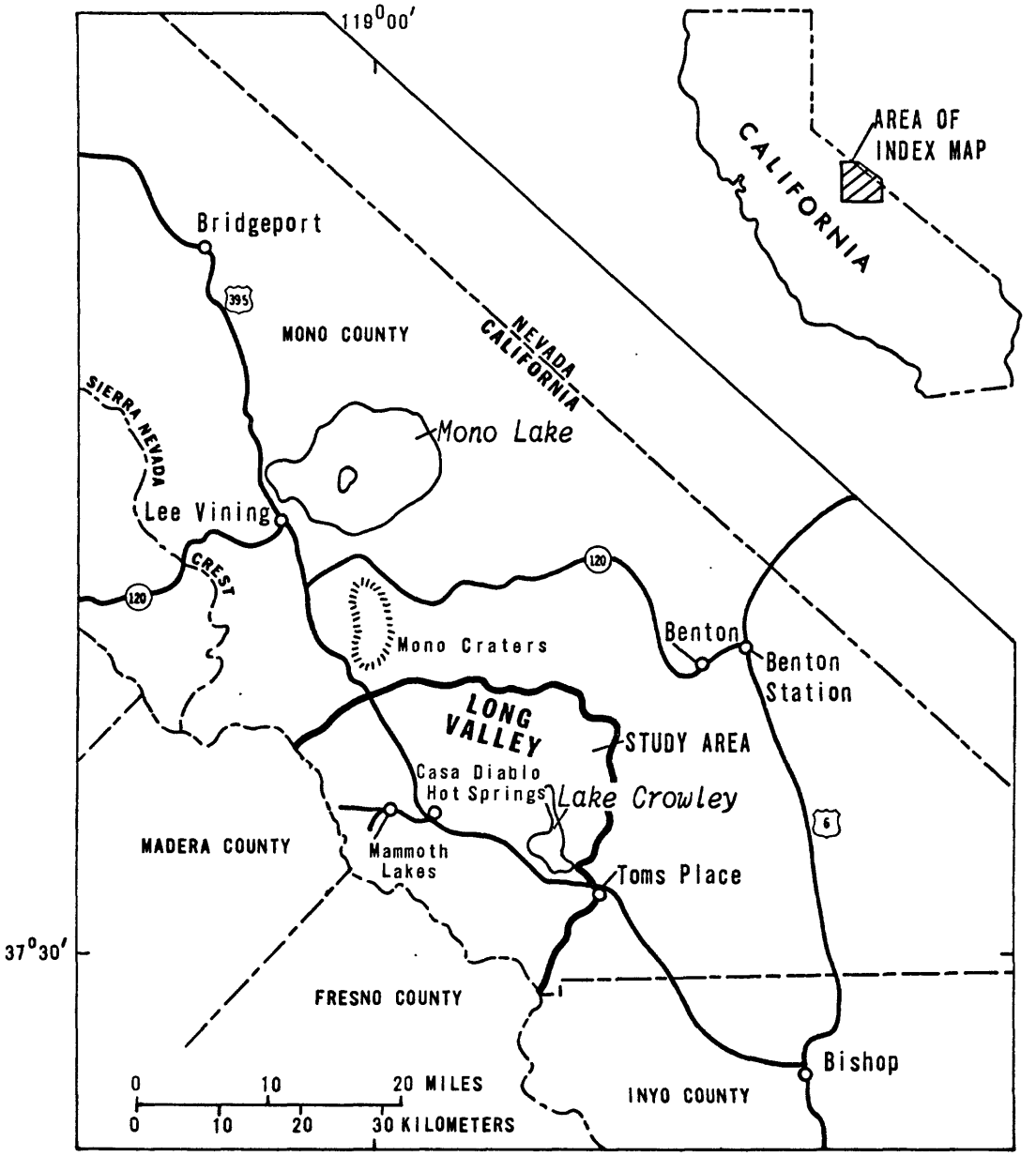


FIGURE 1.—Index map.

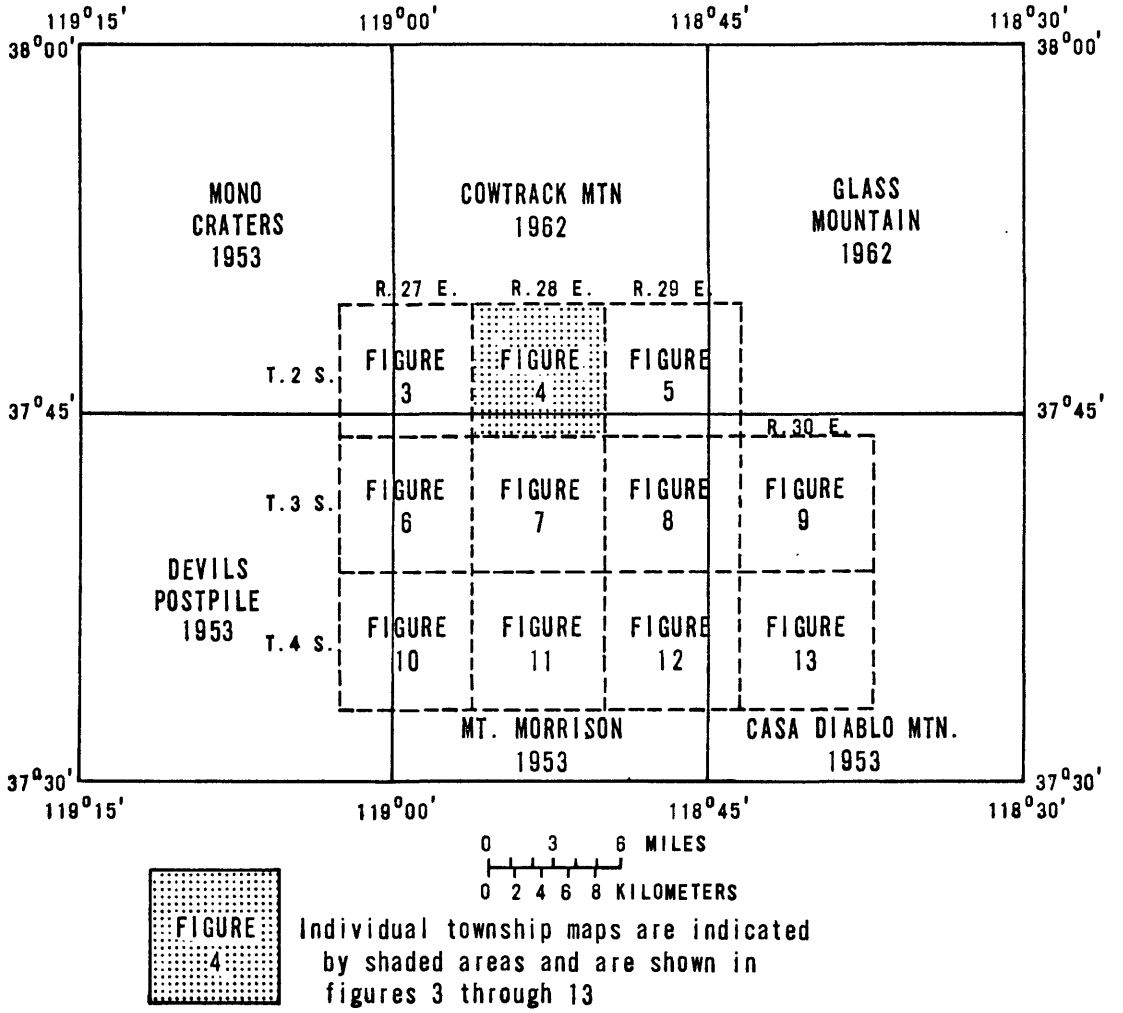
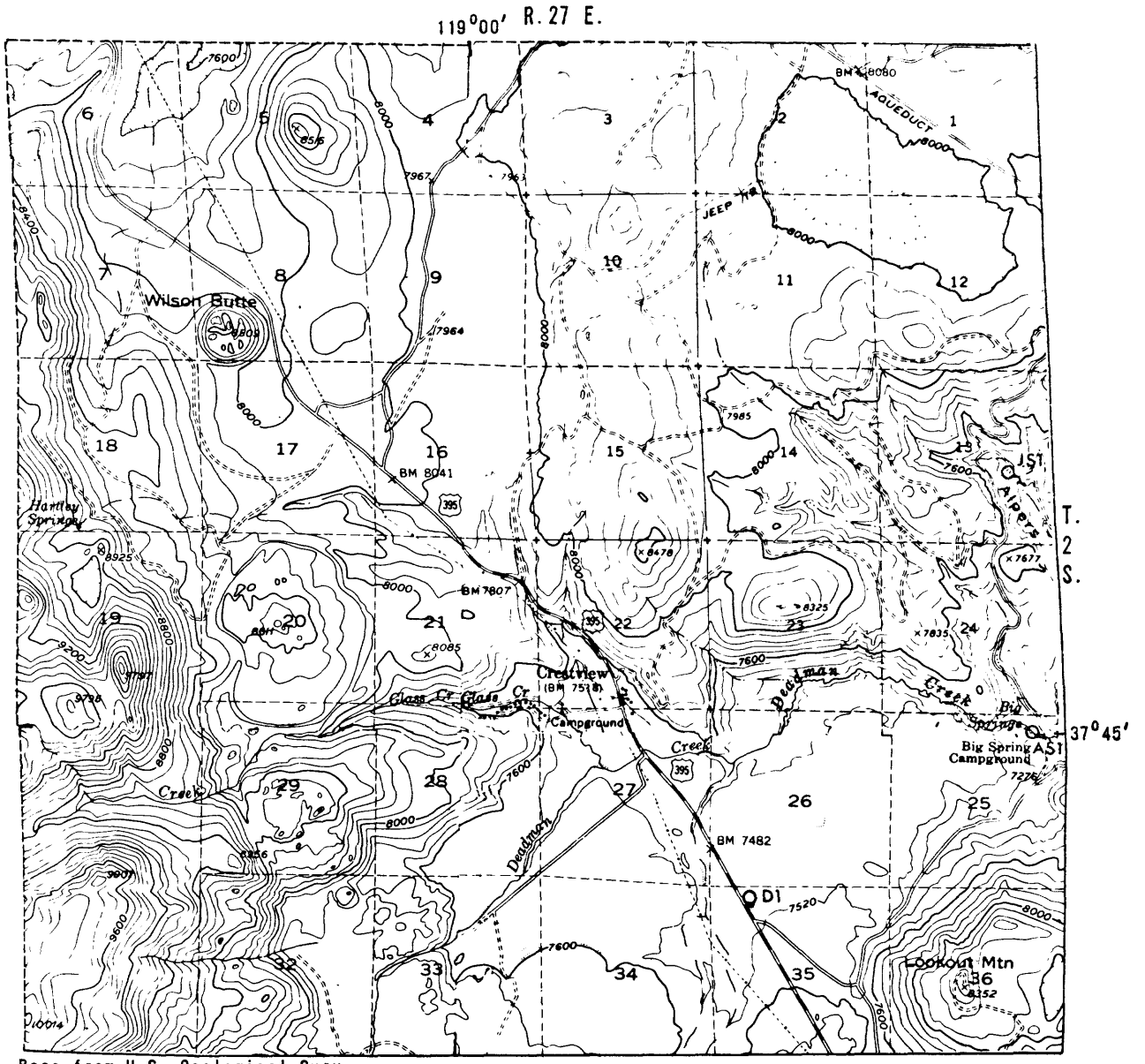


FIGURE 2.—Index of quadrangle maps.



Base from U.S. Geological Survey
Mono Craters, 1953, Cowtrack Mtn., 1962, Devils Postpile, 1953, and Mt. Morrison, 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

^{D1} WELL AND NUMBER

^{JS1} SPRING AND NUMBER

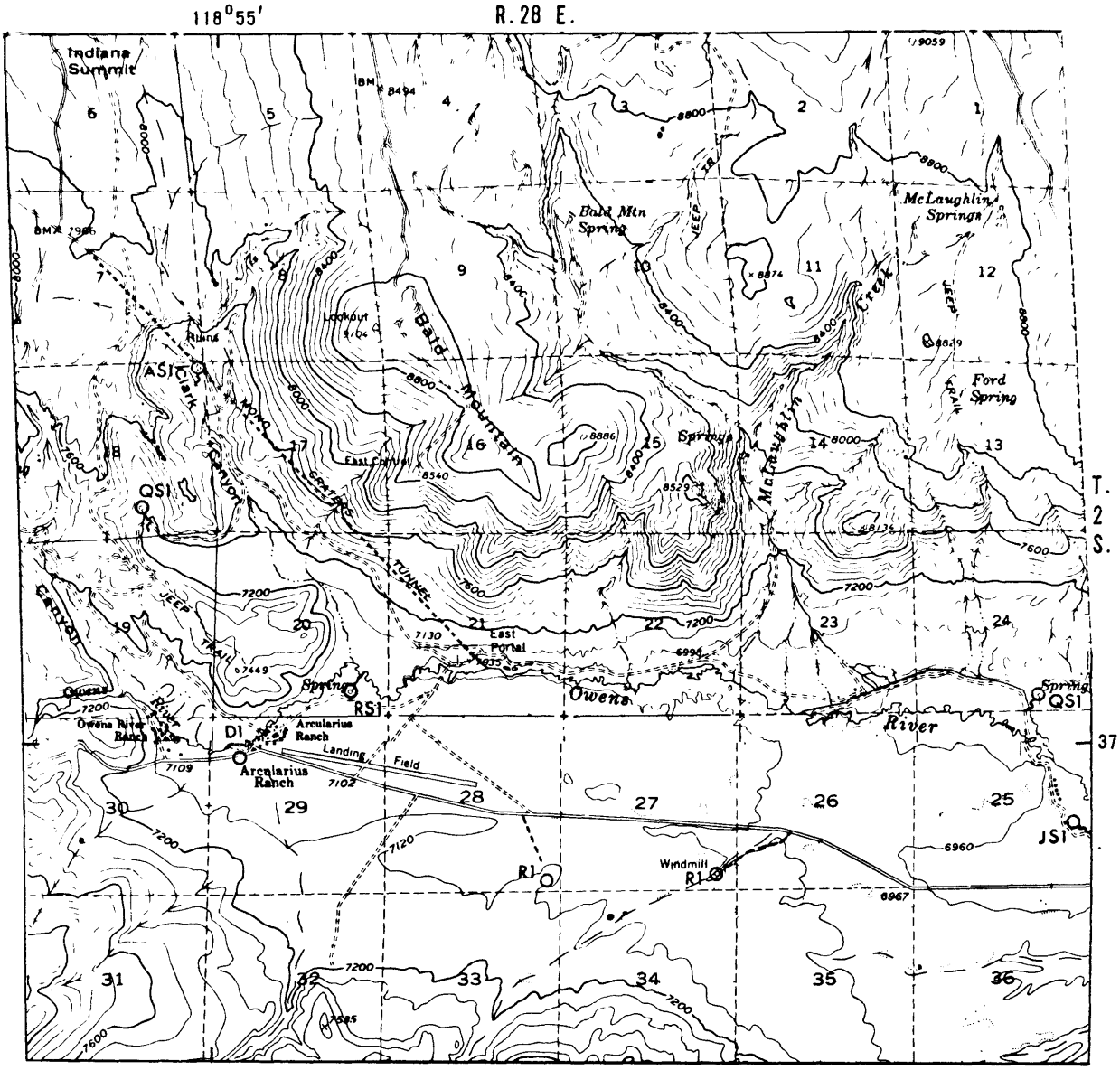
0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 3.—Location of wells and springs in T. 2 S., R. 27 E.



Base from U.S. Geological Survey
Cowtrack Mtn., 1962, and
Mt. Morrison, 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

^{D1} WELL AND NUMBER

^{QSI} SPRING AND NUMBER

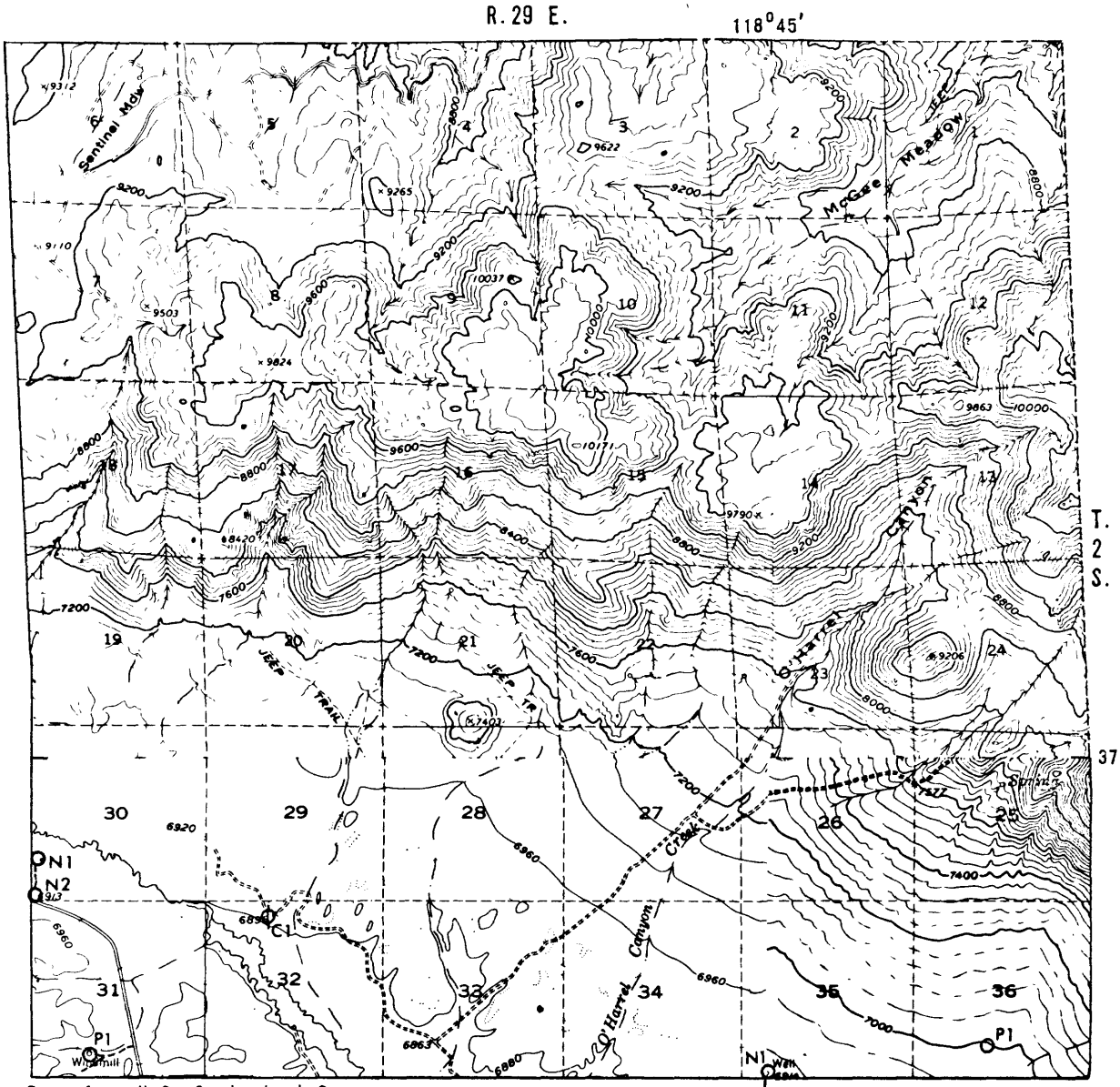
0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 4.—Location of wells and springs in T. 2 S., R. 28 E.



Base from U.S. Geological Survey
Cowtrack Mtn., 1962, Glass Mountain, 1962, Mt. Morrison, 1953, and Casa Diablo Mtn., 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

$\circ^{P1}$ WELL AND NUMBER

ϕ^{C1} SITE OF DESTROYED WELL AND NUMBER

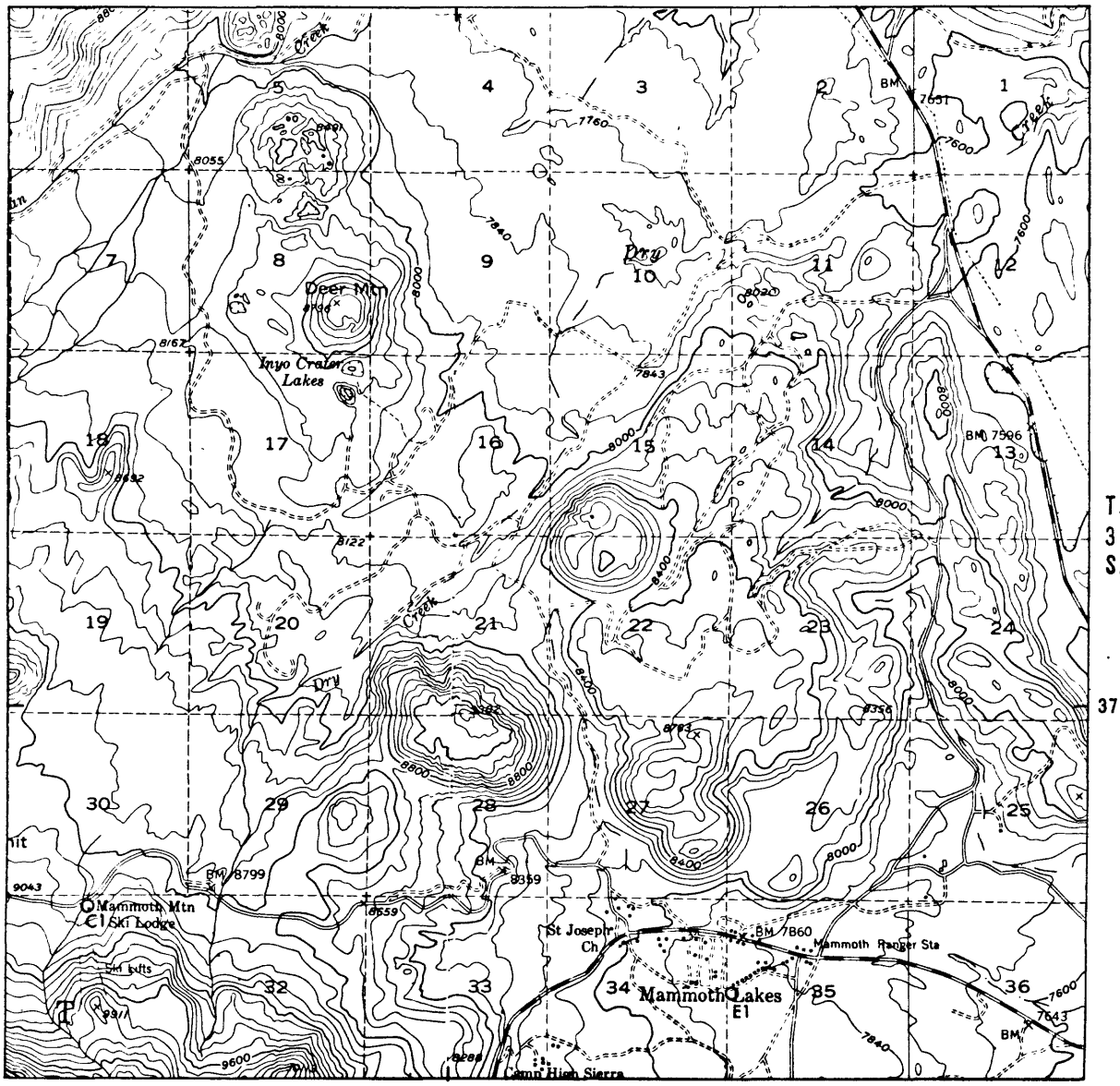
0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 AND 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 5.—Location of wells in T. 2 S., R. 29 E.



Base from U.S. Geological Survey
Devils Postpile, 1953, and Mt. Morrison, 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

O^{E1} WELL AND NUMBER

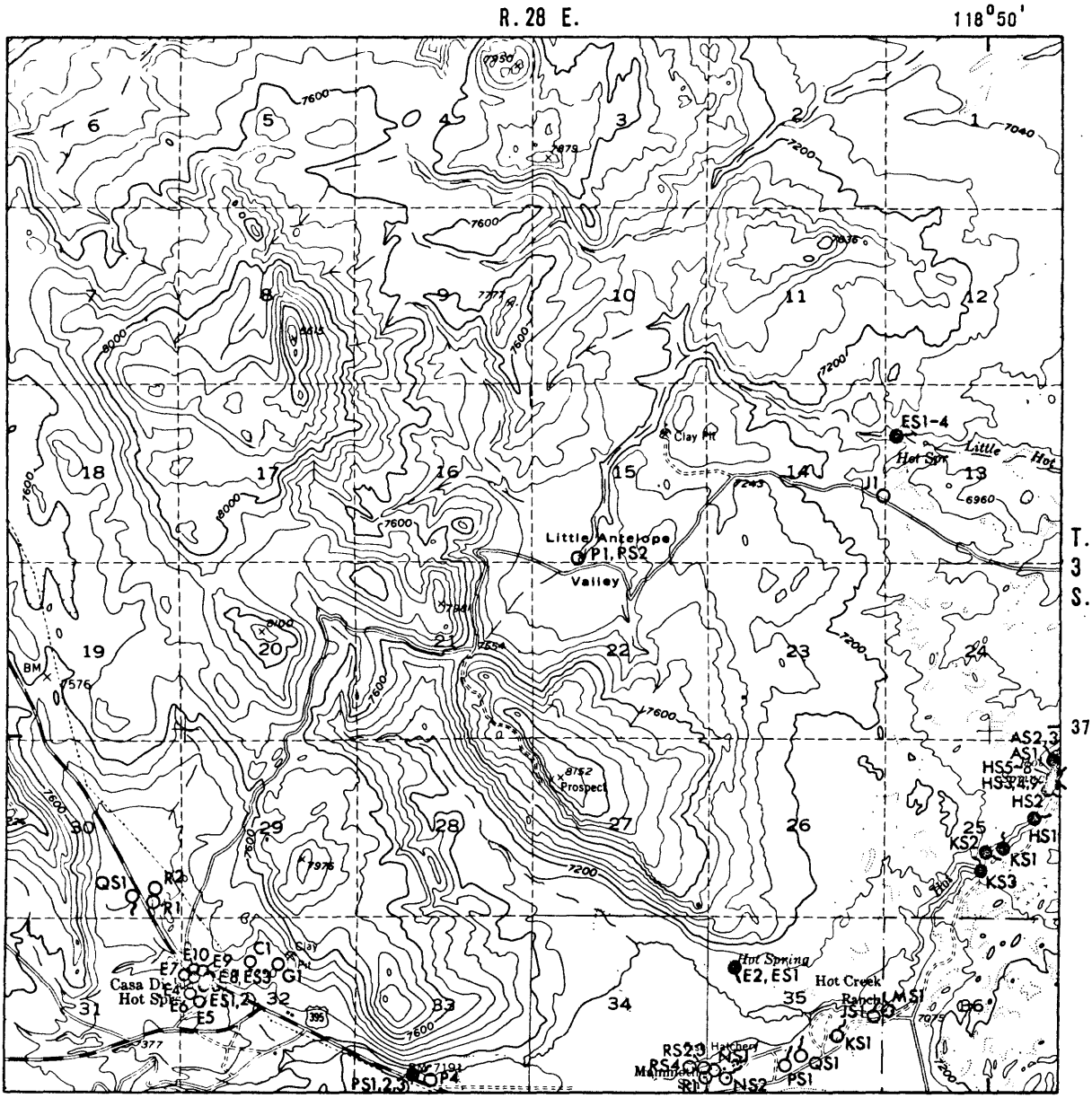
0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 6.--Location of wells in T. 3 S., R. 27 E.



Base from U.S. Geological Survey
Mt. Morrison, 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

- $\circ^{R1}$ WELL AND NUMBER
- $\bullet^{ES1}$ THERMAL SPRING AND NUMBER
- $\circ^{PS1}$ SPRING AND NUMBER

0 1 2 MILES
0 1 2 3 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 7.—Location of wells and springs in T. 3 S., R. 28 E.

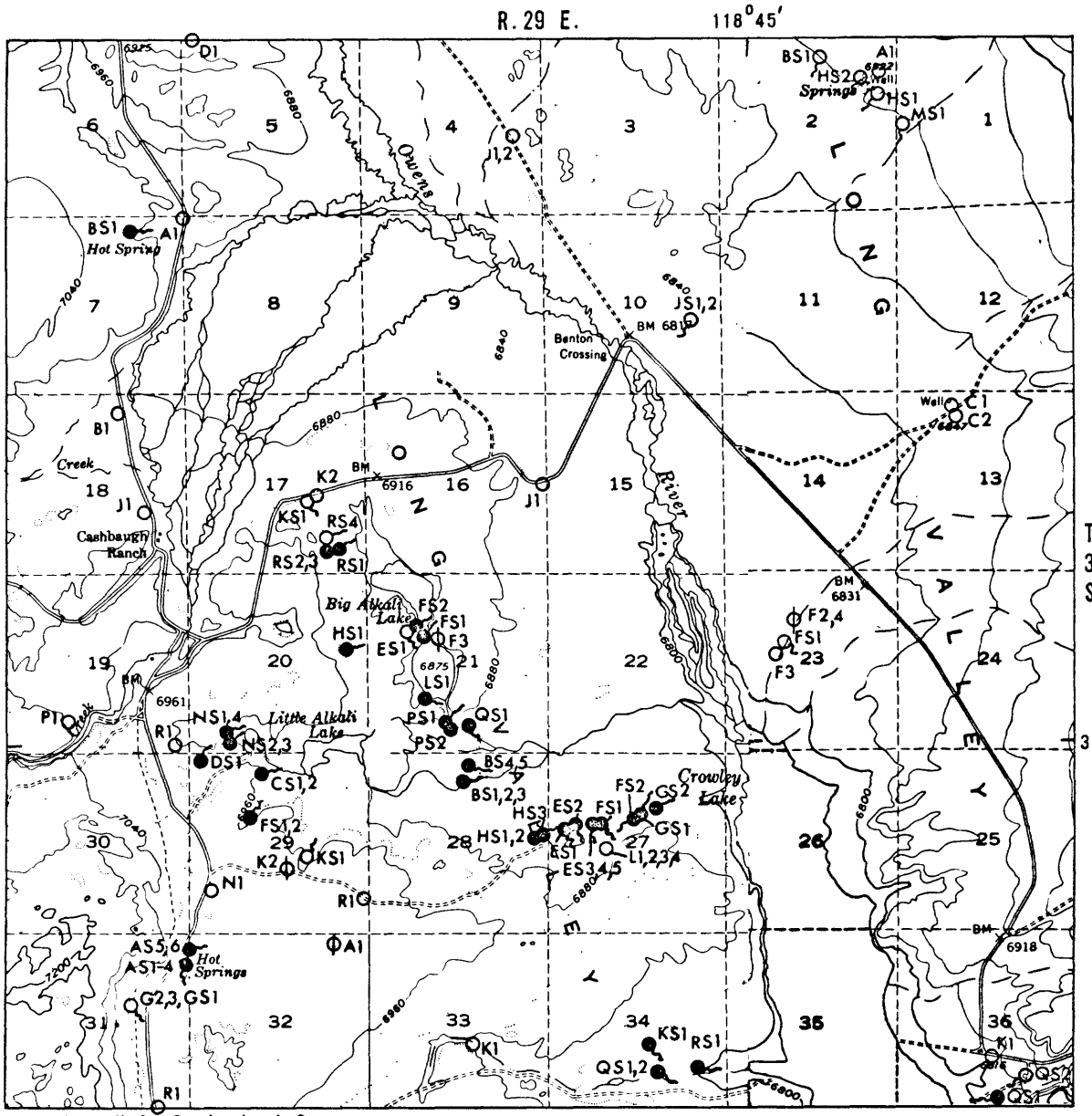


FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

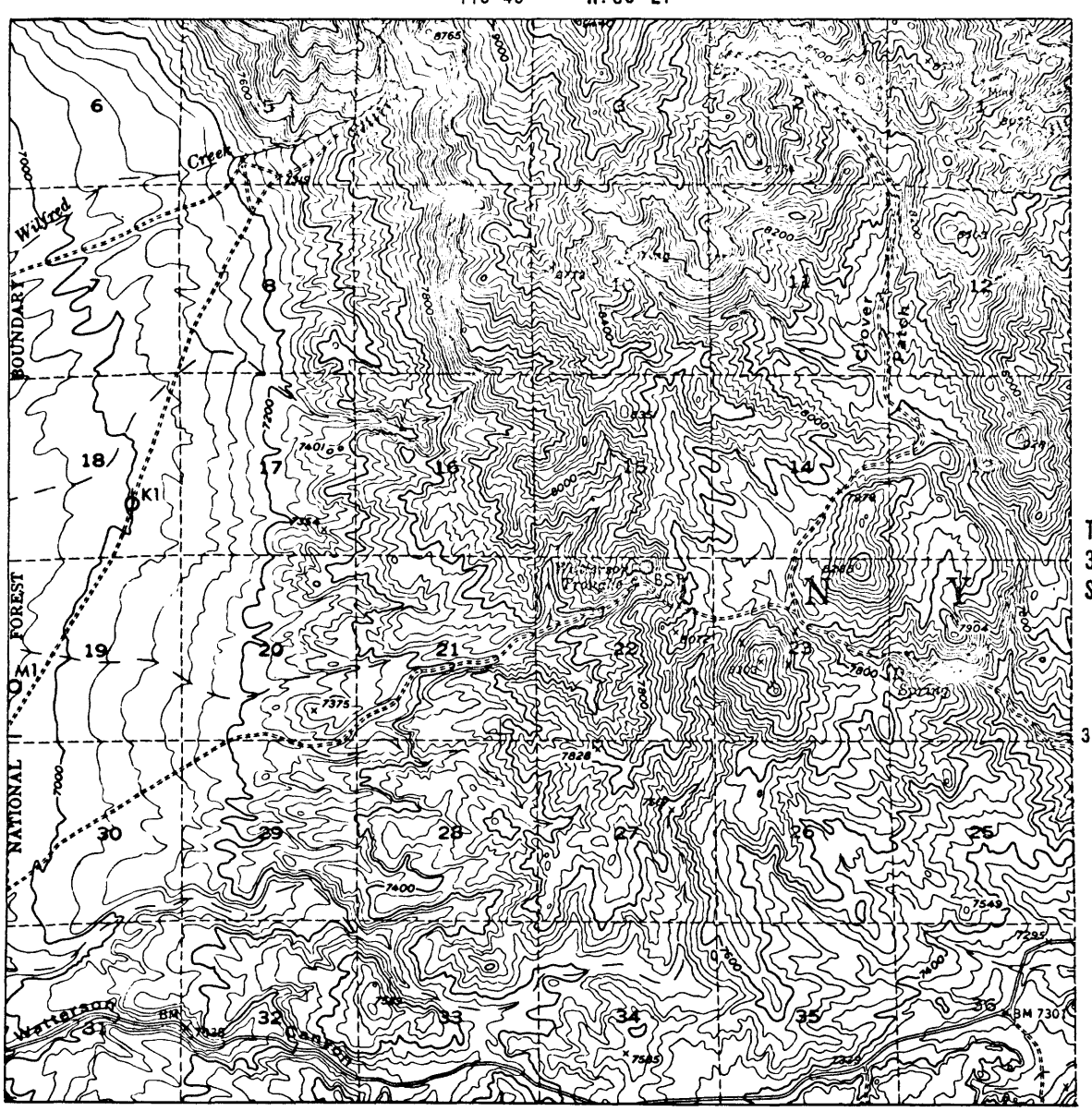
- O^{K1} WELL AND NUMBER
- ϕ^{A1} SITE OF DESTROYED WELL AND NUMBER
- Q^{RS1} SPRING AND NUMBER
- $\bullet^{NS1}$ THERMAL SPRING AND NUMBER

0 1 2 MILES
0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 AND 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 8.—Location of wells and springs in T. 3 S., R. 29 E.



Base from U.S. Geological Survey
Casa Diablo Mtn., 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

$\circ^{M1}$ WELL AND NUMBER

ϕ^{K1} SITE OF DESTROYED WELL AND NUMBER

ρ^{BS1} SPRING AND NUMBER

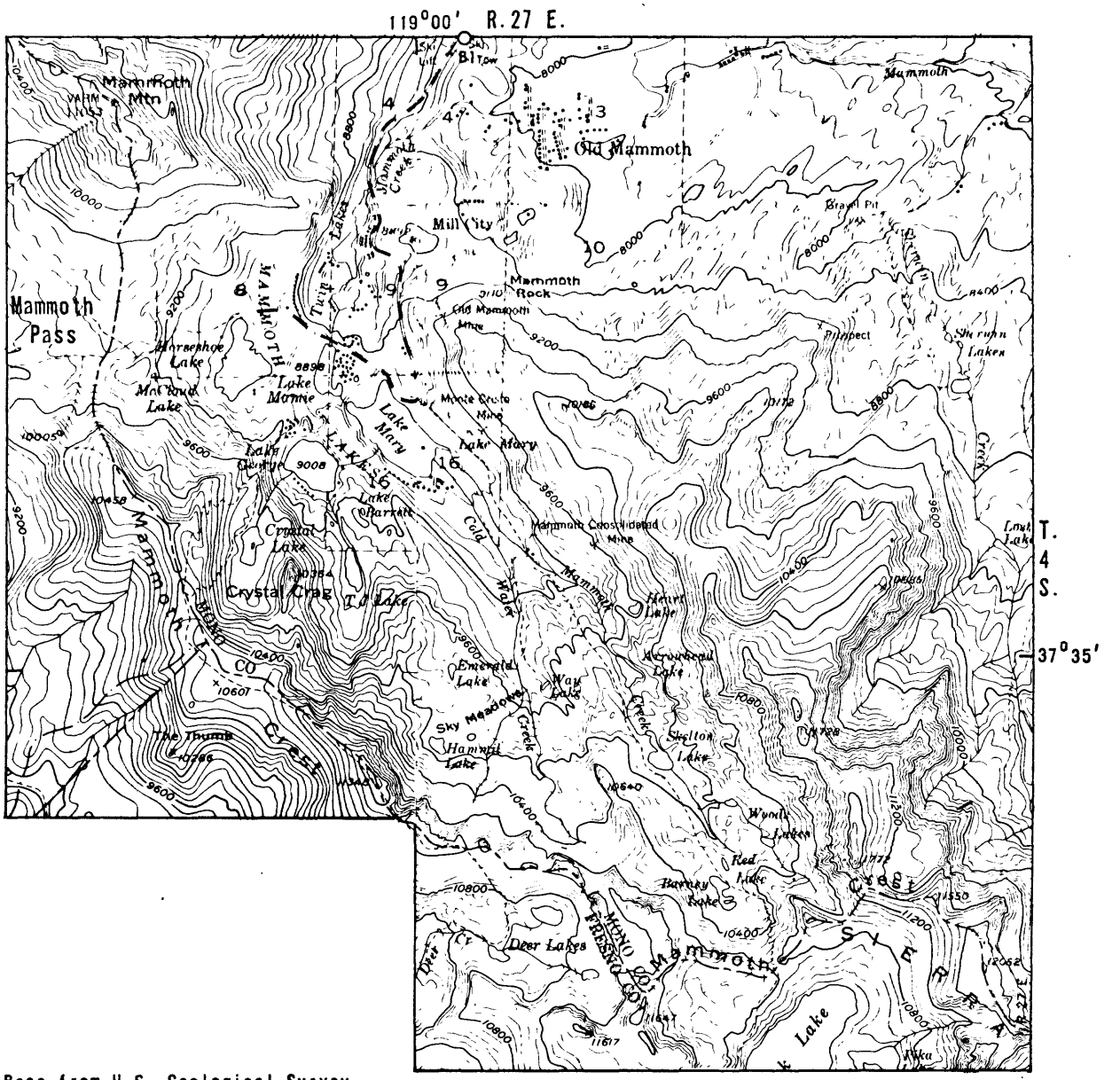
0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 9.--Location of wells and springs in T. 3 S., R. 30 E.



Base from U.S. Geological Survey
Devils Postpile, 1953, and
Mt. Morrison, 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

o^{B1} WELL AND NUMBER

0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 10.--Location of wells in T. 4 S., R. 27 E.

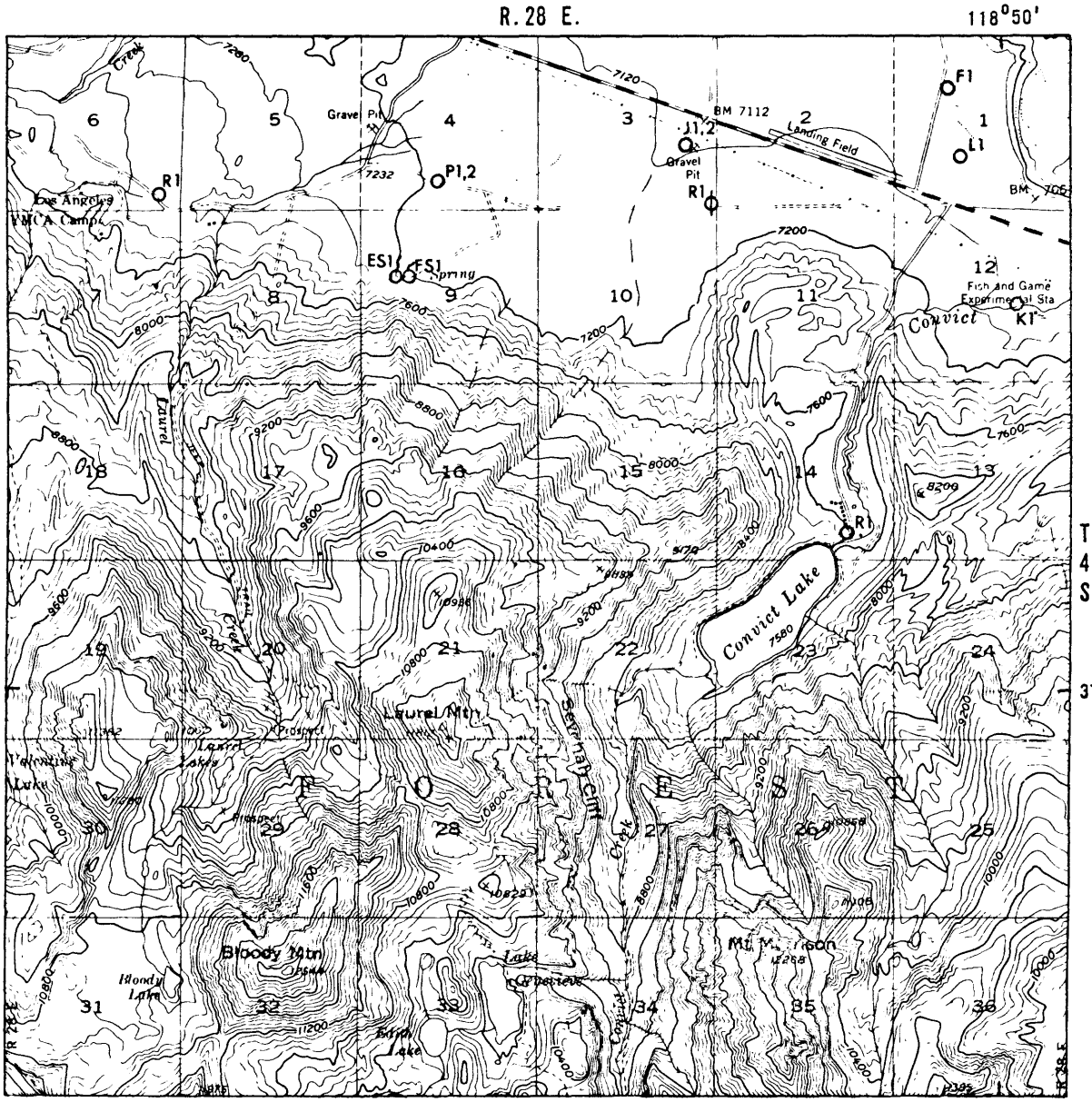


FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

^{F1} WELL AND NUMBER

^{FS1} SPRING AND NUMBER

^{R1} SITE OF DESTROYED WELL AND NUMBER

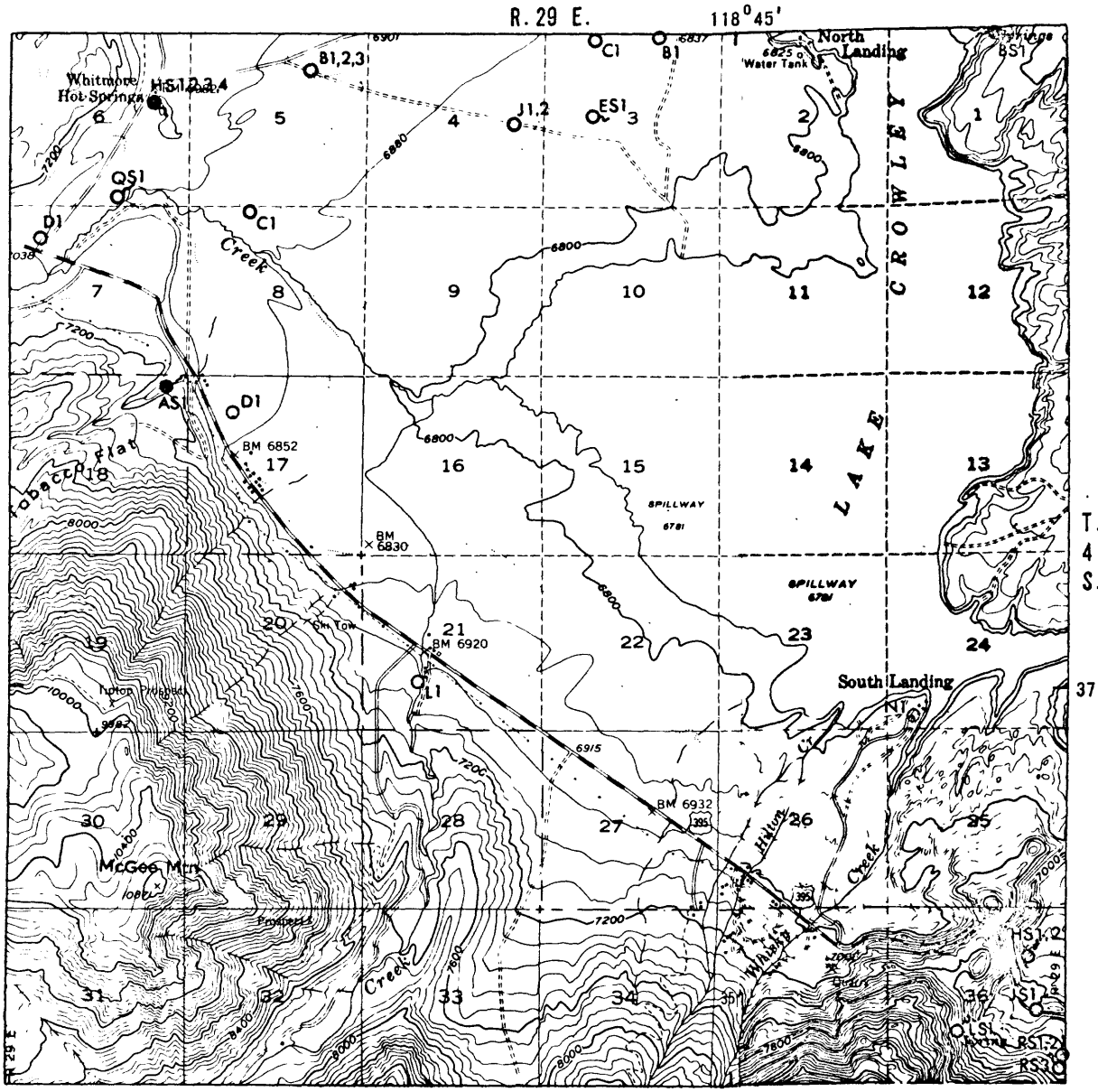
0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 11.—Location of wells and springs in T. 4 S., R. 28 E.



Base from U.S. Geological Survey
Mt. Morrison, 1953, and Casa
Diablo Mtn., 1953

FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

- O^{D1} WELL AND NUMBER
- Q^{QS1} SPRING AND NUMBER
- $HS1$ THERMAL SPRING AND NUMBER

0 1 2 MILES
0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 AND 80 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 12.--Location of wells and springs in T. 4 S., R. 29 E.

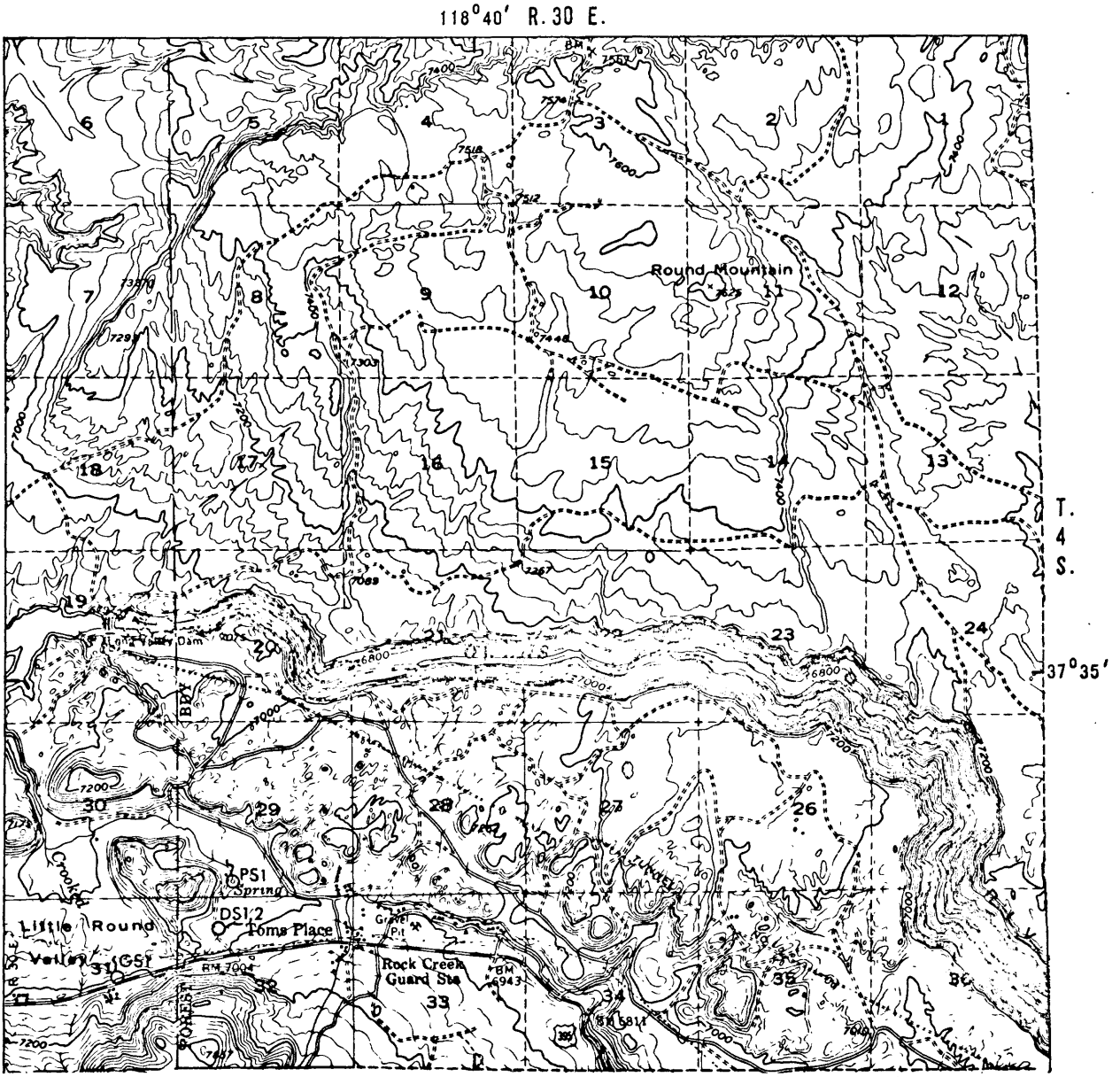


FIGURE 3	FIGURE 4	FIGURE 5	
FIGURE 6	FIGURE 7	FIGURE 8	FIGURE 9
FIGURE 10	FIGURE 11	FIGURE 12	FIGURE 13

EXPLANATION

Q^{PS1} SPRING AND NUMBER

0 1 2 MILES

0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

(To convert feet to meters, multiply by 3.048×10^{-1})

FIGURE 13.—Location of springs in T. 4 S., R. 30 E.

TABLE 1.--*Description of wells and springs*

[Boxhead explanations are abstracted from U.S. Geological Survey "Instructions for Using the Punch-Card System for the Storage and Retrieval of Ground-Water Data"]

State well number: The wells are identified according to their location in the rectangular system for the subdivision of public land. The identification consists of the township number, north or south; the range number, east or west; and the section number. The section is further subdivided into sixteen 40-acre tracts lettered consecutively (excepting I and O), beginning with A in the northeast corner of the section and progressing in a sinusoidal manner to R in the southeast corner. Wells within the 40-acre tract are numbered sequentially. The base line and meridian are indicated by the final letter, as follows: H, Humboldt; M, Mount Diablo; S, San Bernardino.
Spring number: Springs are numbered similarly. However the letter S is added after the 40-acre tract letter to differentiate the spring from a well.

Owner or user: The apparent owner or user on the date indicated. In some cases, the local name of the well or spring is given.

Ownership:

- C County
- F Federal Government
- M City, town, or unincorporated village
- N Corporation or company, churches, lodges, and other nonprofit, nongovernment groups
- P Private
- S State agency
- W Water district.

Use of water:

- A Air conditioning
- B Bottling
- C Commercial
- D Dewatering
- E Power generation
- F Fire protection
- H Domestic
- I Irrigation
- M Medicinal
- N Industrial, including mining
- P Public supply
- R Recreation
- S Stock supply
- T Institutional
- U Unused
- V Repressurization
- W Recharge
- X Desalination, public supply
- Y Desalination, other use
- Z Other.

Use of well:

- A Anode
- D Drainage
- G Seismic hole
- H Heat reservoir
- O Observation
- P Oil or gas
- R Recharge
- T Test hole
- U Unused
- W Withdraw water
- X Waste disposal
- Z Destroyed.

Well data: In tabulation below, C, complete data; N, no data; P, partial data. Complete physical data include depth, diameter, and finish. Complete geologic data include lithology and aquifer thickness. Complete water-level data include altitude of land-surface datum, in feet above mean sea level; water level, in feet above(+) or below land-surface datum; and date of measurement. Complete yield data include rate of pumping and drawdown.

Code symbol	1	2	3	4	5	6	7	8	9	0
Physical	C	C	P	C	C	P	C	C	P	P
Geologic	C	C	P	C	C	N	C	N	P	N
Water level	C	C	C	N	N	P	P	C	C	N
Yield	C	N	C	C	N	P	C	N	N	P

Chemical analyses:

- C Complete
- G Dissolved gases
- J Conductance and chloride
- K Conductance
- L Chloride
- M Multiple (complete and one or more partials)
- P Partial
- R Radiochemical (plus partial or complete chemical)
- S Special (tritium, carbon-14, and all other special determinations)
- T Trace elements (spectrographic).

Log data:

- A Drilling-time
- B Casing-collar
- C Caliper (diameter) survey
- D Driller's
- E Electric
- F Fluid-conductivity or fluid-resistivity
- G Geologist or sample
- H Magnetic
- I Induction
- J Gamma-ray
- K Dipmeter or directional (inclinometer) survey
- L Laterolog
- M Microlog
- N Neutron
- O Microlaterolog
- P Photographic
- Q Radioactive-tracer
- R Radiation (includes both neutron and gamma-ray)
- S Sonic
- T Temperature
- U Temperature and fluid-conductivity (resistivity)
- V Fluid-velocity
- W Electric and radiation
- X Electric, radiation, caliper, and fluid-velocity
- Y Electric, radiation, and sample (or driller's)
- Z Electric, radiation, temperature, and fluid-conductivity.

Depth of well: Depth, in feet below land-surface datum, as reported by owner, driller, or others, or as measured by the Geological Survey.

Depth cased: Length of casing, in feet below land-surface datum, to the top of the first perforations.

Diameter: Inside diameter of the well, in inches; nominal inside diameter, in inches, of the innermost casing at the surface for drilled cased wells.

Well finish:

- C Porous concrete
- F Gravel wall, perforated or slotted casing
- G Gravel wall, commercial screen
- H Horizontal gallery or collector
- O Open end
- P Perforated or slotted casing
- S Screen
- I Sand point
- W Walled or shored
- X Open hole in aquifer (generally cased to aquifer)
- Z Other.

Method drilled:

- A Rotary
- B Bored or augered
- C Cable-tool
- D Dug
- H Hydraulic-rotary
- J Jetted
- P Air percussion
- R Reverse-rotary
- T Trenching
- V Driven
- W Drive-wash
- Z Other.

Lift type:

- A Air
- B Bucket
- C Centrifugal
- J Jet
- L Multiple (centrifugal)
- M Multiple (turbine)
- N None
- P Piston
- R Rotary
- S Submergible
- T Turbine
- Z Other.

Power:

1 Hand

2 Natural gas engine
- A 0-20 hp
- B >20-50
- C >50-100
- D >100-200
- E >200

3 Gasoline engine
- F 0-5 hp
- G >5-20
- H >20-50
- J >50-100
- K >100-200
- L >200

4 Diesel engine
- M 0-50 hp
- N >50-150
- P >150-400
- Q >400-750
- R >750

5 Electric motor
- S 0-1 hp
- T >1-5
- U >5-15
- V >15-100
- W >100

6 Wind

7 LP gas engine (propane or butane)
- A 0-20 hp
- B >20-50
- C >50-100
- D >100-200
- E >200

8 Other.

Altitude of lsd: Altitude of land-surface datum, in feet, above mean sea level. Land-surface datum is an arbitrary plane closely approximating land surface at the time of the first measurement and used as the plane of reference for all subsequent measurements.

Water level: Depth to water, in feet, above(+) or below land-surface datum.

Date measured: Month and year of the water-level measurement; other data given generally apply for this date.

Yield of well (or spring): Yield, in gallons per minute; drawdown, in feet.

State well number	Owner or user	Ownership	Use of water	Use of well	Well data	Chemical analyses	Log data	Depth of well (feet below lsd)	Depth cased (feet below lsd)	Diameter (inches)	Well finish	Method drilled	Year drilled	Lift type	Power	Altitude of lsd (feet)	Water level (feet below lsd)	Date measured	Yield of well: Gallons per minute	Yield of well: Drawdown (feet)
2S/27E-35D1	USGS[1] LV-27	F	U	T			G,T	60	60	2	Z	B	1972	N		7,505	dry	6-12-72		
2S/28E-27R1			U	U				43		36	P	C		P	6	7,040	36	6-25-60		
																	30.4	5-11-72		
2S/28E-28R1			U	U		C					P	C		P	6	7,125		5-11-72		
2S/28E-29D1	Arcularius Ranch	P	H	W		C	T	42		8	P	C	1960	P	6	7,100	12.8	6-13-66		
																	11.14	5-11-72		
2S/29E-30N1	Arcularius Ranch	P	H	W										P	6	6,940		5-11-72		
2S/29E-30N2	Arcularius Ranch	P	U	U			T	35		8	P	C		N		6,913	8.90	5-11-72		
2S/29E-31P1		P	U	U		C		9		36	P	C		P	6	6,915	6	6-13-66		
																	3.93	5-10-72		
																	3.60	8- 9-73		
2S/29E-32C1	USGS[1] LV-14	F	U	Z			G	0				B	1972			6,890	8	5-31-72		
2S/29E-35N1		P	S	W						6	P	C		P	6	6,914	2.30	5-10-72		
2S/29E-36P1		P	U	U						6	P	C		P	6	6,995	69.61	5-10-72		
3S/27E-31C1	Mammoth Mtn. Inn	P	C	W		C		110												
3S/27E-35E1		P	U	U				14		6	P	C		T	U	7,880	13.5	5-30-72		
3S/28E-14J1	USGS[1] LV-46	F	U	T			G,T	103	103	2	Z	B	1973	N		7,160	dry	5-18-73		
3S/28E-15P1	U.S. Forest Svc	F	U	U		C		14		30				P	6	7,200	1.01	5- 8-72		
3S/28E-30R1	USGS[1] LV-15	F	U	T		C	G,T	57	55	2	T	B	1972	N		7,340	4.73	5-31-72		
																	5.42	10-4-72		
																	5.39	5-15-73		
																	4.95	8- 7-73		
3S/28E-30R2	USGS[1] LV-44	F	U	T			G,T	79	77	2	T	B	1973	N		7,340	7.53	8- 7-73		
3S/28E-32C1	Magma Power Co.	P	U	T						12	O			N		7,340				
3S/28E-32E4	Magma Power Co.	P	U	U		C	T	22		6	P	C		N		7,340	21.3	6-22-72		
3S/28E-32E5	Magma Power Co.	P	U	T		M		630	400	8½	O	H	1959	N		7,360				
3S/28E-32E6	Magma Power Co.	P	U	T		M		810	406	8½	O	H	1960	N		7,360				
3S/28E-32E7	Magma Power Co.	P	U	T		C		570	352	8½	O	H	1960	N		7,360				
3S/28E-32E8	Magma Power Co.	P	U	T		P		513	224	12	O		1961	N		7,350				
3S/28E-32E9	Magma Power Co.	P	U	T		C		405	235	12	O		1962	N		7,350				
3S/28E-32E10	Magma Power Co.	P	U	T				756	192	12	O		1962	N		7,350				
3S/28E-32G1	Magma Power Co.	P	U	T		C		670		12	O		1962	N		7,025				
3S/28E-33P4	Mono Co. Sheriff	C	H	W		C	D	80	51	8	P	C	1961	T	T	7,183	23.80	5-12-72		
3S/28E-34R1	Mammoth School	C	T	W		C		47		8	P	C	1949			7,070		5-23-72		
3S/28E-35E2	Magma Power Co.	P	U	T				805	237	18	O		1961	N		7,025	11.7	8- 1-73		

See footnotes at end of table.

State well number	Owner or user	Ownership	Use of water	Use of well	Well data	Chemical analyses	Log data	Depth of well (feet below lsd)	Depth cased (feet below lsd)	Diameter (inches)	Well finish	Method drilled	Year drilled	Lift type	Power	Altitude of lsd (feet)	Water level (feet below lsd)	Date measured	Yield of well: Gallons per minute	Yield of well: Drawdown (feet)
3S/29E-2A1		P	S	W						10	P	C		P	6	6,922		5-10-72		
3S/29E-4J1	USGS[1] LV-7	F	U	T		C	G,T	99	69	2	P	B	1972	N		6,870	+0.6 +0.6 +0.4 +0.8	6-14-72 10- 4-72 5-11-73 8- 9-73		
3S/29E-4J2	USGS[1] LV-8	F	U	T			G,T	12	10	2	T	B	1972	N		6,870	8.15 8.99 4.37 5.27	5-24-72 10- 4-72 5-11-73 8- 9-73		
3S/29E-5D1	USGS[1] LV-40	F	U	T			G,T	39	37	2	T	B	1973	N		6,930	18.83 18.31	5-17-73 8- 4-73		
3S/29E-7A1	USGS[1] LV-25	F	U	T			G,T	17	15	2	T	B	1972	N		6,910	10.44 5.57 6.42	6- 9-72 5-17-73 8- 4-73		
3S/29E-13C1		P	S	W		C		80		6	P	C		N		6,860	flow flow	5- 9-72 10- 9-72	1.8 1.4	
3S/29E-13C2	USGS[1] LV-21	F	U	T			G,T	22	20	2	T	B	1972	N		6,855	8.2 8.57 8.45	6- 6-72 10- 9-72 8- 9-73		
3S/29E-16J1	USGS[1] LV-10	F	U	T		C	G,T	15	13	2	T	B	1972	N		6,835	2.81 3.50 3.66	5-24-72 10- 9-72 8- 9-73		
3S/29E-17K2	USGS[1] LV-41	F	U	T		C	G,T	41	39	2	T	B	1973	N		6,905	0.62 0.47	5-17-73 8- 9-73		
3S/29E-18B1	USGS[1] LV-31	F	U	T		C	G	6	4	2	T	B	1972	N		6,930	4.26 +0.04 1.85	10-20-72 5-17-73 8- 4-73		
3S/29E-18J1	USGS[1] LV-30	F	U	T			G	8	6	2	T	B	1972	N		6,915	4.08 1.17	10-20-72 8- 4-73		
3S/29E-19P1	USGS[1] LV-47	F	U	T			G,T	102	102	2	Z	B	1973	N		7,025	dry	5-21-73		
3S/29E-19R1	USGS[1] LV-42	F	U	T		C	G,T	22	20	2	T	B	1973	N		6,960	6.01 6.29 6.27	5-17-73 8- 2-73 10- 1-73		
3S/29E-21F3	USGS[1]	F	U	G		C				5	X	H	1973	N		6,880	flow	5-8-73	1.4	
3S/29E-23F2	USGS[1] LV-9	F	U	Z			G	0				B	1972			6,820		5-24-72		
3S/29E-23F3	USGS[1] LV-12	F	U	T			G,T	12	10	2	T	B	1972	N		6,810	4.24 4.92 2.78 4.29	5-31-72 10- 9-72 5-11-73 8- 9-73		
3S/29E-23F4	USGS[1] LV-13	F	U	Z			G	0				B	1972			6,820	5.2	5-31-72		
3S/29E-27L1	USGS[1] LV-6	F	U	T		C	G,T	58	56	2	T	B	1972	N		6,870	1.93 1.71 2.73 1.78	5-22-72 5- 3-73 5-15-73 8- 2-73		
3S/29E-27L2	USGS[1] LV-37	F	U	T		C	T	39	36	2	P	B	1973	N		6,870	0.38 1.21	5-16-73 8- 2-73		
3S/29E-27L3	USGS[1] LV-38	F	U	T			T	19	16	2	P	B	1973	N		6,870	0.90 3.28	5-16-73 8- 2-73		
3S/29E-27L4	USGS[1] LV-39	F	U	T				5	2	2	P	B	1973	N		6,870	2.58 3.61	5-16-73 8- 2-73		

See footnotes at end of table.

State well number	Owner or user	Ownership	Use of water	Use of well	Well data	Chemical analyses	Log data	Depth of well (feet below lsd)	Depth cased (feet below lsd)	Diameter (inches)	Well finish	Method drilled	Year drilled	Lift type	Power	Altitude of lsd (feet)	Water level (feet below lsd)	Date measured	Yield of well: Gallons per minute	Yield of well: Drawdown (feet)
3S/29E-29K2	USGS[1] LV-17	F	U	Z			G	0				B	1972			6,970		6- 2-72		
3S/29E-29N1	USGS[1] LV-18	F	U	T		C	G,T	69	67	2	T	B	1972	N		6,990	19.3 19.03 17.32 17.94 18.04	6- 2-72 10- 9-72 5-24-73 8-10-73 9- 7-73		
3S/29E-29R1	USGS[1] LV-45	F	U	T			G,T	96	96	2	Z	B	1973	N		6,970		5-25-73		
3S/29E-31G2		P	U	U				2		36	0	D		N		7,000	1.02	5- 9-72		
3S/29E-31G3		P	U	U				2		36	0	D		N		7,000	0.93	5- 9-72		
3S/29E-31R1	USGS[1] LV-16	F	U	T		C	G,T	97	95	2	T	B	1972	N		6,990	41.1 61.16 60.91 60.46	6- 1-72 10- 9-72 5-22-73 8-10-73		
3S/29E-32A1	USGS[1] LV-24	F	U	T			G,T	13	13	2	Z	B	1972	N		6,974	dry	6- 8-72		
3S/29E-33K1	USGS[1] LV-29	F	U	T		C	G,T	35	33	2	T	B	1972	N		6,975	6.75 6.77	5-11-73 8- 2-73		
3S/29E-36K1	USGS[1] LV-11	F	U	T			G,T	75	73	2	T	B	1972	N		6,820	51.5 51.09 51.11 50.98 51.02	6-14-72 7-25-72 10-9-72 5-11-73 8- 9-73		
3S/30E-18K1	USGS[1] LV-20	F	U	Z			G	0				B	1972			7,005	dry	6- 6-72		
3S/30E-19M1	USGS[1] LV-28	F	U	T		C	G,T	87	85	2	T	B	1972	N		6,950	69.35 68.50	10-19-72 8- 9-73		
4S/27E-4B1[2]	Mammoth County Water District	W	P	W			D	420	356	2		P	H	1969	N	8,260	flow	10-10-69	75	
4S/28E-1F1	USGS[1] LV-19	F	U	T			G,T	98	96	2	T	B	1972	N		7,090	39.2 36.78 36.25	6- 7-72 10- 4-72 5-24-73		
4S/28E-1L1	Mammoth County Airport	C	C	W		C		70		10	P	C		S	T	7,108		5-11-72		
4S/28E-3J1	Sierra Materials	P	C	W		C				6	P	C		J	T	7,100	[3]18.17	5-15-72		
4S/28E-3J2	Sierra Materials	P	C	W				28	15	8	P	H	1962	T	T	7,100	15	5-15-72		
4S/28E-3R1	USGS[1] LV-22	F	U	Z			G	0				B	1972			7,145		6- 6-72		
4S/28E-4P1	USGS[1] LV-1	F	U	Z			G	0				B	1972			7,195		5-16-72		
4S/28E-4P2	USGS[1] LV-2	F	U	T			G,T	43	41	2	T	B	1972	N		7,195	42.65 38.2	5-17-72 8- 4-73		
4S/28E-6R1	USGS[1] LV-26	F	U	T			G,T	30	30	2	Z	B	1972	N		7,410	dry	6- 9-72		
4S/28E-12K1	Bureau of Sport Fisheries	F	T	W		C	D	75	34	6	P	H	1959	S	T	7,095	30.8	9-16-59		
4S/28E-14R1	Convict Cr. Resort	P	C	W		C	D	40	25	6	P	C	1957			7,580	7	4-10-57	70	6
4S/29E-3B1	USGS[1] LV- 5	F	U	T			G,T	97	95	2	T	B	1972	N		6,840	23.4 23.33 22.55 23.27	5-23-72 10-4 -72 5- 3-73 8- 2-73		

See footnotes at end of table.

State well number	Owner or user	Ownership	Use of water	Use of well	Well data	Chemical analyses	Log data	Depth of well (feet below lsd)	Depth cased (feet below lsd)	Diameter (inches)	Well finish	Method drilled	Year drilled	Lift type	Power	Altitude of lsd (feet)	Water level (feet below lsd)	Date measured	Yield of well: Gallons per minute	Yield of well: Drawdown (feet)
4S/29E-3C1	USGS[1] LV-23	F	U	T			G,T	57	23	2	P	B	1972	N		6,850	23.84	8- 2-73		
4S/29E-4J1	USGS[1] LV-33	F	U	Z			G	0				B	1973			6,855		5- 1-73		
4S/29E-4J2	USGS[1] LV-34	F	U	T		C	T	96	94	2	T	B	1973	N		6,855	9 8.55 8.46	5- 1-73 5-17-73 8- 2-73		
4S/29E-5B1	USGS[1] LV- 3	F	U	T		C	G,T	97	95	2	T	B	1972	N		6,918	44.69 44.49 45.30 45.31 44.79	5-17-72 10- 5-72 5-11-73 5-17-73 8- 2-73		
4S/29E-5B2	USGS[1] LV-35	F	U	T				75	73	2	T	B	1973	N		6,918	46.09 46.52	5-17-73 8- 2-73		
4S/29E-5B3	USGS[1] LV-36	F	U	T				54	52	2	T	B	1973	N		6,918	44.89 44.69	5-17-73 8- 2-73		
4S/29E-7D1	USGS[1] LV-4	F	U	T			G,T	60	58	2	T	B	1972	N		7,038	7.27 3.49 6.19 2.34	5-10-72 10- 4-72 5-15-73 8-19-73		
4S/29E-8C1	USGS[1] LV-32	F	U	T		C	G	23	21	2	T	B	1972	N		6,915	17.85 8.51 8.51	10-21-72 5-24-73 8-10-73		
4S/29E-17D1	USGS[1] LV-43	F	U	T			G	52	50	2	T	B	1973	N		6,900				
4S/29E-21L1	McGee Cr. Lodge	P	H	W				51		6	P	C		S	T	7,000	41.21	5-18-72		
4S/29E-24N1	Los Angeles Dept. Water & Power	M	R	W			D	90	44	8	P	C	1959	S	T	6,840	38.9	8-28-59		

See footnotes at end of table.

State spring number	Owner or user or spring name	Ownership	Use of water	Use of spring	Chemical analyses	Temperature °C	Field Conductivity (mmhos/cm)	Altitude of lsd (feet)	Date measured	Yield of spring (gal/min)
2S/27E-13JS1	Alpers Canyon spring	F	U	U		10	80	7,415	5-15-72	[4]3
2S/27E-25AS1	Big Springs	F	U	U	C	11	160	7,280	5-15-72	
2S/28E-18AS1	Clark Canyon spring	F	U	U		9	70	7,350	5-15-72	[4]5
2S/28E-18QS1	U.S. Forest Service	F	U	U		9.5	70	7,240	5-15-72	12
2S/28E-20RS1		P	U	U	C	12	220	7,040	5-15-72	45
2S/28E-24QS1		P	U	U		12.5	250	6,950	5-16-72	
2S/28E-25JS1		P	U	U		8.5	220	6,915	5-16-72	
3S/28E-13ES1	Little Hot Creek spring	F	U	U	C	82	1,910	7,010	5-15-72	[4]90
3S/28E-13ES2	do.	F	U	U		73		7,010	5-15-72	[4]90
3S/28E-13ES3	do.	F	U	U	C	79	1,950	7,010	5-15-72	[4]270
3S/28E-13ES4	do.	F	U	U		68		7,010	5-15-72	[4]180
3S/28E-15PS2	U.S. Forest Service	F	S	W		8	70	7,200	5- 8-72	2.4
3S/28E-25AS1	Hot Creek spring	F	R	W	C	80		7,030	5-25-72	[4]5
3S/28E-25AS2	do.	F	R	W		46		7,030	5-25-72	[4]5
3S/28E-25AS3	do.	F	R	W				7,030	5-25-72	([5])
3S/28E-25HS1	do.	F	R	W		61		7,080	5-25-72	[4]5
3S/28E-25HS2	do.	F	R	W		67		7,050	5-25-72	[4]5
3S/28E-25HS3	do.	F	R	W		63		7,040	5-25-72	
3S/28E-25HS4	do.	F	R	W		64		7,040	5-25-72	[4]2
3S/28E-25HS5	do.	F	R	W	C	93	1,500	7,040	5-24-72	[4]8
3S/28E-25HS6	Main swimming hole	F	R	W				7,040	5-24-72	([5])
3S/28E-25HS7	Hot Creek spring	F	R	W				7,035	5-25-72	5
3S/28E-25HS8	do.	F	R	W		76		7,035	5-25-72	[4]9

See footnotes at end of table.

SPRINGS

State spring number	Owner or user or spring name	Ownership	Use of water	Use of spring	Chemical analyses	Temperature °C	Field Conductivity (mmhos/cm)	Altitude of lsd (feet)	Date measured	Yield of spring (gal/min)
3S/28E-25HS9	Hot Creek spring	F	R	W				7,050	5-25-72	(5)
3S/28E-25KS1	do.	F	R	W		77		6,980	5-24-72	4 4
3S/28E-25KS2	do.	F	R	W		61		6,985	5-25-72	4 9
3S/28E-25KS3	do.	F	R	W		68		6,990	5-24-72	4 3
3S/28E-30QS1	LADWP[6]	M	U	U		22	1,000	7,310	6-14-72	(7)
3S/28E-32ES1	Casa Diablo Hot springs	P	U	U		81.9		7,285	6-14-72	4 10
3S/28E-32ES2	Casa Diablo Geyser	P	U	U				7,290	6-14-72	
3S/28E-32ES3		P	U	U	C	93	>8,000	7,300	10- 5-72	(7)
3S/28E-33PS1	Chance Spring	C	U	U	C	22.5	470	7,175	5-15-72	
3S/28E-33PS2		C	U	U				7,175	5-15-72	
3S/28E-33PS3		C	U	U				7,175	5-15-72	
3S/28E-34RS2	Calif. Dept. of Fish and Game	S	Z	W		17	260	7,080	5-23-72	(9)
3S/28E-34RS3	do.	S	Z	W	C	17	260	7,080	5-23-72	4 20
3S/28E-34RS4	do.	S	Z	W		17	220	7,080	5-23-72	4 5
3S/28E-35ES1	Casa Diablo Hot Pool	M	U	U	C	68	1,800	7,025	5-23-72	(7)
3S/28E-35JS1	Hot Creek Ranch	P	H	W	C	11	170	7,040	5-24-72	4 200
3S/28E-35KS1	Calif. Dept. of Fish and Game	S	Z	W	C	12	170	7,078	5-15-72	1,100
3S/28E-35NS1	do.	S	Z	W	C	14.5	235	7,073	5-15-72	2,200
3S/28E-35NS2	do.	S	Z	W	C	15	225	7,075	5-15-72	2,500
3S/28E-35PS1	do.	S	Z	W	C	12.5	210	7,073	5-15-72	4 700
3S/28E-35QS1	do.	S	Z	W	C	13.5	190	7,070	5-15-72	2,500
3S/28E-36MS1	Hot Creek Ranch	P	H	W	C	11		7,040	5-24-72	4 5

See footnotes at end of table.

SPRINGS

State spring number	Owner or user or spring name	Ownership	Use of water	Use of spring	Chemical analyses	Temperature °C	Field Conductivity (mmhos/cm)	Altitude of lsd (feet)	Date measured	Yield of spring (gal/min)
3S/29E-1MS1	BLM[8]	F	U	U				6,915	5-10-72	(9)
3S/29E-2BS1		P	U	U				6,925	5-10-72	(9)
3S/29E-2HS1		P	U	U				6,925	5-10-72	(9)
3S/29E-2HS2		P	U	U		24	100	6,925	5-10-72	42
3S/29E-7BS1	BLM[8]	F	U	U		20		6,940	5-10-72	(9)
3S/29E-10JS1	BLM[8]	F	U	U		15	650	6,830	5-10-72	42
3S/29E-10JS2	BLM[8]	F	U	U		14	755	6,830	5-10-72	42
3S/29E-17KS1	LADWP[6]	M	U	U				6,915	6-28-72	(9)
3S/29E-17RS1	LADWP[6]	M	S	W	C	39.5	2,050	6,900	6-28-72	440
3S/29E-17RS2	LADWP[6]	M	S	W				6,900	6-28-72	
3S/29E-17RS3	LADWP[6]	M	S	W				6,900	6-28-72	
3S/29E-17RS4	LADWP[6]	M	U	U	C	18	1,950	6,920	6-28-72	2.3
3S/29E-20HS1	LADWP[6]	M	U	U		51.5		6,910	6-28-72	(7)
3S/29E-20NS1	The Tub	F	R	W	C	66	1,880	6,945	5-21-73	4.6
3S/29E-20NS2	BLM[8]	F	U	U		63		6,960	10-23-72	2.5
3S/29E-20NS3	BLM[8]	F	U	U		55.8		6,960	10-23-72	1
3S/29E-20NS4	BLM[8]	F	U	U		58	2,100	6,950	5- 7-73	20
3S/29E-21ES1	LADWP[6]	M	U	U				6,880	6-28-72	(9)
3S/29E-21FS1	LADWP[6]	M	U	U		46.5		6,880	6-28-72	
3S/29E-21FS2	LADWP[6]	M	U	U		41		6,880	6-28-72	
3S/29E-21LS1	BLM[8]	F	U	U	C	53	1,780	6,880	5- 9-72	42
3S/29E-21PS1	BLM[8]	F	U	U	C	53	1,750	6,880	1-12-73	27
3S/29E-21PS2	BLM[8]	F	U	U		48.8		6,880	5- 9-72	46

See footnotes at end of table.

SPRINGS

State spring number	Owner or user or spring name	Ownership	Use of water	Use of spring	Chemical analyses	Temperature °C	Field Conductivity (mmhos/cm)	Altitude of lsd (feet)	Date measured	Yield of spring (gal/min)
3S/29E-21QS1	BLM[8]	F	U	U		41		6,870	5-10-72	[4]5
3S/29E-23FS1	LADWP[6]	M	U	U		14	850	6,815	5-31-72	[4]2
3S/29E-27ES1	BLM[8]	F	U	U		40.5	1,700	6,860	5-10-72	
3S/29E-27ES2	BLM[8]	F	U	U		38		6,860	5-10-72	[4]5
3S/29E-27ES3	BLM[8]	F	U	U		31	1,000	6,855	5-10-72	[4]2
3S/29E-27ES4	BLM[8]	F	U	U		34.5	1,900	6,855	5-10-72	[4]5
3S/29E-27ES5	BLM[8]	F	U	U		25	2,000	6,855	5-10-72	[4]5
3S/29E-27FS1	BLM[8]	F	U	U		34	1,850	6,840	5-10-72	[4]5
3S/29E-27FS2	BLM[8]	F	U	U		33	1,750	6,840	5-10-72	[4]3
3S/29E-27GS1	LADWP[6]	M	U	U		35	1,800	6,840	5-10-72	[4]5
3S/29E-27GS2	LADWP[6]	M	U	U		32	1,500	6,820	5-10-72	[4]5
3S/29E-28BS1	BLM[8]	F	U	U		21	850	6,840	5- 9-72	[4]3
3S/29E-28BS2	BLM[8]	F	U	U		24		6,840	5- 9-72	[4]4
3S/29E-28BS3	BLM[8]	F	U	U		18	1,800	6,840	5- 9-72	[4]2
3S/29E-28BS4	BLM[8]	F	U	U		31	1,800	6,880	5- 9-72	[4]5
3S/29E-28BS5	BLM[8]	F	U	U		37	1,900	6,870	5- 9-72	[4]5
3S/29E-28HS1	BLM[8]	F	U	U	C	49	1,900	6,860	5-10-72	[4]50
3S/29E-28HS2	BLM[8]	F	U	U		44.2	1,800	6,860	5-10-72	[4]5
3S/29E-28HS3	BLM[8]	F	U	U		45.5	1,300	6,860	5-10-72	[4]15
3S/29E-29CS1	LADWP[6]	M	U	U	C	75	1,750		7-28-73	([7])
3S/29E-29CS2	LADWP[6]	M	U	U	C	52.5	1,850		7-28-73	([7])
3S/29E-29DS1	BLM[8]	F	U	U	C	55	1,650	6,980	10-23-72	([7])
3S/29E-29FS1	BLM[8]	F	U	U	C	30	1,350	6,920	7-28-73	6

See footnotes at end of table.

SPRINGS

State spring number	Owner or user or spring name	Ownership	Use of water	Use of spring	Chemical analyses	Temperature °C	Field Conductivity (mmhos/cm)	Altitude of lsd (feet)	Date measured	Yield of spring (gal/min)
3S/29E-29FS2	BLM[8]	F	U	U		25	1,400	6,920	5- 9-72	(9)
3S/29E-29KS1	BLM[8]	F	U	U				6,950	10- 9-72	(9)
3S/29E-31AS1	BLM[8]	F	U	U	C	52	1,500	7,005	5- 9-72	49
3S/29E-31AS2	BLM[8]	F	U	U		47	1,600	7,005	5- 9-72	43
3S/29E-31AS3	BLM[8]	F	U	U		52		7,005	5- 9-72	49
3S/29E-31AS4	BLM[8]	F	U	U		53.8		7,005	10- 7-72	
3S/29E-31AS5	BLM[8]	F	U	U		46.1		6,995	5- 9-72	43
3S/29E-31AS6	BLM[8]	F	U	U		30.0		6,995	5- 9-72	(9)
3S/29E-31GS1	BLM[8]	F	U	U				7,000	5- 9-72	(10)
3S/29E-34KS1	LADWP[6]	M	U	U	C	40.0	1,800	6,860	5-11-72	415
3S/29E-34QS1	LADWP[6]	M	U	U		20.5	1,550	6,820	5-11-72	43
3S/29E-34QS2	LADWP[6]	M	U	U		21	1,550	6,820	5-11-72	43
3S/29E-34RS1	LADWP[6]	M	U	U				6,800	5-12-72	(9)
3S/29E-36QS1	LADWP[6]	M	U	U	C	29.5	385	6,820	5- 8-72	23
3S/29E-36QS2	LADWP[6]	M	U	U				6,847	5- 8-72	(9)
3S/30E-22BS1	Watterson Troughs	F	U	U	C	12	140	7,800	5-11-73	12
4S/28E-9ES1	U.S. Forest Service	F	U	U		12	120	7,200	5-12-72	40
4S/28E-9FS1	do.	F	U	U	C	11.5	120	7,195	5-12-72	465
4S/29E-1BS1	LADWP[6]	M	U	U	C	22	300	6,810	5- 8-72	41,100
4S/29E-3ES1	LADWP[6]	M	U	U				6,835	5-12-72	(7)
4S/29E-6HS1	Whitmore Hot Springs	P	R	W	C	34.5	680	6,980	5-17-72	4200
4S/29E-6HS2	do.	P	U	U		32.5	650	6,980	5-17-72	4200
4S/29E-6HS3	do.	P	U	U		27	440	6,980	5-17-72	45

See footnotes at end of table.

SPRINGS

State spring number	Owner or user or spring name	Ownership	Use of water	Use of spring	Chemical analyses	Temperature °C	Field Conductivity (mmhos/cm)	Altitude of lsd (feet)	Date measured	Yield of spring (gal/min)
4S/29E-6HS4	Whitmore Hot Springs	P	U	U		35.0	925	6,980	5-17-72	[4]9
4S/29E-6QS1	LADWP[6]	M	U	U	C	16.0	250	6,970	5-17-72	[4]5
4S/29E-18AS1	U.S. Forest Service	F	H	W	C	22.5	175	7,170	5-17-72	[4]90
4S/29E-36HS1		P	U	U				6,800	5-22-72	([9])
4S/29E-36HS2		P	U	U		14	60	6,800	5-22-72	([9])
4S/29E-36JS1	LADWP[6]	M	U	U		9.5	60	7,100	5-22-72	[4]35
4S/29E-36LS1	Oja Spring	P	H	W	C	9	90	7,480	5-18-72	[4]200
4S/29E-36RS1	LADWP[6]	M	U	U		7.5	80	7,250	5-22-72	[4]15
4S/29E-36RS2	LADWP[6]	M	U	U		6.5	70	7,250	5-22-72	[4]25
4S/29E-36RS3	LADWP[6]	M	U	U		7.5	70	7,320	5-22-72	[4]125
4S/30E-29PS1		P	H	W		13.5	60	6,920	5-22-72	[4]450
4S/30E-31GS1		P	U	U		17		7,000	5-22-72	[4]2
4S/30E-32DS1		P	U	U		16	62	6,950	5-22-72	[4]9
4S/30E-32DS2		P	U	U				6,950	5-22-72	[4]5

[1]U.S. Geological Survey.
[2]Horizontal well; depths are lateral distances.
[3]Water level measured while well was pumping.
[4]Estimated.
[5]Not measured--spring opening in creek bed.
[6]LADWP, Los Angeles Department of Water and Power.
[7]Pond or pool, no visible flow.
[8]BLM, U.S. Bureau of Land Management.
[9]Seep and large amount of grass.
[10]No flow.

TABLE 2.—*Chemical analyses of water*

Dissolved solids: Values indicate the residue on evaporation at 180°C, except those preceded by the letter "a," which have been calculated (sum of determined constituents).

Laboratory: DWR, California Department of Water Resources; LADWP, Los Angeles Department of Water and Power; GS SLC, U.S. Geological Survey, Salt Lake City Lab.; GS MP, U.S. Geological Survey, Menlo Park Lab.; USAC, U.S. Agricultural Consultants, Lein Lab.

WELLS

Well number	Date of collection	Depth of well (feet)	Water temperature (°C)	Results in milligrams per liter, except for iron, boron, and arsenic which are in micrograms per liter																Specific conductance (micromhos at 25°C)	pH	Laboratory
				Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids	Hardness as $CaCO_3$	Noncarbonate hardness as $CaCO_3$	Arsenic			
U.S. Public Health Service drinking-water standards (1962)					300							250	250	1.5	45		500						
2S/28E-28R1	6-25-60	--	--	47		28	5	13	2	137	0	1	2	0.3	4.3	30	181	91		--	233	7.6	DWR
2S/28E-29D1	6-13-66	42	12.8	--		10	4	22	5	95	0	4	6	.5	.3	310	150	42		0	186	7.7	DWR
2S/29E-31P1	6-25-60	--		64		10	3	26	5.5	92	0	12	5	1.2	4.3	120	157	38		--	194	7.7	DWR
	6-13-66	--		--		11	3	25	5	95	0	14	3	.6	1.3	80	165	40		200	206	7.0	DWR
3S/27E-31C1	6-22-66	110	3.9	--		3	2	8	4	46	--	0	0	.1	.0	0	55	16		0	79	5.9	DWR
3S/28E-15P1	6-20-66	14	13.3	--		3	0	9	5	34	0	5	1	.3	0	0	47	8		0	696	7.2	DWR
3S/28E-30R1	9-10-73	57	15.0	63	22,000	26	10	9	3.5	154	0	8.4	17	1.0	.33	610	a238	110		190	273	6.7	GS SLC
3S/28E-32E4	6-20-66	22	53.3	--		51	0	360	38	549	0	120	258	11.0	.8	11,000	1,380	127		1,850	1,890	6.8	DWR
3S/28E-32E5		630		250				380	47			61	276									8.86	McNitt (1963)
	3-14-63	630	54.4			11	2	420	34	527	0	140	266	11.0	1.0	14,000	1,390	36		3,500	1,970	7.1	Unknown
	3-26-63	630				6	1	420	35	476	0	139	274	10.0	1.0	12,000	1,370	19		2,000	1,940	7.6	DWR
	10-21-63	630				12	1	410	32	458	0	132	288	20.0	0	13,400	1,450	34		1,060	1,740	7.3	USAC
	11-26-63	630				6	1	405	30	459	0	134	291	5.0	0	12,900	1,400	19		820	1,800	7.8	USAC
3S/28E-32E6		810		256				375	45			62	276									8.61	McNitt (1963)
	10-20-60	810		48		3	0	408	9	166	90	147	301	14.0	0	5,000					2,010	9.2	Unknown
3S/28E-32E7	8-31-60	570		--		0	1	415	44	423	37	128	293	13.0	0	--	1,490	4				8.9	Unknown
	9-27-60	570		223		1.6	0	400	36	232	120	130	293	13.0	6.2	13,000	1,410	4		--	1,940	9.2	GS MP
3S/28E-32E8		513		200		4		308	32			96	227	20		11,000	1,500	8		200		6.5	McNitt (1963)

Well number	Date	Depth	°C	SiO_2	Fe	Ca	Mg	Na	K	HCO_3	CO_3	SO_4	Cl	F	NO_3	B	Dissolved solids	Hardness	Noncarbonate	Arsenic	Spec. cond.	pH	Lab.
3S/28E-32E9	10-20-60	405		96		4	0	420	38	241	108	140	283	14.0	0	5,000	1,420	10		--	1,970	9.1	Unknown
	7-24-63	405		98		1	2	475	30	340	139	96	310	21.0	1.2	13,000	1,550	11		1,600	--	9.3	Unknown
	5-19-72	405		170		.9	.1	390	45	450	30	130	280	12	<.05	15,000	1,420	3		2,200	1,920	9.25	GS MP
3S/28E-32G1	7-23-63	670		13		1	0	165	50	328	55	180	26	2.1	1.2	13,000	1,280	3		--	--	8.8	Unknown
	9-10-63	670		196		0	1	430	48	330	128	170	330	11.0	3.8	1,500	1,570	4		3,000	--	9.3	Unknown
3S/28E-33P4	3-26-63	71	32.8	100		13	9	42	8	117	0	16	37	.4	.5	1,280	265	70		50	350	6.7	DWR
	4- 2-63	--	31.7	9		15	8	43	7	116	0	17	38	.4	0	1,380	284	71		--	330	6.5	USAC
	5-21-63	--	31.7	98		9	12	43	7	122	0	18	38	.4	.5	1,400	280	72		10	357	6.7	DWR
	6-25-63	--	25	75		8	5	32	6	90	0	12	21	.4	1.2	960	190	41		20	235	6.6	DWR
	8- 8-63	--		68		9	5	26	6	92	--	12	28	.1	3.8	700	224	43		--	135	7.1	Unknown
	9-15-63	--		54		13	5	33	6	105	0	8	25	.2	0	1,060	228	53		--	262	7.8	USAC
	10-21-63	--		60		20	4	40	7	117	0	17	33	.2	0	1,660	262	67		10	320	6.5	USAC
	11- 4-63	--		61		15	8	41	7	120	0	16	36	.2	0	1,430	256	71		10	350	7.3	Unknown
	12-10-63	--		65		17	8	44	8	124	0	19	37	.2	0	1,480	276	76		30	360	7.3	Unknown
	1-13-64	--		71		16	7	45	7	128	0	16	40	.2	0	1,530	278	69		--	330	7.3	Unknown
	2- 3-64	--		72		16	6	46	7	121	0	23	37	.2	0	1,450	258	65		--	348	6.8	Unknown
	3-29-64	--		63		14	7	40	6	117	0	18	34	.1	0	1,440	236	64		--	315	7.0	USAC
	4-25-64	--		62		31	9	40	8	175	0	19	36	.1	0	1,440	300	115		10	400	7.1	USAC
	5-11-64	--		--		27	8	41	7	153	0	19	39	.2	0	1,280	256	101		0	350	8.0	USAC
	5-13-64	--		--		13	9	58	7	173	0	17	33	.4	0	1,460	310	70		0	409	7.5	DWR
3S/28E-34R1	3-26-63	47	17.8	60		10	9	25	5	120	0	5	6	.4	1.0	320	160	62		40	227	7.6	DWR
	4- 2-63			45		11	9	25	5	122	0	13	5	.4	0	280	184	65		80	230	7.3	Unknown
	5-21-63		16.7	60		13	8	28	4	122	0	10	10	.3	.5	400	180	66		60	247	7.5	DWR
	6-25-63		16.1	60		8	10	26	5	115	0	12	12	.3	1.9	460	165	61		40	240	7.1	DWR
	9-16-63			48		12	5	23	5	111	0	10	4	.2	0	340	166	51		40	234	7.0	USAC
	10-21-63			46		13	5	23	5	110	0	10	5	.2	0	310	166	53		50	205	7.7	USAC
	11-19-63			--		10	8	23	5	117	0	9	4	.2	0	--	166	58		30	220	7.8	Unknown
	12-10-63			45		11	7	23	5	118	0	7	4	.2	0	260	170	57		30	215	7.2	Unknown
	1-13-64			47		12	5	23	5	116	0	6	4	.4	0	270	140	51		--	--	7.2	Unknown
	2- 3-64			47		20	4	24	5	129	0	8	5	.2	0	330	162	67		--	--	7.6	Unknown
	3-29-64			43		12	7	23	4	126	0	7	5	.1	0	330	138	59		--	224	7.9	USAC
	5-11-64			--		13	7	24	5	111	0	12	11	.2	0	330	144	62		30	225	7.7	USAC
	6-20-66		15.6	--		10	8	22	5	110	--	7	7	.3	.7	280	155	58		50	216	7.2	DWR
3S/29E-4J1	10- 3-73	99	10.0	54		17	8	230	10	188	0	73	260	.9	.55	740	a749	75		95	1,320	7.5	GS SLC
3S/29E-13C1	6-21-66	80	9.4	--		4	0	39	2	90	7	11	3	.6	0	240	155	10		70	194	8.6	DWR
	5-23-72		10	64		5.3	.2	38	1.3	111	2.8	3.7	3.0	.57	.05		166	14		20	191	8.82	GS MP

WELLS

Well number	Date	Depth	°C	SiO_2	Fe	Ca	Mg	Na	K	HCO_3	CO_3	SO_4	Cl	F	NO_3	B	Dissolved solids	Hardness	Non-carbonate	Arsenic	Spec. cond.	pH	Lab.
3S/29E-16J1	6-11-73	15	11	62	700	28	13	140	10	441	0	27	47	2.4	0	3,100	a551	120		220	849	8.2	GS SLC
3S/29E-17K2	10- 4-73	41	13.2	42	2,500	34	2.9	130	14	387	0	26	35	2.4	.06	1,800	a482	97		52	722	7.6	GS SLC
3S/29E-18B1	10- 2-73	6	16.3	43	1,800	8	2.5	360	16	524	144	16	79	5.5	.03	5,300	a940	30		79	1,360	8.9	GS SLC
3S/29E-19R1	10- 1-73	22	39.0	90	480	17	.7	430	26	850	0	46	180	5.8	.02	8,900	a1,220	45		34	1,820	7.7	GS SLC
3S/29E-21F3	5-15-73		36	150	10	34	1.2	430	32	830	0	65	150	5.3		6,700	a1,900	90		260	2,940	7.4	GS SLC
3S/29E-27L1	6-11-73	58	49	180	410	24	.9	380	36	774	0	67	170	5.5	.10	3,400	a1,250	64		410	1,790	8.2	GS SLC
3S/29E-27L2	6-11-73	39	46	170	3,400	24	.8	380	36	771	0	67	170	5.7	.04	3,400	a1,240	63		270	1,780	8.1	GS SLC
3S/29E-29N1	9- 9-73	28.5	69	67	3,300	15	.7	260	16	412	0	58	150	7.4	.16	7,000	a788	40		130	1,200	7.5	GS SLC
3S/29E-31R1	9-12-73	97	32.5	58	310	6.9	.6	160	13	276	0	38	85	3.0	.24	3,800	a506	20		270	759	7.6	GS SLC
3S/29E-33K1	10- 1-73	35	31.0	67	19,000	20	2.2	250	24	510	0	4.7	150	3.8	.01	6,200	a795	59		17	1,280	6.9	GS SLC
3S/30E-19M1	9-12-73	87	14.2	35	2,900	23	3.6	26	6.1	154	0	12	6.0	.7	.18	110	a192	72		29	254	7.5	GS SLC
4S/28E-1L1	6-15-66	70		--		23	4	11	2	104	--	9	3	.3	1.0	60	135	74		0	194	8.1	DWR
4S/28E-3J1	6-20-66		14.4	--		11	6	21	5	110	0	9	4	.4	.5	160	150	52		90	204	7.4	DWR
4S/28E-12K1	6-21-66	75	--	--		24	1	1	1	69	--	8	1	.1	.0	0	70	64		0	134	7.3	DWR
4S/28E-14R1	6-24-66	40	9.4	--		38	1	3	2	106	--	13	2	.1	2.2	0	140	99		0	206	7.6	DWR
4S/29E-4J2	9-12-73	96	38	100	1,100	45	2.6	230	6.4	547	0	31	100	3.3	.06	5,000	a794	120		130	1,190	7.3	GS SLC
4S/29E-5B1	9-11-73	97	43.2	140	3,100	27	1.1	370	4.3	689	0	66	170	4.8	.03	8,100	a1,130	72		430	1,670	7.1	GS SLC
4S/29E-8C1	6-12-73	23	11	11	120	25	1.1	1.5	1.4	73	0	11	1.0	.1	0	0	a88	67		1	124	7.9	GS SLC

Spring number	Date	Depth	°C	SiO_2	Fe	Ca	Mg	Na	K	HCO_3	CO_3	SO_4	Cl	F	NO_3	B	Dissolved solids	Hardness	Noncarbonate	Arsenic	Spec. cond.	pH	Lab
2S/27E-25AS1	6-25-60		--	46		6	5	23	4	76	0	3	11	0.5	3.7	150	112	36			151	7.3	DWR
	10-10-61		--	46		8	5	23	3	85	0	5	11	.1	1.4	590	134	41			179	7.4	Unknown
	9-21-66		11.1	--		5	6	24	4	95	--	5	8	.5	0	320	139	37		20	187	7.5	DWR
	5-21-72		11	58		5.1	5.9	23	4.0	90		8.1	5.7	.5	.1		156	37		20	182	6.83	GS MP
	8- 7-73		10	54	40	5.1	5.8	23	4.0	95	0	6.7	7.0	.5	.10	400	a154	37		20	185	7.4	GS SLC
2S/28E-20RS1	6-13-66		11.1	--		11	5	25	5	102	0	7	8	.5	.5	340	150	48		50	211	7.2	DWR
3S/28E-13ES1	6-16-66		82	--		25	0	400	30	727	0	90	204	8.6	.8	9,400	1,240	63		1,100	1,908	7.1	DWR
	1-12-73			79	30	22	.5	437	27			103	197	7.2	.9	9,100	1,650	58		600	2,000	8.27	LADWP
3S/28E-13ES3	5-18-72		79	110	150	50	.6	410	30	735	0	96	200	8.4	.05	10,600	1,260	130		740	1,950	6.51	GS MP
3S/28E-25AS1	5-17-57		93	131		4	0	350	20	497	8	90	200	10.0	0	10,000	1,110	10		1,000	1,620	8.3	Unknown
	5-12-66		88	--		3	1	325	22	481	0	84	190	8.6	1.2	9,200	1,040	12		1,100	1,542	8.2	DWR
3S/28E-25HS5	7-26-73		93	130	40	1.6	.1	360	23	453	30	91	210	8.3	.04	9,400	a1,090	4		1,000	1,630	8.7	GS SLC
3S/28E-32ES3	8- 6-73		93	160	7,400	19	41	27	17	0	0	1,500	20	.4	.06	50	a1,820	220		5	--	3.7	GS SLC
3S/28E-33PS1	3-12-63		--	90		15	9	48	7	142	0	16	39	.4	.3	1,400	300	75		--	398	7.0	DWR
	3-26-63		17	54		23	7	50	8	117	0	28	55	.4	1.5	1,850	255	87		60	420	7.4	DWR
	4- 2-63		17	42		28	4	52	7	115	0	29	53	.2	0	1,840	282	87		120	410	7.0	USAC
	5-21-63		18	57		16	10	51	8	124	0	27	46	.3	.5	1,700	270	81		140	407	7.1	DWR
	7- 2-63		--	43		10	4	18	5	83	--	18	10	.5	2	580	228	42		30	160	7.3	DWR
	8- 8-63		--	49		10	3	22	5	86	--	13	18	.1	4.0	500	254	38		70	110	7.2	DWR
	1-13-64		--	38		29	3	38	6	111	0	19	45	.2	0	1,600	224	85		30	350	7.6	USAC
	2-18-64		--	39		25	10	43	7	124	0	31	52	.1	0	1,970	278	104		80	390	7.6	USAC
	3-29-64		--	40		25	10	48	7	132	0	28	60	.1	0	2,120	262	104		50	430	8.0	USAC
	4-25-64		--	39		25	9	48	7	131	0	35	54	.1	0	1,860	266	100		10	410	7.1	USAC
	5-11-64		--	--		24	7	51	8	115	0	31	62	.2	0	2,300	298	89		50	400	8.1	USAC
	5-13-64		14	--		18	7	33	6	105	0	21	31	.3	.5	1,460	300	74		60	313	7.5	DWR
3S/28E-34RS3	7-26-73		14.5	56	20	10	8.4	21	4.8	111	0	12	6.5	.3	.28	270	a175	60		50	218	7.3	GS SLC
3S/28E-35ES1	9- 5-54			126		8.0	0	376	23.2	475	0	116	258	5.0	.80	11,100				--	1,820	7.35	GS MP
	12-29-60		--	170		7	1	361	22	409	0	134	245	10.0	1.9	10,400	1,216	22		--	1,710	7.4	Unknown
	6-14-66		74	--		7	2	372	23	451	0	107	264	11.0	.5	11,000	1,225	26		2,000	1,740	8.2	DWR
	5-24-72		60	300	<30	3.3	.1	380	25	466	1	120	250	11	.05	13,000	1,300	9		340	1,800	7.15	GS MP
3S/28E-35JS1	7-26-73		10.5	38	30	15	4.4	11	3.1	84	0	12	2.4	.2	.13	80	a128	56		20	164	7.4	GS SLC
3S/28E-35KS1	4-24-55		12	44		12	5	14	3	88	0	11	2	.1	.2	100	131	51		--	166	7.5	Unknown
	5-14-63		12	27		13	4	16	3	90	0	8	2	.2	1.0	100	130	49		40	168	7.3	Unknown
	7- 8-63		13	25		13	4	16	3	90	0	8	3	.3	1.5	100	130	49		40	174	7.3	Unknown
	11-26-63		--	35		25	4	15	4	123	0	9	3	.2	1.5	170	156	79		40	240	7.4	Unknown
	5-11-64		--	--		14	3	16	3	86	0	10	3	.2	0	130	142	48		30	165	7.5	Unknown
	6-14-66		12	--		12	5	16	4	91	0	8	3	.3	.6	80	120	51		20	173	7.3	DWR
	1-13-73			32	<10	13	3.9	11	2.5	--	--	14	1.8	.2	3.1	100	161	49		20	160	7.66	LADWP

SPRINGS

Spring number	Date	Depth	°C	SiO_2	Fe	Ca	Mg	Na	K	HCO_3	CO_3	SO_4	Cl	F	NO_3	B	Dissolved solids	Hard-ness	Non-car-bon-ate	Ar-senic	Spec. cond.	pH	Lab.
3S/28E-35NS1	4-24-55		17	67		12	10	23	5	130	0	11	7	0.3	0.3	320	188	71		--	243	7.4	DWR
	9-22-60		16	56		15	7	27	--	128	0	11	8	--	.3	--	193	67		--	238	7.7	Unknown
	12-29-60		--	56		15	10	28	6	128	0	5	18	.3	2.5	350	202	79		--	291	7.3	Unknown
	5-14-63		16	12		9	9	25	5	120	0	9	6	.3	1.0	240	170	60		40	227	7.3	DWR
	7- 8-63		16	13		9	8	24	5	112	0	10	6	.3	1.0	280	175	56		50	219	7.3	DWR
	7-11-63		16	13		11	9	25	5	122	0	9	8	.3	1.5	420	185	65		80	241	7.2	DWR
	9-16-63		--	45		14	5	22	4	106	0	12	4	.2	0	290	158	56		50	375	7.3	USAC
	10-21-63		--	46		18	5	24	5	125	0	10	7	.2	0	400	180	66		50	226	7.0	USAC
	11-26-63		--	46		18	6	24	7	126	0	12	5	.4	4.1	300	200	70		70	267	7.1	USAC
	12-31-63		--	46		12	7	24	5	121	0	6	5	.2	0	330	172	59		30	237	7.1	USAC
	1-13-64		--	44		12	5	23	5	116	0	4	2	.2	0	230	152	51		40	207	7.1	USAC
	2-18-64		--	44		12	7	24	5	119	0	9	7	.1	0	420	168	59		50	222	8.0	USAC
	3-29-64		--	44		14	6	25	5	124	0	8	9	.1	0	440	168	60		50	220	8.0	USAC
	4-25-64		--	45		14	7	27	6	126	0	8	9	.1	0	420	176	64		50	245	7.3	USAC
	6-14-66		--	--		10	7	24	5	115	--	8	9	.3	.7	340	170	54		50	214	7.2	DWR
3S/28E-35NS2	4-24-55		17	63		11	9	23	5	128	0	12	5	.3	.2	200	181	65		--	231	7.5	Unknown
	9-22-60		17	61		14	7	27	--	126	0	11	6	--	.3	--	194	64		--	225	7.9	Unknown
	5-14-63		16	11		8	10	24	5	122	0	8	5	.3	1.0	280	185	61		60	223	7.3	DWR
	7- 8-63		16	11		8	8	22	5	107	0	9	5	.3	1.0	240	175	53		--	209	7.3	DWR
	7-11-63		16	13		11	8	24	5	117	0	8	7	.4	1.0	240	170	61		40	222	7.9	DWR
	9-16-63		--	44		15	4	21	6	105	0	12	3	.2	3.6	230	198	54		60	360	7.1	USAC
	10-21-63		--	45		16	3	22	4	108	0	10	4	.2	0	230	150	53		40	230	7.1	USAC
	11- 4-63		--	43		12	6	22	5	114	0	8	3	.2	0	210	162	55		30	210	7.8	USAC
	11-19-63		--	47		12	7	22	5	113	0	10	4	.2	1.0	380	166	59		40	243	7.9	USAC
	12-31-63		--	43		12	6	23	5	115	0	10	3	.2	1.0	240	138	55		30	215	7.2	USAC
	2- 3-64		--	44		12	6	24	5	113	0	6	8	.2	0	250	166	55		--	220	7.4	USAC
	3-10-64		--	44		12	6	23	5	121	0	10	4	.1	0	330	152	55		10	212	7.6	USAC
	4-13-64		--	45		12	7	23	5	123	0	9	4	.1	0	260	150	59		40	225	7.7	USAC
	5-11-64		--	--		12	7	23	5	120	0	11	5	.2	0	240	180	59		--	210	7.7	USAC
	6-14-66		16	--		9	7	22	5	108	0	7	5	.3	.7	170	150	52		50	201	7.2	DWR
3S/28E-35PS1	12-29-60			52		10	7	19	4.7	104	0	6	4	.6	1.9	140	146	55		--	192	7.5	DWR
3S/28E-35QS1	5-14-63		13	17		9	7	20	4	105	0	7	3	.3	1.0	140	150	52		50	194	7.4	DWR
	7- 8-63		16	16		9	8	20	4	107	0	8	4	.3	1.0	140	155	56		50	200	7.3	DWR
	11-26-63		--	40		13	5	20	4	108	0	8	2	.2	.9	170	146	53		60	197	7.4	USAC
	5-11-64		--	--		11	6	21	4	106	0	9	6	.2	0	170	150	52		80	195	7.6	USAC
	6-14-66		12	--		11	6	19	5	101	--	7	4	.3	0	130	135	52		30	187	7.5	DWR
3S/28E-36MS1	1-12-73		--	33	<10	16	4.4	11	2.6	--	--	13	1.8	.2	1.3	90	169	57		10	172	7.94	LADWP
	1-13-73		--	39	30	16	4.7	11	3.4	87	0	13	2.6	.5	.16	100	a134	59		16	170	7.3	GS SLC
3S/29E-17RS1	8- 9-73		37	210	50	21	.5	470	35	974	0	66	190	5.2	.06	7,600	a1,490	55		350	2,040	7.7	GS SLC
3S/29E-17RS4	8- 9-73		17.5	120	20	23	1.4	420	28	876	0	65	160	4.4	.35	6,400	a1,260	63		300	1,840	7.7	GS SLC
3S/29E-20NS1	7-26-73		66	130	30	24	.1	440	19	836	0	81	200	5.4	.04	8,800	a1,320	60		460	1,940	7.5	GS SLC

Spring number	Date	Depth	°C	SiO_2	Fe	Ca	Mg	Na	K	HCO_3	CO_3	SO_4	Cl	F	NO_3	B	Dissolved solids	Hardness	Noncarbonate	Arsenic	Spec. cond.	pH	Lab.
3S/29E-21LS1	6-11-66		53	--		28	0	380	37	790	0	60	160	4.9	0.3	31,000	1,270	70		520	1,780	7.3	DWR
	1-12-73			167	20	25	.5	385	32	--	--	68	145	5.0	2.6	6,500	1,640	64		370	1,800	8.03	LADWP
3S/29E-21PS1	6-22-66		56	--		26	0	380	35	781	0	60	158	4.8	0	31,000	1,240	65		400	1,750	7.0	DWR
	1-12-73			165	20	25	.5	376	32	--	--	69	145	5.2	1.3	6,200	1,630	64		360	1,800	7.90	LADWP
3S/29E-28HS1	5-22-72		49	240	<30	22	.6	400	43	845	0	69	170	4.8	.05	8,800	1,340	57		340	1,900	6.60	GS MP
3S/29E-29CS1	7-28-73		75	170	140	35	.7	390	23	784	0	73	190	6.0	.03	8,900	a1,280	90		490	1,840	7.0	GS SLC
3S/29E-29CS2	7-28-73		52.5	210	50	35	1.2	430	26	853	0	81	200	4.2	.01	8,600	a1,420	92		510	1,940	7.6	GS SLC
3S/29E-29DS1	8- 4-73		55	130	80	25	.4	460	20	859	0	83	200	3.1	.04	8,600	a1,350	64		530	1,940	7.8	GS SLC
3S/29E-29FS1	7-27-73		29	110	30	21	1.1	310	18	544	0	70	150	3.8	.27	6,800	a961	57		680	1,400	7.3	GS SLC
3S/29E-31AS1	5- 7-57			118		18	.5	317	19	497	0	80	172	--	--	8,200	1,190			--	1,960	8.0	GS MP
	6-25-60		--	110		15	1	306	20	482	0	77	181	7.0	4.3	8,000	964	42		--	1,440	7.3	DWR
	5-13-66		56	--		16	1	315	21	498	0	78	180	6.0	0	8,000	960	44		1,180	1,490	8.2	DWR
	5-20-72		58	120	<30	15	.4	310	22	516	1.9	81	170	7.5	.05		1,000	39		840	1,500	7.53	GS MP
3S/29E-34KS1	5-23-72		41	205	450	23	1.2	320	28	695	0	59	150	4.6	<.05	8,100	1,130	62		360	1,630	6.64	GS MP
3S/29E-36QS1	6-11-66		28	--		5	0	83	6	173	5	16	22	1.9	.5	580	270	13		130	403	8.4	DWR
3S/30E-22BS1	1-15-73		12.0	63		11	3.2	14	3.8	63	0	5.1	3.5	.1	2.0	20	a144	41		1	138	8.1	GS SLC
4S/28E-9FS1	6-19-66		12	--		16	0	5	1	46	0	13	1	.2	0	0	65	40		10	118	7.6	DWR
4S/29E-1BS1	1-15-73		20.6	5.8	<10	11	.2	60	3.9	--	--	19	14	1.5	4.9	300	269	28		70	340	8.32	LADWP
4S/29E-6HS1	8-20-41		--	60		16	9	192	--	--	320	46	200	4.0	--	4,600	--	77			948		Unknown
	1- 8-46		--	15		22	2	132	7	--	263	36	71	1.4	0	3,500	a419	63			715		Unknown
	10- 3-52		--	--		--	--	131	8	--	--	--	--	--	--	--	492				774		Unknown
	2-28-56		--	32		22	2	132	10	--	263	48	72	1.6	0	2,450	a451	63			733	7.7	Unknown
	12-12-61		--	94		20	2	130	9	--	250	39	78	2.9	2	3,600	a503	58			772		Unknown
	5-12-66		37	--		21	3	140	9	0	276	41	74	3.2	0	3,700	510	65		460	759	8.2	DWR
4S/29E-6QS1	2-28-56		--	27		32	2	5	1	--	97	24	1	.2	.8	30	a141	88		--	212	8.1	Unknown
	12-12-61		--	35		31	2	5	1	--	99	11	6	0	1.2	100	a141	86		--	221	8.0	Unknown
	5-12-66		--	--		30	2	5	1	0	98	12	2	.2	0	0	130	83		0	191	8.2	DWR
4S/29E-18AS1	3-20-56		--	23		38	2	6	3	110	--	20	5	.1	.6	30	a152	103			227	7.6	Unknown
	12-12-61		--	24		37	2	6	2	107	--	21	5	0	.8	100	a151	101			250	7.8	Unknown
4S/29E-36LS1	6-16-66		10	--		10	1	6	1	46	0	3	1	.2	.5	0	55	29		0	86	7.8	DWR

TABLE 3.--*Temperature measurements in wells*

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 2S/27E-35D1, Project Well No. LV-27					
June 19, 1972	5.0	7.96	June 19, 1972	36.0	8.84
	10.0	8.13		38.0	8.87
	14.0	8.14		40.0	8.89
	16.0	8.41		42.0	8.90
	18.0	8.63		44.0	8.91
	20.0	8.72		46.0	8.94
	22.0	8.74		48.0	8.98
	24.0	8.75		50.0	9.01
	26.0	8.75		52.0	9.05
	28.0	8.75		54.0	9.09
	30.0	8.75		56.0	9.12
	32.0	8.76		58.2	9.16
	34.0	8.79	Aug. 7, 1973	10.0	8.2
				20.0	7.6
State Well No. 2S/28E-29D1					
June 19, 1972	9.0	9.49	June 19, 1972	23.0	9.24
	11.0	9.19		25.0	9.25
	13.0	9.18		27.0	9.26
	15.0	9.18		29.0	9.25
	17.0	9.19		31.0	9.26
	19.0	9.21		33.0	9.26
	21.0	9.23		34.8	9.31
State Well No. 2S/29E-30N2					
June 20, 1972	12.0	7.74	June 20, 1972	29.0	8.67
	17.0	7.95		31.0	9.03
	22.0	8.24		33.0	9.04
	27.0	8.43		35.5	9.13

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/28E-14J1, Project Well No. LV-46					
May 22, 1973	1.0	9.66	May 22, 1973	40.0	15.21
	2.0	9.36		50.0	18.15
	3.0	8.87		60.0	20.28
	4.0	8.59		70.0	22.98
	5.0	8.55		80.0	24.90
	10.0	8.88		90.0	26.79
	20.0	10.49		100.0	28.82
	30.0	13.10		102.7	29.13
State Well No. 3S/28E-30R1, Project Well No. LV-15					
June 16, 1972	5.0	9.41	June 16, 1972	33.0	12.15
	7.0	9.09		35.0	12.33
	9.0	8.95		37.0	12.68
	11.0	9.10		39.0	12.91
	13.0	9.28		41.0	13.03
	15.0	9.47		43.0	13.25
	17.0	9.69		45.0	13.45
	19.0	10.03		47.0	13.66
	21.0	10.42		49.0	13.93
	23.0	10.77		51.0	14.13
	25.0	11.02		53.0	14.31
	27.0	11.36		55.0	14.47
	29.0	11.67		57.1	15.27
	31.0	11.98	Aug. 7, 1973	10.0	9.85
				20.0	10.10
State Well No. 3S/28E-30R2, Project Well No. LV-44					
May 18, 1973	1.0	12.60	May 18, 1973	15.0	8.89
	2.0	9.02		20.0	10.25
	3.0	7.91		25.0	10.96
	4.0	6.72		30.0	12.05
	5.0	7.36		40.0	12.68
	6.0	7.39		50.0	13.53
	7.0	7.46		60.0	14.41
	8.0	7.56		70.0	15.39
	9.0	7.80		75.7	15.80
	10.0	8.10	Aug. 7, 1973	10.0	10.35
				20.0	10.30

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/28E-32E4					
June 22, 1972	6.0	17.86	June 22, 1972	14.0	19.66
	8.0	19.50		16.0	19.76
	10.0	19.44		18.0	19.82
	12.0	19.59		20.0	20.03
				22.0	24.13
State Well No. 3S/29E-4J1, Project Well No. LV-7					
May 25, 1972	10.0	8.21	May 2, 1973	6.0	2.22
	15.0	8.30		7.0	2.25
	20.0	8.52		8.0	2.32
	25.0	8.62		9.0	2.33
	30.0	8.66		10.0	2.36
	35.0	8.67		15.0	2.50
	40.0	8.68		20.0	2.51
	45.0	8.68		25.0	2.88
	50.0	8.69		30.0	3.09
	55.0	8.71		35.0	3.16
	60.0	8.72		40.0	4.49
	65.0	8.73		45.0	4.61
	70.0	8.75		50.0	4.68
	75.0	8.76		55.0	4.73
	80.0	8.78		60.0	4.78
	85.0	8.79		65.0	4.81
	90.0	8.81		70.0	4.79
	92.7	8.81		75.0	4.78
May 2, 1973	1.0	4.44		80.0	4.45
	2.0	2.13		85.0	4.38
	3.0	2.58		90.0	4.40
	4.0	4.28		92.0	4.30
	5.0	2.31	Aug. 9, 1973	10.0	8.37
				20.0	7.87

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-4J2, Project Well No. LV-8					
May 25, 1972	11.9	7.95	Aug. 9, 1973	10.0	8.50
State Well No. 3S/29E-5D1, Project Well No. LV-40					
Aug. 6, 1973	1.0	17.38	Aug. 6, 1973	9.0	9.96
	2.0	16.96		10.0	9.39
	3.0	16.04		15.0	8.12
	4.0	14.92		20.0	8.68
	5.0	13.74		25.0	8.96
	6.0	12.67		30.0	9.22
	7.0	11.58		35.0	9.29
	8.0	10.65		37.7	9.29
State Well No. 3S/29E-7A1, Project Well No. LV-25					
June 16, 1972	11.0	7.57	June 16, 1972	15.0	7.96
	13.0	7.75		16.9	7.66
			Aug. 7, 1973	10.0	7.38
State Well No. 3S/29E-13C2, Project Well No. LV-21					
June 14, 1972	9.0	8.54	June 14, 1972	19.0	8.54
	11.0	8.40		21.2	8.61
	13.0	8.37	Aug. 9, 1973	10.0	9.30
	15.0	8.38		20.0	8.20
State Well No. 3S/29E-16J1, Project Well No. LV-10					
June 8, 1972	4.0	9.09	June 8, 1972	8.0	7.55
	6.0	7.79		10.0	7.52
				13.3	7.43

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-16J1, Project Well No. LV-10--Continued					
May 2, 1973	2.0	0.22	May 2, 1973	8.0	3.04
	3.0	2.29		9.0	3.02
	4.0	2.49		10.0	3.03
	5.0	2.58		11.0	3.06
	6.0	2.59		12.0	3.53
	7.0	2.74	Aug. 9, 1973	10.0	7.65
State Well No. 3S/29E-17K2, Project Well No. LV-41					
May 25, 1973	1.0	13.49	May 25, 1973	20.0	9.87
	2.0	9.95		25.0	10.70
	3.0	8.94		30.0	11.24
	4.0	8.18		35.0	11.66
	5.0	7.59		39.0	12.22
	10.0	7.08	Aug. 9, 1973	10.0	11.49
	15.0	8.90		20.0	10.26
State Well No. 3S/29E-19P1, Project Well No. LV-47					
May 28, 1973	1.0	13.06	May 28, 1973	40.0	13.82
	2.0	11.57		50.0	14.97
	3.0	10.42		60.0	16.09
	4.0	9.65		70.0	17.27
	5.0	9.09		80.0	18.50
	10.0	8.39		90.0	19.67
	20.0	10.27		100.0	20.48
	30.0	12.25		101.5	20.82

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-19R1, Project Well No. LV-42					
Aug. 6, 1973	2.0	29.98	Aug. 6, 1973	8.0	35.43
	3.0	30.24		9.0	35.76
	4.0	30.97		10.0	37.49
	5.0	31.80		15.0	41.47
	6.0	33.17		20.0	45.02
	7.0	34.62		20.6	45.79
State Well No. 3S/29E-23F3, Project Well No. LV-12					
June 14, 1972	6.0	10.17	June 14, 1972	10.0	8.28
	8.0	8.92		11.6	7.80
			Aug. 9, 1973	10.0	9.57
State Well No. 3S/29E-27L1, Project Well No. LV-6					
May 25, 1972	5.0	17.38	May 3, 1973	6.0	7.87
	10.0	19.03		7.0	8.36
	15.0	23.14		8.0	8.82
	20.0	28.60		9.0	9.59
	25.0	33.41		10.0	10.56
	30.0	38.07		15.0	15.03
	35.0	42.09		20.0	19.11
	40.0	45.32		25.0	22.21
	45.0	47.48		30.0	23.95
	50.0	48.68		35.0	40.75
	52.0	48.94		40.0	43.17
	54.0	49.16		45.0	45.90
	56.5	49.26		50.0	46.85
May 3, 1973	2.0	7.15		55.0	46.97
	3.0	7.24		57.0	46.60
	4.0	7.39	Aug. 10, 1973	10.0	22.37
	5.0	7.67		20.0	30.00

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-27L2, Project Well No. LV-37					
June 11, 1973	2.0	17.73	June 11, 1973	10.0	19.26
	3.0	17.31		15.0	23.89
	4.0	17.26		20.0	29.12
	5.0	17.30		25.0	34.24
	6.0	17.34		30.0	38.39
	7.0	17.70		34.6	43.27
	8.0	18.22	Aug. 10, 1973	10.0	22.94
	9.0	18.65		20.0	29.93
State Well No. 3S/29E-27L3, Project Well No. LV-38					
June 11, 1973	3.0	17.06	June 11, 1973	9.0	17.52
	4.0	16.95		10.0	18.72
	5.0	16.94		15.0	21.30
	6.0	17.19		18.3	27.28
	7.0	17.44	Aug. 10, 1973	10.0	22.14
	8.0	-		20.0	27.09
State Well No. 3S/29E-29N1, Project Well No. LV-18					
June 21, 1972	21.0	26.28	June 21, 1972	45.0	30.11
	23.0	27.17		47.0	30.21
	25.0	27.20		49.0	30.36
	27.0	27.66		51.0	30.50
	29.0	28.07		53.0	30.63
	31.0	28.56		55.0	30.80
	33.0	28.87		57.0	30.90
	35.0	29.17		59.0	31.07
	37.0	29.49		61.0	31.18
	39.0	29.72		63.0	31.34
	41.0	29.86		65.0	31.49
	43.0	29.98		67.0	31.58

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-29N1, Project Well No. LV-18--Continued					
June 21, 1972	69.1	31.96	May 3, 1973	20.0	16.01
May 3, 1973	1.0	4.96		25.0	17.59
	2.0	4.94		30.0	18.28
	3.0	5.59		35.0	19.07
	4.0	5.99		40.0	19.14
	5.0	6.18		45.0	19.30
	6.0	6.94		50.0	19.25
	7.0	7.03		55.0	19.43
	8.0	7.38		60.0	20.57
	9.0	8.04		65.0	21.17
	10.0	8.51		66.6	24.64
	15.0	12.59	Aug. 10, 1973	10.0	20.33
				20.0	25.72
State Well No. 3S/29E-29R1, Project Well No. LV-45					
May 25, 1973	1.0	11.76	May 25, 1973	25.0	13.88
	2.0	11.46		30.0	15.16
	3.0	10.71		40.0	16.71
	4.0	10.18		50.0	17.79
	5.0	10.08		60.0	18.68
	10.0	10.24		70.0	19.52
	15.0	11.10		80.0	20.84
	20.0	12.35		90.0	21.95
				96.0	22.78
State Well No. 3S/29E-31R1, Project Well No. LV-16					
June 8, 1972	45.0	31.04	June 8, 1972	94.0	45.88
	60.0	36.49	May 5, 1973	1.0	9.83
	65.0	38.10		2.0	8.11
	70.0	39.44		3.0	8.48
	75.0	41.10		4.0	8.79
	80.0	42.56		5.0	8.83
	90.0	44.94		6.0	9.56
	92.0	45.26		7.0	10.34

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-31R1, Project Well No. LV-16--Continued					
May 5, 1973	8.0	10.87	May 5, 1973	45.0	30.32
	9.0	11.38		50.0	32.22
	10.0	11.43		55.0	34.16
	15.0	14.49		60.0	36.10
	20.0	18.98		65.0	38.22
	25.0	21.63		70.0	39.32
	30.0	23.62		73.9	40.29
	35.0	25.80	Aug. 10, 1973	10.0	15.60
	40.0	28.23		20.0	18.14
State Well No. 3S/29E-32A1, Project Well No. LV-24					
June 15, 1972	2.5	15.06	June 15, 1972	8.0	12.77
	4.0	14.17		10.0	12.63
	6.0	13.32		12.0	11.90
State Well No. 3S/29E-33K1, Project Well No. LV-29					
Aug. 6, 1973	1.0	20.93	Aug. 6, 1973	8.0	21.17
	2.0	20.96		9.0	21.80
	3.0	20.99		10.0	21.94
	4.0	21.00		15.0	24.31
	5.0	21.01		20.0	27.85
	6.0	21.08		25.0	31.83
	7.0	21.15		30.0	35.44
				35.0	38.93

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 3S/29E-36K1, Project Well No. LV-11					
June 14, 1972	56.0	15.66	May 3, 1973	10.0	3.86
	58.0	15.71		15.0	5.63
	60.0	15.76		20.0	6.79
	63.0	15.82		25.0	7.61
	65.9	16.12		30.0	7.97
May 3, 1973	1.0	4.28		35.0	8.30
	2.0	3.45		40.0	8.74
	3.0	3.29		45.0	8.99
	4.0	2.53		50.0	9.67
	5.0	2.09		55.0	9.99
	6.0	2.05		60.0	10.22
	7.0	2.42		65.0	10.62
	8.0	2.99	Aug. 9, 1973	10.0	13.16
	9.0	3.41		20.0	12.32
State Well No. 3S/30E-19M1, Project Well No. LV-28					
May 3, 1973	1.0	3.98	May 3, 1973	35.0	6.39
	2.0	3.51		40.0	6.04
	3.0	2.80		45.0	5.72
	4.0	2.19		50.0	5.68
	5.0	1.51		55.0	5.53
	6.0	1.18		60.0	5.43
	7.0	1.24		65.0	5.34
	8.0	1.54		70.0	5.15
	9.0	1.67		75.0	5.22
	10.0	1.88		80.0	5.17
	15.0	4.20		85.0	5.30
	20.0	5.21		85.9	5.30
	25.0	6.09	Aug. 9, 1973	10.0	11.12
	30.0	6.12		20.0	9.08

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 4S/28E-1F1, Project Well No. LV-19					
June 16, 1972	40.0	10.73	June 16, 1972	98.0	10.79
	42.0	10.74	May 3, 1973	1.0	10.01
	44.0	10.75		2.0	7.65
	46.0	10.77		3.0	6.80
	48.0	10.78		4.0	5.77
	50.0	10.78		5.0	5.21
	52.0	10.77		6.0	4.84
	54.0	10.77		7.0	4.59
	56.0	10.75		8.0	4.56
	58.0	10.75		9.0	4.75
	60.0	10.75		10.0	4.97
	62.0	10.73		15.0	7.26
	64.0	10.73		20.0	8.37
	66.0	10.73		25.0	9.22
	68.0	10.72		30.0	10.23
	70.0	10.72		35.0	10.64
	72.0	10.72		40.0	10.77
	74.0	10.72		45.0	10.80
	76.0	10.72		50.0	10.80
	78.0	10.73		55.0	10.76
	80.0	10.73		60.0	10.73
	82.0	10.74		65.0	10.70
	84.0	10.74		70.0	10.70
	86.0	10.75		75.0	10.69
	88.0	10.76		80.0	10.69
	90.0	10.77		85.0	10.69
	92.0	10.78		90.0	10.71
	94.0	10.79		95.0	10.72
	96.0	10.80	Aug. 8, 1973	10.0	11.91
				20.0	10.85

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 4S/28E-4P2, Project Well No. LV-2					
June 21, 1972	41.0	15.66	Aug. 6, 1973	8.0	13.64
	43.0	15.42		9.0	13.06
Aug. 6, 1973	2.0	17.43		10.0	12.60
	3.0	15.24		15.0	11.02
	4.0	16.31		20.0	10.59
	5.0	15.62		25.0	11.63
	6.0	14.98		30.0	13.20
	7.0	14.29		35.0	14.45
				42.4	14.90
State Well No. 4S/28E-6R1, Project Well No. LV-26					
June 19, 1972	3.0	12.87	June 19, 1972	17.0	7.20
	5.0	11.12		19.0	7.28
	7.0	8.11		21.0	7.40
	9.0	8.11		23.0	7.46
	11.0	7.41		25.0	7.53
	13.0	7.11		26.9	7.57
	15.0	7.13	Aug. 10, 1973	10.0	13.04
				20.0	8.17
State Well No. 4S/29E-3B1, Project Well No. LV-5					
May 2, 1973	1.0	14.71	May 2, 1973	35.0	15.81
	2.0	10.14		40.0	16.02
	3.0	8.38		45.0	16.49
	4.0	7.48		50.0	17.05
	5.0	6.64		55.0	17.58
	6.0	6.19		60.0	18.16
	7.0	6.60		65.0	18.56
	8.0	7.66		70.0	19.02
	9.0	8.22		75.0	19.60
	10.0	9.03		80.0	20.07
	15.0	10.39		85.0	20.73
	20.0	12.87		90.0	21.03
	25.0	14.50	Aug. 10, 1973	10.0	15.31
	30.0	15.40		20.0	12.98

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 4S/29E-3C1, Project Well No. LV-23					
June 15, 1972	26.0	19.46	June 15, 1972	44.0	20.84
	28.0	19.50		46.0	21.79
	30.0	19.52		48.0	22.42
	32.0	19.57		50.0	22.76
	34.0	19.63		52.0	23.42
	36.0	19.74		54.0	24.84
	38.0	19.83		56.0	25.28
	40.0	19.91		57.7	25.67
	42.0	20.22	Aug. 10, 1973	10.0	16.97
				20.0	15.03
State Well No. 4S/29E-4J2, Project Well No. LV-34					
Aug. 6, 1973	1.0	23.51	Aug. 6, 1973	20.0	29.00
	2.0	23.80		25.0	31.82
	3.0	24.32		30.0	35.47
	4.0	24.80		35.0	37.76
	5.0	24.97		40.0	39.06
	6.0	25.05		50.0	40.88
	7.0	25.22		60.0	41.92
	8.0	25.41		70.0	42.75
	9.0	25.63		76.5	43.39
	10.0	26.25	Aug. 10, 1973	10.0	26.53
	15.0	27.17		20.0	28.72
State Well No. 4S/29E-5B1, Project Well No. LV-3					
May 22, 1972	60.0	40.01	May 22, 1972	95.0	48.27
	65.0	41.07		95.9	48.47
	70.0	42.72	Aug. 6, 1973	1.0	18.63
	75.0	44.24		2.0	18.87
	80.0	45.41		3.0	18.95
	85.0	46.81		4.0	19.02
	88.0	46.89		5.0	19.08
	90.0	47.20		6.0	18.95
	92.0	47.38		7.0	18.40
	94.0	48.16		8.0	17.75

Date	Depth below land surface datum (feet)	Temperature (°C)	Date	Depth below land surface datum (feet)	Temperature (°C)
State Well No. 4S/29E-5B1, Project Well No. LV-3--Continued					
Aug. 6, 1973	9.0	17.53	Aug. 6, 1973	40.0	34.08
	10.0	17.67		50.0	38.50
	15.0	18.75		60.0	39.47
	20.0	21.95		70.0	42.68
	25.0	-		80.0	46.10
	30.0	28.49		90.0	48.01
				93.9	48.42
State Well No. 4S/29E-7D1, Project Well No. LV-4					
May 28, 1972	10.0	7.35	May 3, 1973	5.0	1.50
	15.0	7.31		6.0	1.32
	20.0	7.54		7.0	1.20
	25.0	8.01		8.0	1.18
	30.0	8.57		9.0	1.46
	35.0	9.24		10.0	1.59
	40.0	9.65		15.0	2.24
	45.0	10.01		20.0	3.00
	50.0	-		25.0	3.98
	52.0	10.30		30.0	4.63
	54.0	10.40		35.0	5.43
	56.0	10.43		40.0	5.95
	57.9	10.46		45.0	6.21
May 3, 1973	1.0	3.60		50.0	6.47
	2.0	2.77		55.0	6.55
	3.0	2.23		59.1	6.66
	4.0	1.63	Aug. 9, 1973	10.0	10.66
				20.0	8.62