G10015

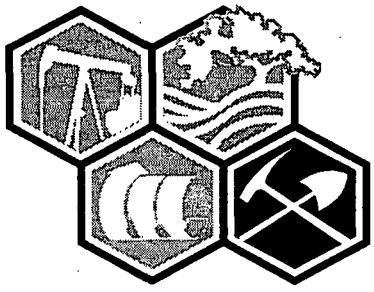
CALIFORNIA LOW-TEMPERATURE GEOTHERMAL RESOURCES UPDATE - 1993

1994

CALIFORNIA DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY

CALIFORNIA DIVISION OF MINES AND GEOLOGY
PRELIMINARY
SUBJECT TO REVISION
Not for publication or other general release.

DEPARTMENT OF CONSERVATION



Division of Mines and Geology

CALIFORNIA DIVISION OF MINES AND GEOLOGY
PRELIMINARY
SUBJECT TO REVISION
Not for publication or other general release.

This work was performed under Contract No. 1092-023(R) for the Low-Temperature Geothermal Resources and Technology Transfer Program with the State of Oregon by and through the State Board of Higher Education on behalf of Oregon Institute of Technology, Geo-Heat Center.

CALIFORNIA LOW-TEMPERATURE GEOTHERMAL RESOURCES UPDATE - 1993

1994

By Leslie G. Youngs

ACKNOWLEDGEMENT

This work was supported, in whole or in part, by the U.S. Department of Energy, via a contract with the Idaho National Engineering Laboratory. The subcontract Number is C92-120253. Such support does not constitute an endorsement by the U.S. Department of Energy of the views expressed in this publication.

CALIFORNIA DIVISION OF MINES AND GEOLOGY

PRELIMINARY

SUBJECT TO REVISION

Not for publication or other general release.

State of California
Department of Conservation
Division of Mines and Geology

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

INTRODUCTION

Current Program

The U.S. Department of Energy - Geothermal Division (DOE/GD) recently sponsored the Low-Temperature Geothermal Resources and Technology Transfer Program to bring the inventory of the nation's low- and moderate-temperature geothermal resources up to date and to encourage development of the resources. The Oregon Institute of Technology, Geo-Heat Center (OIT/GHC) and the University of Utah Research Institute (UURI) established subcontracts and coordinated the project with the state resource teams from the western states that participated in the program. The California Department of Conservation, Division of Mines and Geology (DMG) entered into contract numbered 1092-023(R) with the OIT/GHC to provide the California data for the program. This report is submitted in fulfillment of that contract.

A major goal of the Low-Temperature Geothermal Resources and Technology Transfer Program was to update and compile a database of thermal springs and wells that are in the temperature range of 20°C to 150°C for each state. The databases were to be designed for use on personal computers and have the capability of being accessed and managed using readily available commercial spreadsheet or data management software. A statewide map showing

the geothermal resources was to be computer generated utilizing the new databases. A second important goal of the contract was to complete a statewide collocation study of these geothermal resources with communities and other potential users. Demographic and geothermal data were to be provided for communities located within 8 kilometers of known resources having a temperature of at least 50°C.

Background

The statewide database of low-temperature geothermal resources in California has not been updated for over a decade. In 1980 the DMG produced the "Geothermal Resources Map of California" (Higgins and Martin, 1980). That map depicted low-temperature resource locations including wells and springs. Subsequently, the DMG published the "Technical Map of the Geothermal Resources of California" (Majmundar, 1983) that presented water chemistry data coded on the map as well as water chemistry tables presented in an accompanying text (Majmundar, 1984). The data developed at that time was readily shared between the U.S. Geological Survey (USGS) and the DMG. The USGS incorporated or updated that data into their GEOTHERM (Bliss, 1983) main-frame computer database of geothermal information for their Geothermal Research Program. The GEOTHERM file was abandoned in 1983. The DMG "Technical Map of the Geothermal Resources of California" as well as the accompanying text containing the water chemistry data are out-of-print. There is a

small reserve of the "Geothermal Resources Map of California" (Higgins and Martin, 1980) available from the DMG only as a flat rolled map.

Access to that original compiled geothermal water chemistry data became difficult. The new Low-Temperature Geothermal Resources and Technology Transfer Program has provided a new update and convenient access to the low-temperature geothermal data of California.

DATA SOURCES

The USGS GEOTHERM file and the DMG data compiled for the California statewide geothermal resource maps were used as the base for the new compilation. The DMG has published many detailed resource assessment reports on the low-temperature geothermal systems in California. These reports were primarily funded by the DOE's State-Coupled Resource Assessment Program of the late 1970's - early 1980's. These reports provided much new data that has been incorporated into the new compiled database. Files of The Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) and files at the California Energy Commission contain valuable data on low-temperature geothermal wells drilled in California over the past 10 years. These files provided additional data for the new database. Some new information on geothermal resources in California was found

in mineral and water resource investigations, technical reports, and other publications of the USGS as well as journal articles. A notable source of geothermal data is the transactions of the Geothermal Resources Council. As a result of reviewing the literature and searching older geothermal databases we were able to compile a bibliography with over 200 entries of low-temperature geothermal data sources of California. The bibliography is at the end of this report. The bibliography should be of aid to those geothermal researchers requiring more detailed information about the geothermal systems of California than can be interpreted from the newly compiled computer database. The bibliography includes all of the source references for the data listed in the new database.

In addition to the above data sources, we accessed and searched two nationally maintained water quality databases for pertinent data relating to geothermal resources in California. The databases are the U.S. Environmental Protection Agency (EPA) STORET water quality information system and the USGS Water Resources Division WATSTORE (National Water Data Storage and Retrieval System) water information system. We determined that the two databases share a large amount of duplicate data between them. We applied tests to the STORET and WATSTORE selected files for completeness of data, consistency of repeated data measurements, whether or not the data reflected a geothermal origin, plausibility of data, and for duplicate records that may

have previously been entered into our new compiled database. As a result of these tests we selected only a few new records from these files that could be reliably incorporated into the new DMG database without carrying out major field checking. The selected data on geothermal springs and wells in California from all data sources were entered manually from a keyboard into a LOTUS 1-2-3 spreadsheet on a personal computer. All of the computer records were visually checked with the original sources for accuracy and completeness. A variety of computer sorting, selection, and comparison routines were employed to arrange and edit the new database.

Because of the emphasis of this new database to show the statewide distribution of low- to moderate-temperature geothermal resources and because of proprietary restrictions many commercial high-temperature well data were generally not entered into the database. However, a few representative wells especially in the designated California Known Geothermal Resource Areas (K.G.R.A.) were entered into the database. The new DMG California low-temperature database contains 989 entries of thermal springs and wells. That is an increase of 354 locations more than the early 1980's DMG inventory of California's low-temperature geothermal resources.

PRELIMINARY

DATA FORMAT

State Database

The new California low-temperature geothermal resources database was designed to be readily accessible and maintained on personal computers. The general format of the database was devised at a meeting of the State Team Principal Investigators in Salt Lake City, July 8, 1993.

The source data were entered into a LOTUS 1-2-3 spreadsheet containing 35 data fields. The field names; general description of their contents; and explanation of codes used to represent type, status, and use of the thermal springs and wells are listed below:

Field Name	Description
ID#	- Identification number assigned to each well or spring for this report.
SOURCE NAME	- Name of spring, well owner, or other identification.
TYPE	- Springs: SP Wells: SW - well drilled to control spring flow. WW - water well. NLT - noncommercial low-temperature. TG - temperature gradient. INJ - injection well. OIL - petroleum well. X - type not confirmed, but most appear to be high-temperature exploration wells.

PLOT - Location is plotted on the statewide map:
Y = yes.
N = no.

LAT - Latitude in decimal degrees.

LONG - Longitude in decimal degrees.

CO. - California county three letter code. County codes are shown in Appendix A at the end of this report.

AREA - Community or local region where spring or well is located.

HTEMP (°C) - Highest recorded temperature found in data sources in degrees Celsius. This field does not appear in the Tables in the text.

TEMP (°C) - Temperature in degrees Celsius. W-warm, H-hot.

DEPTH (m) - Well depth in meters.

DRILL DATE - Year well was drilled. This field does not appear in the Tables in the text.

FLOW (L/min) - Flow rate in liters per minute.

STATUS - Operating status:
F - flowing.
P - pumped.
I - idle.
A - abandoned.
D - dried up.
H - heat exchanger in well.

USE - Use of the resource:
A - augmenting water supply.
B - direct use in baths/pools.
C - space heating.
D - district heating.
E - irrigation.
F - fish farming (aquaculture).
G - greenhouse applications.
H - heat exchanger in use.
I - idle, abandoned, or undeveloped.
J - bottled water.

DATE	- Date of data.
pH	- The pH of fluid in pH units.
CONDUCT	- Conductance as micromhos per centimeter.
Na - As	- Concentrations of the major cations and anions as milligrams per liter (Mg/L).
TDSm	- Total dissolved solids measured (Mg/L).
TDSc	- Total dissolved solids calculated (Mg/L).
REFERENCE	- Source of data.
PAGE(s)	- Page reference in source of data.

The database entries were organized alphabetically by county (the CO. field). The county name is represented in the database with a standard 3 letter code that is defined in Appendix A. A secondary grouping of the database organizes the spring and well locations in each county by the AREA field. The AREA field contains the name of a California community or local region where each spring or well is located. After the database organization was completed a sequentially increasing identification number (ID# field) was assigned from top to bottom of the list of entries. The identification numbers are used to identify the locations plotted on Plate 1. The identification number is unique to this database and may be changed in subsequent updates to the database.

Users of the database can select a great variety of search and sort parameters using standard personal computer database

management software to choose those records of interest from the database. Plot files to produce computer generated maps of selected data can be made utilizing the latitude and longitude coordinates in the database.

The complete database computer file is on the enclosed 3 1/2 inch diskette. The LOTUS 1-2-3 spreadsheet file and extension name is CALHOT.WK1. Also on the diskette is a file of the database in ASCII format labeled CALHOT.PRN. The database as hard copy is organized in Tables 1, 2, and 3 at the end of the text. Table 1 contains location data, descriptive data, and physical parameters of the thermal springs and wells. Table 2 contains the data that relate to water chemistry. Table 3 repeats some data that are in Table 1, but it primarily lists the source reference from which the data were obtained. The references are listed in the abbreviated form (author(s), date) and can be related to the complete reference in the bibliography at the end of this report.

State Map

A computer plot showing the locations of California's low-temperature geothermal springs and wells was generated utilizing the data organized in the database (Plate 1). The map is at the scale 1:1,000,000. An explanation of the plot symbols is included on the map. A reduced version of the map is shown in

PRELIMINARY

Figure 1. The new database contains more entries of known geothermal wells than are plotted on the map. Because the emphasis of the map is to show low-temperature resources, in areas where there are many know high-temperature (greater than 150° C) geothermal wells, especially within the K.G.R.A.'s, only a representative few have been plotted. Similarly, in areas where there are many known low- to moderate-temperature thermal wells only a few have been plotted for map clarity. Therefore, since some of the geothermal well locations in the database have not been plotted on the map, not all of the identification numbers in the database appear on the map.

The spring and well locations are given in coordinates of latitude and longitude. The location coordinates have been transcribed from a variety of published and unpublished sources. Some have been digitized from USGS topographic maps during the new database compilation. And some are derived by converting from the California well locating system of Township, Range, Section, and Subsection. The location information has been edited, but not all locations have been verified in the field. Therefore, the accuracy of some of the location coordinates may not meet some database user's requirements.

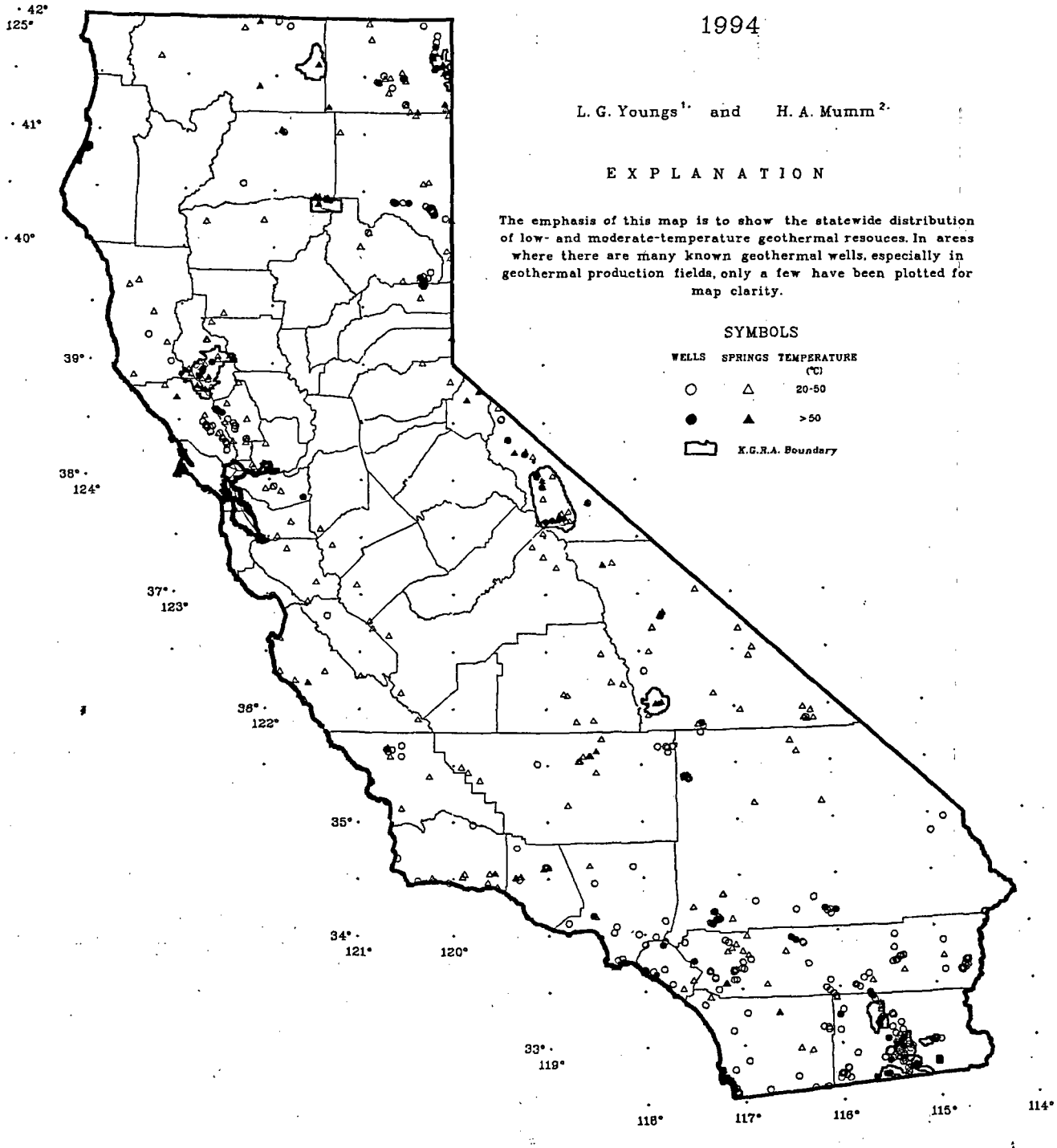
Known Geothermal Resource Areas (K.G.R.A.)

The previous DMG geothermal resources of California maps

PRELIMINARY

Geothermal Wells and Springs in California 1994

L. G. Youngs[1.] and H. A. Mumm[2.]



EXPLANATION

The emphasis of this map is to show the statewide distribution of low- and moderate-temperature geothermal resouces. In areas where there are many known geothermal wells, especially in geothermal production fields, only a few have been plotted for map clarity.

SYMBOLS

WELLS	SPRINGS	TEMPERATURE (°C)
○	△	20-50
●	▲	>50
		K.G.R.A. Boundary

State of California
Department of Conservation
1. Division of Mines and Geology
2. Information Systems Services

(Higgins and Martin, 1980 and Majmundar, 1983) show the locations of California's Known Geothermal Resource Areas (K.G.R.A.) that were designated by the U.S. Bureau of Land Management (BLM). The K.G.R.A. boundaries were manually drafted onto those older maps. In recent years the BLM has withdrawn some K.G.R.A.'s and amended the boundaries of others. We wanted to show the current designated K.G.R.A.'s on the new map by using plot files of the boundaries. We discovered that no boundary plot files existed. The BLM, USGS, several other state agencies, and private industry were also interested in acquiring files of digitized geodetic coordinates of the K.G.R.A. boundaries. The DMG has now digitized those boundaries and the files were used during the plotting of Plate 1. Appendix B explains the process and format we used to produce the boundary files. The files are on the enclosed diskette within the directory labeled CALKGRAS. The K.G.R.A. boundary files are available separately from the DMG upon request.

FLUID CHEMISTRY

A part of the Low-Temperature Geothermal Resources and Technology Transfer Program provided for up to ten new water chemistry analyses to be performed by UURI in support of updating the resource inventories of each of the state teams. The DMG collected three water samples at Orr Hot Springs, Mendocino County, California and sent them to UURI for analysis. Orr Hot

Springs is a small commercial spa complex with pool and bath facilities located in a small canyon in the north Coast Ranges of California. There are at least 10 small warm water springs issuing along the banks and in the bed of a small creek. The operators of the resort contacted the DOGGR and subsequently the DMG about their concerns over a decrease in the flow rate of the springs. Since water chemistry data recorded in the California database was decades old for Orr Hot Springs, we undertook a one day field investigation at the site. The new water chemistry data was entered into the updated database. An evaluation of the new data for Orr Hot Springs is under study.

DISCUSSION

Overview

The preponderance of geothermal development in California over the past decade has been devoted to the utilization of high- and moderate-temperature resources for electrical power generation. California leads the nation in production of electricity from hydrothermal systems with a current total capacity of over 2,500 megawatts electric (MWe). That is enough electricity to provide the electrical needs of a city with a population of two and a half million. The world's largest geothermal electrical development with a current installed capacity of 1,850 MWe is The Geysers Geothermal Field in the

north Coast Ranges of California. Electricity generated from hydrothermal systems is produced in four other regions of California as well. These regions are the Salton Sea/Imperial Valley area of southern California, the Coso geothermal area within the China Lake Naval Weapons Center in south-central California, the Mammoth Lakes area in the Long Valley Caldera east of the Sierra Nevada in central California, and northeastern California in the Wendell-Amedee/Honey Lake area. Increasing production in all of these geothermal regions is currently under development or study. Other recent or current high-temperature geothermal projects in California include the Clear Lake hot-dry-rock prospect north of The Geysers geothermal area and exploratory drilling for potential electrical generation of Medicine Lake Highlands/Glass Mountain area in Siskiyou County.

Grant and loan programs as well as cost-share programs primarily administered by the U.S. Department of Energy and the California Energy Commission have played a part over the past decade in increasing the interest of Californians of the utilization of their low-temperature geothermal resources. There are currently many successful direct-use, low-temperature geothermal projects in the state. Perhaps the most notable is the City of San Bernardino which uses an underlying geothermal resource of 58°C for space- and domestic-water heating in about 30 buildings in the downtown area. Other smaller district-heating projects in California include the City of Susanville,

Lassen County; Alturas and Cedarville in Modoc County; Big Bend, Shasta County; and the space-heating of structures at a large correctional facility at Litchfield, Lassen County. Several other California communities are engaged in various phases of district-heating project development. There are also many commercial, domestic, and public single structure geothermal space-heating projects in the state. Some of the larger facilities include Indian Springs School, Shasta County; the high school in Calistoga, Napa Valley; Surprise Valley Hospital, Modoc County; elementary and high schools in Greenville, Plumas County; and Indian Valley Hospital, Plumas County.

The commercial application of low-temperature geothermal resources to the greenhouse and aquaculture (fish farming) industries has greatly expanded in California during the past decade. An important fish farming industry has grown in the northern and eastern area around the Salton Sea in Imperial and Riverside Counties. There are nine facilities in the area raising a variety of fresh water species as well as several kinds of Tilapia. Tilapia are a non-native fish suited to the high salinity waters of the Salton Sea/Imperial Valley area. They are produced for food markets as well as bait fish. Four commercial nurseries in the same area primarily raise roses in greenhouses that are warmed with circulating geothermal fluids in the colder parts of the year. There is also a small greenhouse facility in Susanville, Lassen County that utilizes thermal waters produced

from a well in part of their operations.

A unique vocational training center in the state of California provided agricultural training in geothermal greenhouses. The Geothermal Agricultural Heat Center, Lake County began operations in 1989 utilizing 66°C water supplied to a heat exchanger system from two production wells. Horticulture classes were conducted at the greenhouse complex by the Mendocino-Lake Community College District. Regrettably the facilities have recently closed (in 1994).

The commercial geothermal resort/spa business is a relatively large, but poorly documented, industry in California. We were able to delineate approximately 48 commercial spa facilities throughout California that use geothermal waters either directly or indirectly through heat exchanger systems in pools, hot tubs, balneological baths, or mud baths. Most of these facilities are at historically developed hot springs areas. Anecdotal evidence suggests that there has been a renewed interest in "taking the baths" in California beginning in about the mid 1980's.

There are at least four mineral water bottling companies in California that are extracting their product from low-temperature geothermal resources. Three facilities in Calistoga, Napa County cool geothermal waters drawn from underlying aquifers then bottle

the mineralized water. A large portion of their product has added carbonation and/or flavorings. There is another commercial bottling plant at the Vicky Springs in Ukiah, Mendocino County. The mineral water is produced from a warm water spring.

Perhaps the general overview of the geothermal development in California during the past decade can be enhanced by reviewing some geothermal well drilling statistics. The following chart shows the numbers of documented geothermal wells drilled in California by year from 1980 to 1992.

Geothermal Wells Drilled in California

Year	Low-Temperature Wells Drilled	High-Temperature Wells Drilled	Observation Wells Drilled	Exploration Wells Drilled
1980	7	26	112	14
1981	4	25	116	14
1982	2	27	69	9
1983	4	33	26	5
1984	4	48	32	7
1985	8	34	40	7
1986	7	28	15	1
1987	4	30	17	5
1988	8	26	9	9
1989	3	8	3	3
1990	4	13	4	11
1991	5	12	1	4
1992	5	?	?	?
TOTAL	65	310	444	89

Data is from Department of Conservation, Division of Oil, Gas, and Geothermal Resources files.

It is evident from the chart that the greater activity has been in high-temperature geothermal development. It can be inferred from the production well statistics that geothermal development in California experienced the most activity during the middle to late 1980's of the past decade.

Collocation of Resources

An important part of the Low-Temperature Geothermal Resources and Technology Transfer Program was to complete a collocation study of geothermal resources and communities in the Western States in order to identify and encourage those communities to develop their geothermal resources. In California we have identified 56 communities that are located within 8 kilometers of a known geothermal resource with a temperature of at least 50°C. The communities are shown on the state map on Plate 2. Demographic and resource data for each of the communities is listed in Table 4 at the end of the text. A comparison of Plate 2 with the Geologic Map of California (Plate 3) shows that the northern and central California communities collocated with a geothermal resource (≥50°C) are located in the proximity of Cenozoic volcanic rocks. The majority of those communities identified in the southern part of the state are located in sedimentary basins and desert valleys that are associated with major faulting. The geothermal resources include hot springs, hot water reservoirs, steam and hot brines

production fields, and geothermal water produced from some petroleum fields.

Historically, most of the communities that we have identified have experienced some development of their geothermal resources. However, depending on the characteristics of the resource, the potential exists for increased geothermal development for applications such as space- and district-heating, spa and bathing facilities, aquaculture, industrial and greenhouse operations, and possible electrical generation in some areas.

SUMMARY PRELIMINARY

As a result of participating in the Low-Temperature Geothermal Resources and Technology Transfer Program sponsored by the U.S. Department of Energy, the California Department of Conservation, Division of Mines and Geology has compiled a near one thousand record database of low- to moderate-temperature geothermal wells and springs in California. This is a major update of a decade old inventory. The database is designed for use with readily available commercial software on personal computers (PC's) for ease of accessibility, editing, updating, and transmitting of the data file. The locations of the thermal wells and springs have been plotted on a new state map at a scale of 1:1,000,000.

The new inventory (PC database) of thermal wells and springs reflects the wide distribution and abundance of the low-temperature geothermal resources in California. There has been a determined and relatively successful effort over the past decade to utilize those resources in a variety of applications. There is, however, a great potential for increased development for applications such as space- and district-heating, aquaculture, industrial and greenhouse operations, and thermal spa facilities. In this study we have identified 56 communities that are located within 8 kilometers of a known geothermal resource that has a reported temperature of at least 50°C. We hope those California communities as well as others can benefit from the data presented in this report while pursuing the potential for development of their geothermal resources.

RECOMMENDATIONS

An analysis of the updated low-temperature geothermal resources of California shows that there are many areas that would greatly benefit from a Second Phase local geothermal assessment. After discussions with staff of the California Energy Commission and the DOGGR, we have selected (partially based on population data) seven areas and one alternate for proposed assessment studies. Although these areas have had historical and some recent geothermal development as well, they generally lack a comprehensive study of the resource. A resource

assessment study of each of the areas would provide potential geothermal developers with basic resource information, provide local governments with data for planning purposes, and serve to increase public awareness of their local geothermal resources. The selected communities or areas are collocated with a known resource having a temperature of at least 50°C.

The list of proposed areas of study is subject to future review based on new geothermal development, local interest, funding, and probability of resource use. We suggest the following California geothermal areas or communities for Second Phase studies (not in any order of preference):

1. Coachella Valley (communities of La Quinta, Palm Desert, and Palm Springs), Riverside County - The Coachella Valley is a major agricultural area with a population around 200,000. There are thermal springs and wells (some recently drilled) along a 20-30 kilometer extent of the west side of the valley. Some have water temperatures of at least 50°C. However, there appears to be no comprehensive study of the resource. Potential application might include aquaculture and food drying processes.

2. Alturas, Modoc County - The geothermal resource underlying this community of 3,500 population is

characterized by well "AL" 1 at a depth of 896 meters with a water temperature of 86°C. The resource is used for space heating at the local high school. Although the area was included in a geothermal resource assessment of Modoc County in 1986 that was sponsored by the California Energy Commission, the city of Alturas would greatly benefit from a comprehensive Second Phase study of the local resource that would include some geophysical surveys. There is a potential to expand space heating to other structures in the community.

3. Lake Elsinore, Riverside County - The rapidly growing area of approximately 20,000 population is overlying a fault controlled, historically developed geothermal resource evidenced by several springs and many thermal wells. A maximum temperature of 54°C has been reported to date. Three wells were drilled in 1985 to provide fluids for space heating of a community building. The project is now idle. The community would greatly benefit from a detailed resource assessment study.

4. Ojai, Ventura County - The community of approximately 8,000 people is located 8 kilometers southeast of Vickers Hot Springs and Stingleys Hot Springs that both discharge water at 51°C. There are two other thermal

springs nearby. No encompassing geothermal resource assessment exists for the area.

5. Lake Isabella, Kern County - Several thermal springs south of the community along the Kern River have historically been developed for resort/spa use. A maximum temperature of 54°C at a flow rate of 415 L/min has been reported at Scovern Hot Springs. There is no comprehensive geothermal assessment of this area that is comprised of several small communities having a total population of approximately 10,000.

6. Huntington Beach/Los Angeles Basin, Orange/Los Angeles Counties - The largest metropolitan area of California is in part overlying major oil fields that produce thermal water as a waste product of petroleum production. There are at least 12 petroleum fields with very large quantities of associated thermal water characterized by the Venice Field of 21 million BTU/hour at 82°C. There is great local interest in utilizing the geothermal resource.

7. Hemet/Winchester, Riverside County - A few shallow water wells in this area of 40,000 population have been reported in literature as thermal wells. The greatest reported temperature is 59°C. Very little is known

about the source of the warm water and a comprehensive assessment would be of great value to delineate the resource.

ALTERNATE.

Kelley Hot Springs (near community of Canby), Modoc County - The springs flow at 1,250 L/min at 92°C and have been applied to a variety of uses including greenhouse applications and fish farming on a limited scale. All enterprises have been abandoned. The current owners are very interested in development of the resource, but the benefit to the town on Canby (population 450 and about 8 kilometers distant) is unknown.

ACKNOWLEDGEMENTS

Howard Ross of the University of Utah Research Institute and Paul Lienau and Gene Culver of the Oregon Institute of Technology coordinated the state teams participating in the Low-Temperature Geothermal Resources and Technology Transfer Program. Their guidance is greatly appreciated. Richard Thomas, Ken Stelling, Christy Craig Hunter, Elizabeth Johnson, and Susan Hodgson of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources provided support and information about

geothermal wells in California. Sean Hagerty of the U.S. Bureau of Land Management provided data about the designated Known Geothermal Resource Areas in California. Henry Mumm of the California Department of Conservation, Information Systems Services produced the computer plotted map "Geothermal Springs and Wells in California", Plate 1 of this report.

TABLE 1

CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
1	Crohare Spring	SP	Y	37.6320	121.7620	ALA	Pleasanton	21.0		8			
2	Warm Springs	SP	Y	37.5030	121.9067	ALA	Fremont	27.0					
3	Grovers Hot Springs	SP	Y	38.6980	119.8450	ALP	Markleeville	60.0		400	F	B,H	05/17/82
4	Unnamed Spring	SP	Y	38.7728	119.7130	ALP	Markleeville	65.0		473			
5	Valley Springs	SP	N	38.1952	120.8225	CAL	Valley Springs	24.0		4			
6	Red Eye Spring	SP	Y	39.3510	122.6705	COL	Red Eye Spring	24.0		8			
7	Elgin Mine (Spring)	SP	Y	39.0570	122.4708	COL	Wilbur Springs	69.0		38			
8	Wilbur Hot Spring	SP	N	39.0387	122.4208	COL	Wilbur Springs	55.6		80	F	B	03/09/91
9	"Sunedco/Bailey Min." 1	NLT	Y	39.0333	122.4301	COL	Wilbur Springs	175.0	2711.6	197	A	I	
10	Empire Silver Mine	SP	Y	39.0377	122.4255	COL	Wilbur Springs	38.0		1			
11	Jones Hot Spring (W)	SW	N	39.0338	122.4270	COL	Wilbur Springs	61.9			F	I	03/09/91
12	Unnamed Springs	SP	Y	39.0348	122.4265	COL	Wilbur Springs	61.0		15			
13	Blancks Hot Springs	SP	Y	39.0312	122.4313	COL	Wilbur Springs	49.0		15			
14	Sulphur Spring	SP	Y	37.9147	122.0420	CCA	Mt. Diablo	24.0		8			
15	Unnamed Spring	SP	Y	37.9292	121.9650	CCA	Mt. Diablo	23.0					
16	Unnamed Well	WW	Y	37.9375	121.9542	CCA	Mt. Diablo	23.0	160.0	10			
17	Unnamed Spring	SP	Y	37.8945	121.8737	CCA	Mt. Diablo	21.0					
18	Byron Hot Springs	SW	Y	37.8472	121.6305	CCA	Byron	51.0	75.0	600	I	I	03/23/81
19	Wentworth Springs	SP	Y	39.0130	120.3380	ELD	Wentworth Springs	24.0		6			
20	Meyers Warm Spring	SP	Y	38.8500	120.0250	ELD	Echo Summit	24.0		15			
21	Fish Creek Hot Sps.	SP	Y	37.5320	119.0245	FRE	NE. Fresno Co.	43.0		19			
22	Unnamed Spring	SP	Y	37.4125	119.1392	FRE	NE. Fresno Co.	35.0					
23	Mono Hot Springs	SP	Y	37.3267	119.0167	FRE	Mono Hot Springs	43.0		200			
24	Blaney Meadows Hot Sps.	SP	Y	37.2337	118.8813	FRE	NE. Fresno Co.	43.0		150			
25	Mercy Hot Springs	SP	Y	36.7033	120.8598	FRE	Mercy Hot Sps.	48.0			F	B	12/07/81

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
26	Escarpado Spring	SP	Y	36.6417	120.6833	FRE	Mendota	24.0					
27	Coalinga Mineral Sps.	SP	Y	36.1450	120.5562	FRE	Coalinga	31.0		4			
28	Salt Spring	SP	Y	39.4303	122.5363	GLE	Stonyford	24.0		20			
29	Fish Springs Well	WW	Y	33.4180	116.0400	IMP	NW. Salton Sea	46.0					
30	Fish Springs	SP	Y	33.4070	116.0347	IMP	NW. Salton Sea	28.0		57			
31	Well 9S/9E-23M1 S	WW	N	33.3742	116.0133	IMP	NW. Salton Sea	27.0					
32	Ballard's Truckhaven	WW	Y	33.2972	115.9762	IMP	Salton City	38.0	392.0	45			
33	Well 10S/9E-35N1 S	WW	Y	33.2520	116.0108	IMP	Salton City	59.0	604.0				
34	Well 10S/9E-36P1 S	WW	Y	33.2513	115.9872	IMP	Salton City	33.0	195.0				
35	Holly Corp. Hot Mnr. Well	WW	N	33.2475	116.0008	IMP	Salton City	58.0					
36	Jacobs No.3 Well	X	N	33.1167	116.0195	IMP	Borrego Valley	39.0	366.0				
37	Jacobs No.2 Well	X	Y	33.1170	116.0097	IMP	Borrego Valley	31.0	204.0				
38	Landmark Corp. Well	X	N	33.0638	116.0308	IMP	Borrego Valley	35.0	361.0				
39	Well 14S/11E-32R1 S	WW	Y	32.9030	115.8480	IMP	Ocotillo	28.0	300.0				
40	C.L. Smith Well	WW	Y	32.7167	115.9630	IMP	Ocotillo	29.0	46.0				
41	J. Greene Well	WW	Y	32.7833	115.9478	IMP	Ocotillo	29.0	32.0				
42	Dollinger Well	WW	Y	32.7763	115.9405	IMP	Ocotillo	30.0	91.0				
43	Miller's Serv. Sta. Well	WW	Y	32.7292	116.0167	IMP	Ocotillo	34.0	163.0				
44	H.D. Currey Well	WW	Y	32.7388	116.0047	IMP	Ocotillo	29.0	107.0				
45	Davis Spring (Well)	SW	Y	32.6945	116.0250	IMP	Ocotillo	28.0					
46	Texaco Station Well	WW	Y	32.7305	115.9937	IMP	Ocotillo	33.0	167.0				
47	W. Simpson Well	WW	Y	32.6897	115.9247	IMP	Ocotillo	29.0	92.0				
48	Unnamed Well	WW	N	33.4250	115.6917	IMP	Hot Mineral Spa	77.0					
49	Hot Mineral Spa Well	WW	Y	33.4258	115.6855	IMP	Hot Mineral Spa	88.0	99.0	900			
50	Bashford's Hot Mnr. (W)	WW	N	33.4237	115.6808	IMP	Hot Mineral Spa	62.0	75.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
51	"Bashford" 1	CLT	Y	33.4179	115.6799	IMP	Hot Mineral Spa	74.4	510.7	57	A	I	
52	Fountain Of Youth Well	WW	Y	33.4033	115.6617	IMP	Hot Mineral Spa	60.0	192.0				
53	Fountain of Youth,"Spa" 2	CLT	N	33.3991	115.6626	IMP	Hot Mineral Spa	W	198.0				
54	Well 9S/13E-20E1 S	WW	Y	33.3788	115.6437	IMP	Hot Mineral Spa	31.0					
55	"Niland" 1	CLT	N	33.4179	115.6799	IMP	Hot Mineral Spa	W	146.4				
56	"Niland" 2	CLT	N	33.4160	115.6782	IMP	Hot Mineral Spa	W	146.3				
57	"Niland" 3	CLT	N	33.4176	115.6788	IMP	Hot Mineral Spa	W	146.0				
58	"Imperial" 1	CLT	N	33.4182	115.6743	IMP	Hot Mineral Spa	61.5	480.0		A	I	
59	"Imperial" 2	CLT	N	33.4164	115.6811	IMP	Hot Mineral Spa	65.0	148.5	1703		F	
60	"Imperial" 3	CLT	N	33.4205	115.6786	IMP	Hot Mineral Spa	H	163.0			F	
61	Unnamed Mud Volcano	SP	Y	33.3450	115.5875	IMP	Salton Sea KGRA	W					
62	Unnamed Mud Volcano	SP	N	33.3450	115.5700	IMP	Salton Sea KGRA	W					
63	Unnamed Mud Volcano	SP	N	33.3233	115.5700	IMP	Salton Sea KGRA	W					
64	Unnamed Mud Volcano	SP	N	33.3233	115.5875	IMP	Salton Sea KGRA	W					
65	Unnamed Mud Volcano	SP	N	33.3117	115.6067	IMP	Salton Sea KGRA	W					
66	Unnamed Mud Volcano	SP	Y	33.3117	115.5875	IMP	Salton Sea KGRA	W					
67	Unnamed Mud Volcano	SP	N	33.2850	115.5700	IMP	Salton Sea KGRA	W					
68	Unnamed Mud Volcano	SP	Y	33.2850	115.5883	IMP	Salton Sea KGRA	W					
69	Well 11S/14E-2A1 S	WW	Y	33.2442	115.4772	IMP	Niland	44.0	251.0				
70	Fish Producers, "Ray" 1	CLT	Y	33.2293	115.4646	IMP	Niland	W	270.0				
71	Unnamed Mud Pot	SP	N	33.2197	115.5803	IMP	Salton Sea KGRA	38.0					
72	J. Massion Well	WW	Y	33.2197	115.5787	IMP	Salton Sea KGRA	40.0					
73	Earth Energy Hudson 1	X	N	33.2122	115.5695	IMP	Salton Sea KGRA	40.0	1871.0				
74	Unnamed Mud Pots	SP	N	33.2125	115.5958	IMP	Salton Sea KGRA	38.0					
75	Well 11S/13E-22H1 S	WW	N	33.1983	115.5970	IMP	Salton Sea KGRA	28.0	46.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
76	IID 3 - Imp. Therm. Pr.	X	Y	33.2053	115.5883	IMP	Salton Sea KGRA	105.0	517.0				
77	Earth Energy Rvr Ranch 1	X	N	33.2025	115.5780	IMP	Salton Sea KGRA	345.0	2470.0				
78	Unnamed Mud Pot	SP	N	33.2008	115.5772	IMP	Salton Sea KGRA	38.0					
79	O'Neill Geothermal Inc.	X	N	33.2005	115.5872	IMP	Salton Sea KGRA	310.0	1441.0				
80	IID 1 - Imp. Therm. Pr.	X	N	33.2020	115.5917	IMP	Salton Sea KGRA	316.0	1595.0				
81	IID 2 - Imp. Therm. Pr.	X	Y	33.1967	115.5983	IMP	Salton Sea KGRA	348.0	1776.0	3300			
82	Elmore 1 Well	X	N	33.1830	115.6122	IMP	Salton Sea KGRA	360.0	2169.0	2400			
83	Magmamax 3 Magma Power	X	N	33.1687	115.6228	IMP	Salton Sea KGRA	321.0	940.0				
84	Magmamax 2 Magma Power	X	N	33.1687	115.6292	IMP	Salton Sea KGRA	278.0	1329.0				
85	Magmamax 1 Magma Power	X	Y	33.1625	115.6187	IMP	Salton Sea KGRA	265.0	690.0				
86	Magma Power, Woolsey 1	X	N	33.1625	115.6145	IMP	Salton Sea KGRA	171.0	713.0				
87	Sinclair 4	X	N	33.1487	115.6213	IMP	Salton Sea KGRA	164.0	1373.0				
88	Sinclair 3	X	Y	33.1470	115.6075	IMP	Salton Sea KGRA	168.0	1439.0	4500			
89	Well 13S/14E-9R1 S	WW	Y	33.0287	115.5233	IMP	Brawley	138.0	2545.0				
90	C. Bowles Well	WW	Y	33.1262	115.4778	IMP	Calipatria	41.0	280.0				
91	Well 12S/15E-3A1 S	WW	Y	33.1617	115.3887	IMP	Calipatria	31.0	263.0				
92	Well 12S/15E-26J1 S	WW	Y	33.0962	115.3722	IMP	Imperial Valley	33.0	105.0				
93	Well 12S/15E-27R1 S	WW	N	33.0897	115.3888	IMP	Imperial Valley	34.0	131.0				
94	Well 13S/15E-5D1 S	WW	Y	33.0667	115.4478	IMP	Imperial Valley	36.0	264.0	40			
95	Well 13S/15E-3N1 S	WW	N	33.0442	115.4162	IMP	Imperial Valley	41.0	271.0				
96	Well 13S/15E-3Q1 S	WW	Y	33.0450	115.4047	IMP	Imperial Valley	40.0	268.0				
97	Well 13S/15E-1B1 S	WW	N	33.0612	115.3703	IMP	Imperial Valley	55.0	332.0				
98	Well 13S/16E-6A1 S	WW	N	33.0603	115.3522	IMP	Imperial Valley	32.0					
99	Well 12S/16E-31N1 S	WW	N	33.0750	115.3487	IMP	Imperial Valley	39.0	282.0	20			
100	Well 13S/16E-6J1 S	WW	N	33.0495	115.3492	IMP	Imperial Valley	33.0	189.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
101	Well 13S/16E-18F1 S	WW	N	33.0222	115.3583	IMP	Imperial Valley	28.0	188.0				
102	Well 13S/16E-6P1 S	WW	N	33.0438	115.3583	IMP	Imperial Valley	32.0	91.0	20			
103	Well 13S/16E-6N1 S	WW	Y	33.0438	115.3622	IMP	Imperial Valley	38.0					
104	Well 13S/15E-1Q1 S	WW	N	33.0467	115.3703	IMP	Imperial Valley	29.0	122.0				
105	Meyer-Dickerman Well	WW	N	33.0305	115.3703	IMP	Imperial Valley	37.0					
106	Dickerman-Butters Well	WW	Y	33.0233	115.3663	IMP	Imperial Valley	52.0					
107	Well 13S/15E-16Q1 S	WW	Y	33.0158	115.4238	IMP	Imperial Valley	39.0	232.0	40			
108	Well 13S/15E-24E1 S	WW	N	33.0083	115.3805	IMP	Imperial Valley	39.0					
109	Well 13S/15E-24N1 S	WW	N	33.0013	115.3813	IMP	Imperial Valley	43.0	213.0	60			
110	Well 13S/15E-23Q1 S	WW	Y	33.0013	115.3887	IMP	Imperial Valley	56.0	396.0	160			
111	T. Shank Well	WW	Y	32.9825	115.4488	IMP	Imperial Valley	44.0	307.0				
112	N. Fifield Well	WW	Y	32.9678	115.4488	IMP	Imperial Valley	51.0	393.0				
113	Magnolia School Well	WW	N	32.9825	115.4220	IMP	Imperial Valley	51.0	425.0	140			
114	Well 13S/15E-33K1 S	WW	N	32.9745	115.4242	IMP	Imperial Valley	33.0	319.0				
115	M. Phegley Well	WW	N	32.9750	115.4150	IMP	Imperial Valley	44.0	291.0	40			
116	Fifield-Hoepner Well	WW	N	32.9747	115.4067	IMP	Imperial Valley	22.0	319.0				
117	Orita Feed Lot Well	WW	Y	32.9750	115.4012	IMP	Imperial Valley	43.0	274.0				
118	B. Emanuelli Well	WW	N	32.9825	115.3362	IMP	Imperial Valley	41.0					
119	Well 13S/16E-28R1 S	WW	Y	32.9867	115.3158	IMP	Imperial Valley	36.0					
120	Mamer-Shank Well	WW	N	32.9533	115.4320	IMP	Imperial Valley	31.0	244.0				
121	J. Birger Well	WW	Y	32.9450	115.4317	IMP	Imperial Valley	31.0	118.0	20			
122	Moiola Feed Lot Well	WW	N	32.9533	115.3972	IMP	Imperial Valley	42.0	199.0	28			
123	Gisler-Bowman Well	WW	N	32.9380	115.4058	IMP	Imperial Valley	48.0	355.0	239			
124	Mendiburu Lot Well	WW	Y	32.9433	115.3788	IMP	Imperial Valley	52.0	378.0				
125	F. Borchard Well	WW	N	32.9580	115.3195	IMP	Imperial Valley	38.0	139.0	48			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
126	F. Borchard Well	WW	Y	32.9595	115.3208	IMP	Imperial Valley	37.0	140.0				
127	Well 14S/16E-11H1 S	WW	Y	32.9508	115.2837	IMP	Imperial Valley	35.0	87.0				
128	Well 14S/16E-16B1 S	WW	N	32.9387	115.3197	IMP	Imperial Valley	32.0	137.0				
129	Well 14S/16E-15K1 S	WW	N	32.9313	115.3197	IMP	Imperial Valley	25.0	122.0	4			
130	Well 14S/16E-21D1 S	WW	N	32.9245	115.3283	IMP	Imperial Valley	36.0	137.0				
131	Well 14S/16E-21B1 S	WW	N	32.9245	115.3197	IMP	Imperial Valley	33.0		20			
132	Well 14S/16E-22D1 S	WW	Y	32.9245	115.3113	IMP	Imperial Valley	42.0	216.0	20			
133	Coons Well	WW	N	32.9025	115.3055	IMP	Imperial Valley	31.0					
134	Well 14S/16E-19N1 S	WW	N	32.9153	115.3650	IMP	Imperial Valley	50.0	346.0				
135	J. Birger No. 1 Well	WW	Y	32.9170	115.3975	IMP	Imperial Valley	39.0	230.0	20			
136	J. Birger No. 2 Well	WW	N	32.9097	115.4045	IMP	Imperial Valley	32.0	123.0	16			
137	H. Foster Well	WW	N	32.9025	115.4233	IMP	Imperial Valley	31.0	116.0				
138	Jenson Well	WW	N	32.8953	115.4063	IMP	Imperial Valley	30.0	109.0	120			
139	Gaddis Well	WW	Y	32.8838	115.4042	IMP	Imperial Valley	36.0	187.0	60			
140	Well 15S/15E-1H1 S	WW	Y	32.8770	115.3705	IMP	Imperial Valley	38.0	177.0				
141	Well 15S/16E-7F1 S	WW	N	32.8630	115.3583	IMP	Imperial Valley	27.0	158.0				
142	Hooke Well	WW	N	32.8578	115.3530	IMP	Imperial Valley	36.0	212.0	12			
143	Well 15S/15E-12H1 S	WW	Y	32.8622	115.3705	IMP	Imperial Valley	38.0					
144	Unnammed Well	WW	N	32.8617	115.3750	IMP	Imperial Valley	38.0					
145	C. Allen Well	WW	Y	32.8478	115.4095	IMP	Imperial Valley	40.0	263.0	40			
146	Well 15S/15E-13N1 S	WW	Y	32.8397	115.3792	IMP	Imperial Valley	36.0	244.0				
147	Well 15S/15E-9N1 S	WW	Y	32.8575	115.4333	IMP	Imperial Valley	34.0	183.0				
148	Well 15S/15E-10G1 S	WW	N	32.8622	115.4062	IMP	Imperial Valley	32.0	140.0	108			
149	Well 15S/15E-9E1 S	WW	N	32.8655	115.4317	IMP	Imperial Valley	33.0	189.0				
150	Unnamed Well	WW	N	32.8500	115.4583	IMP	Imperial Valley	38.0					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
151	Well 15S/14E-13E1 S	WW	Y	32.8480	115.4820	IMP	Imperial Valley	35.0	36.0				
152	Magma Ener. Bonanza 1	X	Y	32.8317	115.5088	IMP	Imperial Valley	H	1531.0				
153	Unnamed Well	WW	Y	32.8583	115.5667	IMP	Imperial Valley	30.0					
154	Magma Ener. Fed-Rite 1	X	Y	32.6867	115.6562	IMP	Heber	H	1640.0				
155	Magma Ener. Holtz 2	X	Y	32.7153	115.5578	IMP	Heber	159.0	1490.0				
156	Magma Ener. Holtz 1	X	Y	32.7153	115.5425	IMP	Heber	168.0	1531.0				
157	Chevron, Nowlin Partner	X	Y	32.7153	115.5263	IMP	Heber	H	1533.0				
158	Well 15S/15E-26B1 S	WW	N	32.8187	115.3892	IMP	Holtville	40.0	396.0				
159	Well 15S/15E-25D1 S	WW	N	32.8225	115.3825	IMP	Holtville	37.0					
160	Well 15S/15E-25F1 S	WW	N	32.8200	115.3792	IMP	Holtville	40.0					
161	Well 15S/15E-25B1 S	WW	Y	32.8217	115.3670	IMP	Holtville	44.0					
162	Well 15S/16E-18Q1 S	WW	N	32.8405	115.3525	IMP	Holtville	36.0	134.0				
163	Well 15S/15E-36D1 S	WW	N	32.8095	115.3803	IMP	Holtville	29.0		12			
164	Well 15S/15E-35A1 S	WW	Y	32.8100	115.3847	IMP	Holtville	45.0	355.0	115			
165	Spanish Trails Park	WW	N	32.8155	115.3638	IMP	Holtville	43.0	473.0				
166	A. Fusi Jr. Well	WW	N	32.8113	115.3538	IMP	Holtville	40.0	305.0				
167	Well 15S/16E-29Q2 S	WW	N	32.8108	115.3372	IMP	Holtville	37.0					
168	R. Garewal Well	WW	N	32.8430	115.3087	IMP	Imperial Valley	32.0	245.0				
169	Well 15S/16E-22L1 S	WW	Y	32.8325	115.3062	IMP	Imperial Valley	35.0	229.0	12			
170	Well 15S/16E-23F1 S	WW	N	32.8337	115.2908	IMP	Imperial Valley	34.0	171.0	100			
171	Well 15S/16E-36E1 S	WW	N	32.8037	115.2753	IMP	East Mesa KGRA	38.0	192.0				
172	Magma Ener. Sharp 1	X	N	32.7962	115.2863	IMP	East Mesa KGRA	126.0	1851.0				
173	C. Ansiel Well	WW	Y	32.7888	115.3230	IMP	Imperial Valley	36.0	287.0				
174	Mesa 6-2 U.S.B.R.	X	N	32.7858	115.2555	IMP	East Mesa KGRA	186.0	1804.0	900			
175	Mesa 6-1 U.S.B.R.	X	Y	32.7862	115.2488	IMP	East Mesa KGRA	204.0	2426.0	1500			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
176	UC 6-1S1 Well	X	N	32.7862	115.2488	IMP	East Mesa KGRA	33.0	46.0				
177	Mesa 5-1 U.S.B.R.	X	N	32.7942	115.2305	IMP	East Mesa KGRA	170.0	1829.0				
178	U.C. Riverside 127 Well	X	Y	32.7662	115.2362	IMP	East Mesa KGRA	83.0	429.0				
179	Linden Gravel Well	WW	N	32.7653	115.2700	IMP	East Mesa KGRA	49.0	247.0				
180	Schneider-Guthrie Well	WW	N	32.7717	115.2762	IMP	East Mesa KGRA	42.0	251.0				
181	Watton Camp Well	WW	Y	32.7658	115.2838	IMP	East Mesa KGRA	43.0	344.0				
182	Well 16S/16E-15B1 S	WW	Y	32.7658	115.3028	IMP	Imperial Valley	37.0	305.0	16			
183	Lechuga Store Well	WW	Y	32.7561	115.3367	IMP	Imperial Valley	40.0					
184	Well 16S/16E-33D1 S	WW	Y	32.7225	115.3280	IMP	Imperial Valley	31.0	244.0				
185	L. Bornt Well	WW	Y	32.6925	115.3350	IMP	Imperial Valley	35.0	218.0				
186	Magma Ener. Sharp 2	X	N	32.7155	115.2978	IMP	Imperial Valley	H	1977.0				
187	Smith Brothers Well	WW	Y	32.9987	115.0738	IMP	Glamis	71.0	207.0				
188	Erma Mine Well	WW	Y	32.9983	114.9817	IMP	Glamis	30.0	213.0				
189	Gold Rock Ranch Well	WW	Y	33.8683	114.9117	IMP	Ogilby	37.0	210.0				
190	U.S.B.R. No. 115 Well	X	Y	32.8020	115.0153	IMP	Ogilby	100.0	107.0				
191	Keough Hot Springs	SP	Y	37.2538	118.3765	INY	Owens Valley	58.0		2000	F	B	
192	Unnamed Springs	SP	Y	37.2675	118.2722	INY	Owens Valley	29.0					
193	Grapevine Spring	SP	Y	37.0268	117.3833	INY	Death Valley	37.0		115	F	I	05/08/81
194	Upper Warm Springs	SP	Y	36.8320	117.7370	INY	Saline Valley	50.0					
195	Palm Spring	SP	Y	36.8130	117.7653	INY	Saline Valley	50.0					
196	Lower Burro Warm Spring	SP	Y	36.8058	117.7717	INY	Saline Valley	43.0					
197	Little Hunter Canyon Sps.	SP	Y	36.6978	117.8480	INY	Saline Valley	27.0		568			
198	Unnamed Spring	SP	Y	36.4955	117.8928	INY	Owens Valley	30.0		57			
199	Dirty Socks Hot Sps. Well	SW	Y	36.3295	117.9487	INY	Owens Valley	34.0	183.0				
200	Devils Kitchen Fumarole	SP	Y	36.0347	117.7987	INY	Coso Hot Springs	97.0					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
201	Coso Hot Springs Well	SP	Y	36.0462	117.7692	INY	Coso Hot Springs	97.0					
202	Unnamed Fumarole	SP	Y	36.0337	117.8330	INY	Coso Hot Springs	97.0					
203	Unnamed Spring	SP	Y	35.9400	117.9025	INY	Coso Hot Springs	27.0		1			
204	Bainter Spring	SP	Y	35.8428	117.3817	INY	Trona	24.0		1		I	05/14/81
205	Well 24S/43E-22M1 M	WW	Y	35.8297	117.3295	INY	Trona	32.0	91.0				
206	Well 24S/43E-9P1 M	WW	Y	35.8558	117.3405	INY	Trona	58.0	183.0				
207	Warm Sulfur Springs	SP	Y	36.1225	117.2150	INY	Panamint Valley	27.0		4			
208	Warm Spring	SP	Y	35.9667	116.9312	INY	Death Valley	W					
209	Tecopa Hot Springs	SP	Y	35.8718	116.2312	INY	Tecopa	42.0		757	F	B,C	05/10/81
210	Resting Spring	SP	Y	35.8775	116.1560	INY	Tecopa	27.0		980			
211	Well 21N/7E-28P1 S	WW	Y	35.8858	116.2333	INY	Tecopa	48.0	107.0	40000	F	I	05/10/81
212	Unnamed Spring	SP	Y	35.8883	116.2578	INY	Tecopa	W					
213	Chappo Spring	SP	Y	35.9478	116.1883	INY	Tecopa	27.0		38			
214	Shoshone Spring	SP	Y	35.9800	116.2730	INY	Tecopa	32.0					
215	Travertine Springs	SP	Y	36.4408	116.8292	INY	Death Valley	32.0					
216	Nevares Springs	SP	Y	36.5122	116.7900	INY	Death Valley	40.0		1325	F	A	05/11/81
217	Keane Wonder Hot Spring	SP	Y	36.6762	116.9258	INY	Death Valley	34.0		113			
218	Meadow Hot Spring	SP	Y	35.7290	118.4112	KRN	Kernville	41.0		15	F	I	03/18/81
219	Meadow Hot Spring No.6	SP	Y	35.7290	118.4150	KRN	Kernville	20.0		3	F	I	03/18/81
220	Scovern Hot Springs	SP	Y	35.6205	118.4730	KRN	Lake Isabella	54.0		415	F	I	03/20/81
221	Miracle Hot Springs	SP	Y	35.5762	118.5330	KRN	Bodfish	50.0		49	F	A,B	03/30/81
222	Delonegha Hot Springs	SP	Y	35.5733	118.6128	KRN	Bodfish	43.0		30	F	B	03/19/81
223	Unnamed Spring	SP	Y	35.5353	118.6495	KRN	Bodfish	W					
224	Democrat Hot Springs	SP	Y	35.5288	118.6668	KRN	Bodfish	39.0		57	F	B	03/30/81
225	Yates Hot Springs	SP	Y	35.4330	118.4788	KRN	Bodfish	38.0		30			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
226	Well 26S/39E-19Q1 M	WW	Y	35.6525	117.8197	KRN	Inyokem	31.0	112.0				
227	Well 26S/39E-24P1 M	WW	Y	35.6528	117.7313	KRN	Ridgecrest	34.0	252.0				
228	Well 26S/40E-22P1 M	WW	Y	35.6533	117.6633	KRN	Ridgecrest	32.0	253.0				
229	Well 27S/40E-7G1 M	WW	Y	35.6033	117.7117	KRN	Ridgecrest	30.0	125.0				
230	Warm Spring	SP	Y	35.1475	118.7830	KRN	Arvin	W					
231	Well 28S/27E-7C2 M	WW	Y	35.5133	119.1083	KRN	Oildale	29.0					
232	Mize Spring	SP	Y	35.4833	119.9167	KRN	W. Kern Co.	23.0					
233	Carneros Spring	SP	Y	35.4388	119.8463	KRN	W. Kern Co.	32.0		189			
234	Unnamed Spring	SP	Y	35.3667	119.7213	KRN	W. Kern Co.	34.0					
235	Well 26S/40E-30K2 M	WW	Y	35.6433	117.7132	KRN	Ridgecrest	30.0	244.0	5000	P	A	05/13/81
236	Placer Claim Springs	SP	Y	35.5777	118.5493	KRN	Bodfish	40.0		10	F	B	03/31/81
237	Crabtree Hot Springs	SP	N	39.2908	122.8217	LAK	Bartlet Springs	41.0		76			
238	Unnamed Spring	SP	Y	39.2000	122.7250	LAK	Bartlet Springs	32.0		19			
239	Newman Springs	SP	Y	39.1980	122.7143	LAK	Bartlet Springs	33.0		94			
240	Newman Spring	SP	N	39.1980	122.7143	LAK	Clear Lake	29.5		60	F	I	03/12/91
241	Complexion Spring	SP	N	39.1703	122.5125	LAK	Clear Lake	8.9			F	I	03/09/91
242	Chalk Mt. Spring	SP	N	39.0722	122.5833	LAK	Clear Lake	16.1			F	I	03/09/91
243	Unnamed Spring	SP	Y	39.0550	122.5933	LAK	Clear Lake	21.0					
244	Hog Hollow Spring	SP	Y	39.0233	122.5917	LAK	Clear Lake	30.0		8		I	03/07/91
245	Grizzly Spring	SP	N	39.0017	122.4983	LAK	Clear Lake	19.4		6	F	I	03/09/91
246	Sulphur Bank Wells	X	Y	39.0038	122.6613	LAK	Clear Lake	99.0	424.0				
247	Sulphur Bank Hot Springs	SP	Y	39.0033	122.6633	LAK	Clear Lake	70.0		1			
248	Unnamed Springs	SP	Y	38.9858	122.7358	LAK	Clear Lake	38.0		19			
249	Kettenhofen 1 Well	X	Y	38.9492	122.7517	LAK	Clear Lake	187.0	2385.0				
250	Big Soda Spring	SP	Y	39.0080	122.7872	LAK	Clear Lake	32.0		500			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
251	Lake Co.,"Ag Park" 1	CLT	Y	38.9357	122.7588	LAK	Kelseyville	61.7	492.3		P	C,G,H	
252	Lake Co.,"Ag Park" 2	CLT	N	38.9339	122.7603	LAK	Kelseyville	57.2	180.4		P	C,G,H	
253	Lake Co.,"Ag Park" 3	CLT	N	38.9320	122.7597	LAK	Kelseyville	63.9	148.7		P	C,G,H	
254	Unnamed Well	WW	Y	38.9783	122.8333	LAK	Clear Lake	24.0		38			
255	Highland Springs	SP	Y	38.9377	122.9078	LAK	Clear Lake	28.0		15			
256	England Springs	SP	Y	38.8967	122.8817	LAK	Clear Lake	24.0		30			
257	Agricultural Park #3 Well	CLT	Y	38.9250	122.7567	LAK	Clear Lake	65.7		400	P	G	03/08/91
258	Carlsbad Spring	SP	Y	38.9180	122.7978	LAK	Clear Lake	26.0		12			
259	Sullivan 1 Well	X	Y	38.8853	122.7917	LAK	Clear Lake	82.0	1872.0				
260	Gordon Hot Spring	SP	N	38.8350	122.7308	LAK	Clear Lake	34.6			F	I	03/11/91
261	Seigler Hot Springs	SP	Y	38.8760	122.6880	LAK	Clear Lake	52.0		28			
262	Howard Hot Springs	SP	N	38.8583	122.6733	LAK	Clear Lake	46.3		55	F	B	03/13/91
263	Ettawa Springs	SP	Y	38.8500	122.6900	LAK	Clear Lake	21.7		2		I	03/08/91
264	Pine Cone Spring	SP	N	38.8500	122.6900	LAK	Clear Lake	27.0				I	
265	Sulfur Creek Spring	SP	Y	38.8617	122.7567	LAK	Clear Lake	21.0			F	I	03/11/91
266	Spiers Spring	SP	N	38.8375	122.6517	LAK	Clear Lake	24.2		15	F	I	03/08/91
267	Anderson Springs	SP	N	38.7750	122.7333	LAK	The Geysers	49.4		2	F	I	03/11/91
268	Harbin Springs	SP	Y	38.7887	122.6563	LAK	Middletown	48.0		30			
269	Castle Rock Springs	SP	Y	38.7708	122.7162	LAK	Middletown	73.0		38			
270	Baker Soda Spring	SP	N	38.8920	122.5320	LAK	Clear Lake	21.3		3			03/07/91
271	Bare Ranch Spring	SP	Y	41.1667	120.0333	LAS	Eagleville	32.0		19			
272	Warm Spring	SP	Y	41.1625	120.4038	LAS	Likely	21.0		21			
273	Kellog Hot Spring	SP	N	41.1275	121.0250	LAS	Bieber	90.0		15			
274	Bassett Hot Springs	SP	N	41.1450	121.1108	LAS	Bieber	79.0		200		A,B	10/06/81
275	Unnamed Springs	SP	Y	41.0133	121.2725	LAS	Pittville	W					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
276	Roosevelt Pool Well	X	Y	40.4092	120.6622	LAS	Susanville	38.0					
277	Church of L.D.S. Well	WW	Y	40.4063	120.6600	LAS	Susanville	49.0	172.0	800			
278	Wirth Well No. 1	WW	Y	40.4072	120.6540	LAS	Susanville	49.0	42.0				
279	N. State Growers Well	WW	Y	40.4047	120.6563	LAS	Susanville	61.0	190.0				
280	N. No. 1 Well	WW	Y	40.4087	120.6587	LAS	Susanville	63.0					
281	Lassen Lumber & Box 2 (W)	X	Y	40.4013	120.6475	LAS	Susanville	37.0					
282	Eagle Lake Lumber Well	WW	Y	40.4033	120.6317	LAS	Susanville	27.0					
283	Unnamed Well	WW	Y	40.4133	120.6583	LAS	Susanville	53.0					
284	"Davis" 2	NLT	N	40.4110	120.6606	LAS	Susanville	76.7	140.2	1514			
285	"Susan" 1	CLT	N	40.4125	120.6651	LAS	Susanville	78.9	283.5	1325			
286	Tsuji Nursery "TNI" 2 (W)	CLT	N	40.4070	120.6579	LAS	Susanville	68.3	184.5	2305			
287	"Johnston" 1	CLT	Y	40.4030	120.4863	LAS	Litchfield	79.4	434.1	3956	P	C	
288	"Johnston" 2	CLT	Y	40.4027	120.4896	LAS	Litchfield	63.3	443.9		P	C	
289	Well 30N/13E-31R1 M	WW	Y	40.4083	120.5500	LAS	Litchfield	26.0					
290	Sellicks Springs	SP	Y	40.5667	120.3250	LAS	E. Lassen Co.	22.0		3939			
291	Tipton Springs	SP	Y	40.5800	120.2650	LAS	E. Lassen Co.	21.0		3496			
292	Well 29N/15E-16G1 M	WW	Y	40.3733	120.2933	LAS	Wendel-Amedee KGRA	27.0					
293	Wendel Hot Springs	SP	Y	40.3558	120.2555	LAS	Wendel-Amedee KGRA	96.0		1200			
294	Magma Power Co. Wendel 1	X	Y	40.3583	120.2542	LAS	Wendel-Amedee KGRA	79.0	192.0				
295	Southern Pacific RR Well	WW	Y	40.3420	120.2208	LAS	Wendel-Amedee KGRA	28.0	93.0	300			
296	Magma Power Amedee 1,2	X	Y	40.3000	120.1947	LAS	Wendel-Amedee KGRA	107.0	334.0	227			
297	Amedee Hot Springs	SP	Y	40.3042	120.1958	LAS	Wendel-Amedee KGRA	95.0		6840			
298	Well 28N/17E-20J1 M	WW	Y	40.2650	120.0750	LAS	Wendel	27.0					
299	High Rock Spring	SP	Y	40.2467	120.0068	LAS	Wendel	30.0		1984			
300	Unnamed Spring	SP	Y	39.9800	120.0638	LAS	Doyle	42.0		577			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
301	Zamboni Hot Springs	SP	Y	39.9195	120.0233	LAS	Doyle	40.0		95	F	B,C,G	05/02/82
302	Warm Springs	SP	Y	34.6072	118.5622	LAX	Castaic lake	33.0		76			
303	Well 6N/12W-13N1 S	WW	Y	34.6025	118.1083	LAX	Lancaster	27.0					
304	Well 4N/16W-1Q1 S	WW	Y	34.4542	118.5125	LAX	Santa Clarita	28.0					
305	Seminole Hot Sps. Well	SW	Y	34.1075	118.7908	LAX	Seminole Hot Sps.	46.0	915.0	15			
306	Well 1N/16W-14K1 S	WW	Y	34.1667	118.5250	LAX	Encino	56.0					
307	El Encino Springs	SP	Y	34.1592	118.4988	LAX	Encino	26.0		17			
308	Bimini Hot Sps. Well	SW	Y	34.0692	118.2907	LAX	Los Angeles	40.0	534.0	380			
309	Well 2S/14W-14C2 S	WW	Y	34.0183	118.3167	LAX	Los Angeles	27.0					
310	Well 1S/9W-1F1 S	WW	Y	34.1150	117.7800	LAX	La Verne	36.0					
311	Well 2S/11W-8N1 S	WW	Y	34.0050	118.0617	LAX	Whittier	29.0					
312	Alvarado Hot Sps. Well	SW	Y	33.9758	117.8863	LAX	Hacienda Heights	44.0	1525.0	142			
313	Well 3S/11W-14H4 S	WW	Y	33.9125	117.9958	LAX	East Whittier	34.0					
314	Well 4S/13W-27N1 S	WW	Y	33.7917	118.2350	LAX	Long Beach	28.0					
315	Well 5S/13W-6D1 S	WW	Y	33.7750	118.2833	LAX	Long Beach	31.0					
316	Unnamed Spring	SP	Y	33.8017	118.4000	LAX	Palos Verdes	25.0					
317	Whites Point Hot Sps.	SP	Y	33.7150	118.3183	LAX	San Pedro	46.0					
318	Reds Meadow Hot Sps.	SP	Y	37.6183	119.0733	MAD	Long Valley	46.0		50			
319	Rocky Point Springs	SP	Y	37.8858	122.6287	MAR	Stinson Beach	32.0		8			
320	Jackson Valley Mud Sps.	SP	Y	39.6578	123.5870	MEN	Laytonville	27.0		1			
321	Pinches Spring	SP	Y	39.6962	123.4825	MEN	Laytonville	21.0		190			
322	Muir Springs	SP	Y	39.4288	123.3075	MEN	Willits	20.0					
323	Orrs Hot Springs	SP	N	39.2298	123.3649	MEN	Ukiah	40.0		114			
324	Orr Hot Sps."Trilby Sp."	SP	N	39.2298	123.3649	MEN	Ukiah	28.0				B	09/21/93
325	Orr Hot Sps."Pool Sp."	SP	N	39.2298	123.3649	MEN	Ukiah	29.0				B	09/21/93

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
326	Orr Hot Sps. Well	SW	Y	39.2298	123.3649	MEN	Ukiah	39.0	1.5		F	B	09/21/93
327	Vichy Springs	SP	Y	39.1655	123.1562	MEN	Ukiah	29.0				B,J	08/13/90
328	Cal-Dri Ice Co. Well	WW	Y	39.0050	123.1083	MEN	Hopland	W	241.0				
329	Point Arena Hot Sps.	SP	Y	38.8772	123.5092	MEN	Pt. Arena	44.0		19			
330	San Luis Forebay Sp.	SP	Y	37.0833	121.0417	MER	San Luis Res.	21.0					
331	Iridat Spring	SP	Y	36.7737	120.8990	MER	Mercy Hot Sps.	23.0		76			
332	Unnamed Spring	SP	Y	36.7670	120.8995	MER	Mercy Hot Sps.	27.0		38			
333	Warm Spring	SP	Y	41.9587	120.9428	MOD	N. Modoc Co.	W					
334	Pothole Spring	SP	Y	41.8252	120.9153	MOD	N. Modoc Co.	26.0		38			
335	Weidner Well	WW	Y	41.9478	120.3175	MOD	Goose Lake Val.	47.0	150.0	3000	P	E	10/08/80
336	Fort Bidwell Hot Sp. Well	X	N	41.8617	120.1592	MOD	Fort Bidewll	45.0		400			
337	Fort Bidwell Geo. Well	NLT	Y	41.8617	120.1578	MOD	Fort Bidwell	46.0	155.0	1512	F	I	05/29/82
338	Well 46N/16E-31R1 M	WW	Y	41.8078	120.1708	MOD	Fort Bidwell	28.0	13.0				
339	Well 45N/16E-17M1 M	WW	Y	41.7667	120.1812	MOD	Fort Bidwell	53.0	24.0				
340	Well 44N/16E-6E2 M	WW	Y	41.7142	120.1975	MOD	Lake City	25.0	137.0				
341	Magma Energy Wells	X	Y	41.6718	120.2167	MOD	Lake City	160.0	1508.0	1370			
342	Lake City Mud Volcano Sp.	SP	Y	41.6680	120.2092	MOD	Lake City	97.0					
343	Hutchen's Well	WW	Y	41.5833	120.1700	MOD	Cederville	48.0	124.0				
344	Unnamed Well	WW	Y	41.5817	120.1792	MOD	Cederville	69.0	194.0	570			
345	Robison Well	WW	Y	41.5658	120.1917	MOD	Cederville	50.0	77.0	605			
346	Leonards Hot Sps. (West)	SP	Y	41.5987	120.0913	MOD	Cederville	41.0		200			
347	Seyferth Hot Springs	SP	Y	41.6158	120.1033	MOD	Cederville	85.0		500			
348	Leonards Hot Sps. (East)	SP	Y	41.6015	120.0850	MOD	Cederville	62.0		150			
349	Surprise Val. Mnr. Well	WW	Y	41.5333	120.0773	MOD	Cederville	86.0		100	F	B,C	04/30/82
350	Unnamed Spring	SP	Y	41.5297	120.0870	MOD	Cederville	98.0		600			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
351	Benmac Hot Springs	SP	Y	41.5305	120.0822	MOD	Cederville	98.0		700			
352	Menlo Baths Hot Springs	SP	Y	41.2658	120.0820	MOD	Eagleville	56.0		95	F	I	04/30/82
353	Unnamed Spring	SP	Y	41.2083	120.0542	MOD	Eagleville	43.0					
354	Unnamed Spring	SP	Y	41.2217	120.0667	MOD	Eagleville	41.0		175			
355	Unnamed Spring	SP	Y	41.1917	120.3833	MOD	Likely	77.0		12			
356	Unnamed Spring	SP	Y	41.1967	120.4708	MOD	Likely	W					
357	Unnamed Spring	SP	Y	41.2532	120.5208	MOD	Likely	24.0					
358	New Williams R. Well	WW	Y	41.2683	120.5250	MOD	Likely	29.0	62.0	150			
359	Van Loan Well	WW	Y	41.2617	120.5303	MOD	Likely	44.0	30.0	175	F	A,E	10/09/80
360	Unnamed Spring	SP	Y	41.3600	120.7233	MOD	Alturas	27.0		380			
361	Unnamed Spring	SP	Y	41.4667	120.5250	MOD	Alturas	22.0		4			
362	CA. Pines Lodge	NLT	Y	41.4090	120.6856	MOD	Alturas	38.0	238.0	946		B,C	
363	Modoc Sch. Dist.,"AL" 1	CLT	Y	41.4917	120.5405	MOD	Alturas	86.1	896.6	303		C	03/26/91
364	Alturas Elem. Sch.,"AL" 2	CLT	Y	41.4901	120.5553	MOD	Alturas	83.3	594.5			C	11/17/91
365	Unnamed Spring	SP	Y	41.5417	120.5667	MOD	Alturas	27.0		38			
366	Essex Springs	SP	Y	41.4928	120.6992	MOD	Alturas	33.0		500			
367	SX Ranch Spring	SP	Y	41.4850	120.7635	MOD	Canby	26.0		19	F	A,E,F	04/29/82
368	SX Ranch Well	WW	Y	41.5117	120.7775	MOD	Canby	24.0		190	F	E	04/29/82
369	Kelly Hot Spring	SP	Y	41.4540	120.8347	MOD	Canby	92.0		1250			
370	Kelly Hot Sp. Ranch Well	WW	Y	41.4517	120.8350	MOD	Canby	116.0	1035.0				
371	"Canby School" 1	TG	Y	41.4566	120.8531	MOD	Canby	37.0	206.0	1514			07/17/85
372	Little Hot Spring	SP	Y	41.2305	121.4033	MOD	Day	73.5		300	F	E	10/03/80
373	Weidner Well	WW	Y	41.9478	120.3175	MOD	Goose Lake Val.	47.0					
374	Unnamed Spring	SP	Y	38.6267	119.5042	MON	Antelope Valley	W					
375	Sierra E. Mobile Pk. Well	WW	Y	38.5250	119.4750	MON	Antelope Valley	35.0			P		09/27/80

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
376	Unnamed Well	WW	Y	38.5333	119.4667	MON	Antelope Valley	W	97.9				
377	Fales Hot Springs	SP	Y	38.3505	119.4003	MON	Fales Hot Sps.	61.0		1000	F	B	09/24/80
378	Magma Power Co. Well	X	Y	38.3500	119.4000	MON	Fales Hot Sps.	38.0	126.0				
379	Buckeye Hot Springs	SP	Y	38.2392	119.3250	MON	Bridgeport	60.0		400			
380	Travertine Hot Spring	SP	Y	38.2463	119.2042	MON	Bridgeport	82.0		50			
381	The Hot Springs	SP	Y	38.2242	119.2145	MON	Bridgeport	40.0		100			
382	Magma Power Co. Well	X	Y	38.2250	119.2125	MON	Bridgeport	51.0	300.0				
383	Warm Spring	SP	Y	38.2022	119.1207	MON	Bridgeport	25.0		2			
384	Dechambeau Well	SW	Y	38.0500	119.0817	MON	Mono Lake	66.0	287.0	20	F	I	05/24/82
385	Unnamed Spring	SP	Y	38.0542	119.0633	MON	Mono Lake	54.0					
386	State PRC 4572.1 Well	X	Y	38.0245	119.0832	MON	Mono Lake	58.0	743.0				
387	Warm Springs	SP	Y	38.0330	118.9043	MON	Mono Lake	31.0		76			
388	Unnamed Springs	SP	Y	37.9958	119.0233	MON	Mono Lake	86.0		250			
389	State PRC 4397.1 Well	X	Y	37.9393	119.0302	MON	Mono Lake	54.0	1220.0				
390	Unnamed Spring	SP	Y	37.9400	119.0192	MON	Mono Lake	42.0		4			
391	Unnamed Spring (Tunnel)	SP	Y	37.8358	119.0158	MON	Mono Lake	36.0					
392	Unnamed Fumaroles	SP	Y	37.6192	119.0278	MON	Mammoth Lakes	W					
393	Casa Diablo Hot Springs	SP	Y	37.6458	118.9150	MON	Mammoth Lakes	82.0					
394	Magma Power Co. Wells	X	Y	37.6458	118.9167	MON	Mammoth Lakes	177.0	324.0				
395	Mammoth Lakes,"MLGRAP" 1	CLT	N	37.6511	118.9796	MON	Mammoth Lakes	77.0	468.1				
396	Mammoth Lakes,"MLGRAP" 2	CLT	N	37.6406	118.9642	MON	Mammoth Lakes	74.0	490.7				
397	Mammoth Lakes,"Ohwell" 1	CLT	Y	37.6359	118.9888	MON	Mammoth Lakes	79.4	664.0				
398	Hot Bubbling Pool	SP	Y	37.6470	118.8600	MON	Mammoth Lakes	68.0			F	I	05/26/82
399	Little Hot Creek Sps.	SP	Y	37.6900	118.8400	MON	Long Valley	82.0		717			
400	Hot Creek Springs	SP	Y	37.6645	118.8275	MON	Long Valley	88.0		15000			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
401	Unnamed Spring	SP	Y	37.7080	118.8133	MON	Long Valley	38.0					
402	Big Alkali Lake Sp.	SP	Y	37.6700	118.7815	MON	Long Valley	57.0		75	F	I	05/26/82
403	Whitmore Hot Springs	SP	Y	37.6308	118.8117	MON	Long Valley	37.0		1560			
404	Unnamed Spring	SP	Y	37.6433	118.7575	MON	Long Valley	41.0		150			
405	Unnamed Spring	SP	Y	37.6367	118.7242	MON	Long Valley	28.0					
406	Unnamed Springs	SP	Y	37.7192	118.7375	MON	Long Valley	24.0					
407	Benton Hot Springs	SP	Y	37.8008	118.5300	MON	Benton Hot Sps.	57.0		800			
408	Benton Indian Well	WW	Y	37.7963	118.5233	MON	Benton Hot Sps.	30.0	73.0	75	P	A	05/27/82
409	Bertrand Ranch Springs	SP	Y	35.8917	118.4917	MON	Benton	21.0		378			
410	Unnamed Spring	SP	Y	36.6183	121.8445	MNT	Monterey	38.0					
411	Unnamed Spring	SP	Y	36.3312	121.8428	MNT	Big Sur	46.0		38			
412	Unnamed Spring	SP	Y	36.2500	121.6833	MNT	Big Sur	W					
413	Slates Hot Springs	SP	Y	36.1230	121.6353	MNT	Big Sur	47.0		95			
414	Dolans Hot Springs	SP	Y	36.0837	121.5863	MNT	Big Sur	37.0		114			
415	Tassajara Hot Springs	SP	Y	36.2337	121.5492	MNT	Big Sur	60.0		189	F	B	12/09/81
416	Paraiso Springs	SP	Y	36.3313	121.3675	MNT	Soledad	43.0		57	F	B,E	12/08/81
417	Sulfur Spring	SP	Y	36.3313	121.3662	MNT	Soledad	31.0		15			
418	Table Mountain (Spring)	SP	Y	35.9083	120.3667	MNT	Parkfield	30.0					
419	Unnamed Spring	SP	Y	38.8333	122.3567	NAP	Knoxville	22.0		189			
420	Aetna Springs	SP	Y	38.6522	122.4833	NAP	Aetna Springs	33.0		40			
421	Calistoga Pwr. Co. Well	X	Y	38.5955	122.6003	NAP	Calistoga	138.0	350.0				
422	Calistoga Hot Springs	SW	Y	38.5822	122.5728	NAP	Calistoga	78.0					
423	Well 8N/6W-4F1 M	WW	Y	38.5738	122.5322	NAP	Calistoga	81.0	63.0				
424	Phillips Soda Springs	SP	Y	38.5217	122.2608	NAP	Lake Berryessa	24.0		38			
425	Napa Rock Soda Sps.	SP	Y	38.5187	122.2597	NAP	Lake Berryessa	26.0		84			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
426	Well 8N/6W-25H2 M	WW	Y	38.5175	122.4700	NAP	Napa Valley	21.0					
427	White Sulfur Springs	SP	Y	38.4905	122.4967	NAP	Napa Valley	36.0		34			
428	Well 7N/5W-3M1 M	WW	Y	38.4850	122.4067	NAP	Napa Valley	25.0	184.0				
429	Well 7N/5W-15A1 M	WW	Y	38.4633	122.3942	NAP	Napa Valley	21.0	93.0				
430	Well 7N/5W-14G1 M	WW	Y	38.4592	122.3808	NAP	Napa Valley	21.0	70.0				
431	Well 7N/5W-26D1 M	WW	Y	38.4342	122.3908	NAP	Napa Valley	27.0	5.0				
432	Well 7N/5W-26E1 M	WW	Y	38.4308	122.3892	NAP	Napa Valley	30.0	17.0				
433	Napa Vichy Springs	SP	Y	38.3388	122.2592	NAP	Napa Valley	24.0		4			
434	Well 6N/4W-23J1 M	WW	Y	38.3500	122.2650	NAP	Napa Valley	29.0	184.0	184			
435	Unnamed Spring	SP	Y	38.3208	122.2708	NAP	Napa Valley	28.0					
436	Well 6N/4W-24M1 M	WW	Y	38.3508	122.2600	NAP	Napa Valley	24.0					
437	Wine Val. Inn,"Wilson" 1	CLT	N	38.5778	122.5774	NAP	Calistoga	49.0	101.5	114			
438	Calis. Sch. Dist.,"CHS" 1	CLT	N	38.5835	122.5792	NAP	Calistoga	W	106.7	284		C,H	
439	"Roman Spa" 1	CLT	N	38.5779	122.5775	NAP	Calistoga	71.1	64.0	95			
440	City Calistoga,"Calis" 1	INJ	N	38.5782	122.5794	NAP	Calistoga	84.4	173.5	276		I	
441	"Village Inn" 1	CLT	N	38.5779	122.5778	NAP	Calistoga	60.0	89.6	114			
442	Calis. Sch. Dist.,"CHS" 2	CLT	N	38.5827	122.5787	NAP	Calistoga	82.2	80.0	76			
443	Napa V.S.M.W.Co.,"Fox" 3	CLT	N	38.5818	122.5777	NAP	Calistoga	W	91.4			J	
444	"CDHS" 1	CLT	N	38.5776	122.5731	NAP	Calistoga	W					
445	Calistoga M.W.Co.,"CMW" 3	CLT	N	38.5855	122.5743	NAP	Calistoga	W	99.4			J	
446	Golden Haven Spa	WW	N	38.5858	122.5797	NAP	Calistoga	91.0	91.4	190	P	A,B,C	03/12/80
447	Golden Haven Spa	WW	N	38.5855	122.5792	NAP	Calistoga	31.0	27.0	19	P	A	03/12/80
448	Unnamed Well	WW	N	38.6005	122.6073	NAP	Calistoga	25.0	54.9	76	P	A	03/12/80
449	Unnamed Well	WW	N	38.5970	122.6007	NAP	Calistoga	135.0	57.9		H	A,C	03/13/80
450	Unnamed Well	WW	N	38.5962	122.6022	NAP	Calistoga	42.0	14.0	132	P	A	03/13/80

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
451	"Godward" 1	EST	N	38.5938	122.6015	NAP	Calistoga	81.0	65.2		F	I	03/13/80
452	Unnamed Well	WW	N	38.5945	122.6022	NAP	Calistoga	81.0	60.4		H	A,G	03/13/80
453	Unnamed Well	WW	N	38.5913	122.6053	NAP	Calistoga	20.0	25.9	68	P	A	03/13/80
454	Unnamed Well	WW	N	38.5893	122.6032	NAP	Calistoga	20.0	0.0		P	E	03/13/80
455	Unnamed Well	WW	N	38.6012	122.5978	NAP	Calistoga	37.0	121.9		P	A	03/14/80
456	Unnamed Well	WW	N	38.5965	122.5992	NAP	Calistoga	65.0	30.5		F	G	03/18/80
457	Unnamed Well	WW	N	38.5962	122.5990	NAP	Calistoga	116.0	58.8		F	A	03/18/80
458	Unnamed Well	WW	N	38.5960	122.5990	NAP	Calistoga	97.9	45.7		F	A	03/18/80
459	Unnamed Well	WW	N	38.5948	122.5967	NAP	Calistoga	47.0	0.0	19	P	A,B	03/18/80
460	Unnamed Well	WW	N	38.5922	122.5948	NAP	Calistoga	36.0	61.0		F	A	03/18/80
461	Unnamed Well	WW	N	38.5937	122.5945	NAP	Calistoga	23.0	9.4		P	A	03/18/80
462	Unnamed Well	WW	N	38.5917	122.5942	NAP	Calistoga	25.0	24.4		P	A	03/18/80
463	Unnamed Well	WW	N	38.5930	122.5945	NAP	Calistoga	21.0	9.1		P	A	03/18/80
464	Well 9N/7W-26 M	WW	N	38.5937	122.5950	NAP	Calistoga	21.0	12.2		P	A	03/18/80
465	Unnamed Well	WW	N	38.5980	122.5833	NAP	Calistoga	21.0	36.6	30	P	A	03/19/80
466	"Calvert" 1	WW	N	38.5965	122.5895	NAP	Calistoga	52.0	125.0		P	A,B	03/19/80
467	Unnamed Well	WW	N	38.5920	122.5935	NAP	Calistoga	40.0	61.0		P	B	03/19/80
468	Unnamed Well	WW	N	38.5885	122.5958	NAP	Calistoga	24.0	45.7		P	A	03/20/80
469	Unnamed Well	WW	N	38.5895	122.5972	NAP	Calistoga	22.0	22.9		P	A	03/20/80
470	Napa Co. Fairgrounds	WW	N	38.5843	122.5907	NAP	Calistoga	24.0	57.9	19	P	A	03/24/80
471	Unnamed Well	WW	N	38.5875	122.5842	NAP	Calistoga	49.0	51.8	76	P	A	03/26/80
472	"Turner" 1	WW	N	38.5893	122.5825	NAP	Calistoga	74.0	61.0	76	H	B	03/26/80
473	"Turner" 2	WW	N	38.5892	122.5827	NAP	Calistoga	20.0	24.4	19	P	A	03/26/80
474	Unnamed Well	WW	N	38.5900	122.5847	NAP	Calistoga	28.0	12.2		P	A	03/26/80
475	Well 9N/7W-36 M	WW	N	38.5907	122.5857	NAP	Calistoga	21.0	9.8	45	P	A	03/26/80

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
476	Unnamed Well	WW	N	38.5908	122.5853	NAP	Calistoga	35.0	36.6	38	P	A	03/26/80
477	Unnamed Well	WW	N	38.5928	122.5867	NAP	Calistoga	36.0	30.5		P	A	03/26/80
478	Unnamed Well	WW	N	38.5927	122.5828	NAP	Calistoga	44.0	0.0		P	A	03/26/80
479	Unnamed Well	WW	N	38.5758	122.5508	NAP	Calistoga	41.0	83.8		P	A	03/27/80
480	Unnamed Well	WW	N	38.6008	122.5822	NAP	Calistoga	20.5	36.6	38	P	A	03/27/80
481	Unnamed Well	WW	N	38.5975	122.5813	NAP	Calistoga	25.0	33.5		P	I	03/28/80
482	Unnamed Well	WW	N	38.5825	122.5615	NAP	Calistoga	24.0	38.1		P	E	03/28/80
483	Unnamed Well	WW	N	38.5747	122.5592	NAP	Calistoga	26.0	121.9	11	P	E	03/28/80
484	Unnamed Well	WW	N	38.5860	122.5620	NAP	Calistoga	22.0	42.4		P	A	03/28/80
485	Unnamed Well	WW	N	38.5847	122.5630	NAP	Calistoga	20.0	30.5		P		03/28/80
486	Unnamed Well	WW	N	38.5913	122.5772	NAP	Calistoga	28.0			P	A	03/28/80
487	Unnamed Well	WW	N	38.5932	122.5957	NAP	Calistoga	33.0	61.0	114	F	B,E	03/28/80
488	Nance's Hot Sps. Well	WW	N	38.5815	122.5763	NAP	Calistoga	93.0	67.1		P	B	04/15/80
489	Calistoga Spa Cold Well 2	WW	N	38.5783	122.5760	NAP	Calistoga	22.0	25.9		P	A	04/15/80
490	Calistoga Spa Hot Well 2	WW	N	38.5787	122.5752	NAP	Calistoga	60.0	42.7		P	B	04/15/80
491	Calistoga Spa Main Well	WW	N	38.5783	122.5753	NAP	Calistoga	85.0	71.6		P	B	04/15/80
492	Pacheteau Well	SW	Y	38.5822	122.5738	NAP	Calistoga	95.0	46.0	1968			
493	Pacheteau's "Well 1"	WW	N	38.5823	122.5740	NAP	Calistoga	95.0	46.3	750	F	B	04/15/80
494	Pacheteau's "Well 2"	WW	N	38.5825	122.5738	NAP	Calistoga	96.0	50.0	750	F	B	04/15/80
495	Pacheteau's "Well 3"	WW	N	38.5823	122.5737	NAP	Calistoga	94.0	54.3		F	A,B,C	04/15/80
496	Dr. Wilkinson's Hot Sps.	WW	N	38.5803	122.5768	NAP	Calistoga	122.0	57.9		P	B	04/15/80
497	Unnamed Well	WW	N	38.5783	122.5742	NAP	Calistoga	25.0	56.4			A	04/16/80
498	Unnamed Well	WW	N	38.5782	122.5753	NAP	Calistoga	66.0	55.5		P	A	04/16/80
499	Unnamed Well	WW	N	38.5773	122.5728	NAP	Calistoga	34.0	51.8		P	A	04/16/80
500	Unnamed Well	WW	N	38.5772	122.5735	NAP	Calistoga	45.0			P	A	04/16/80

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
501	Roman Spa "Well 1"	WW	N	38.5792	122.5787	NAP	Calistoga	44.0	76.2		P	B	04/16/80
502	Roman Spa "Well 2"	WW	N	38.5792	122.5788	NAP	Calistoga	76.0	106.7		P	B	04/16/80
503	Unnamed Well	WW	N	38.5823	122.5758	NAP	Calistoga	60.0	21.3		P	A	04/16/80
504	Unnamed Well	WW	N	38.5810	122.5785	NAP	Calistoga	57.0	0.0			A	04/16/80
505	Hideway Hot Sps. Well 1	WW	N	38.5825	122.5785	NAP	Calistoga	51.0	36.6		P	A	04/16/80
506	Hideway Hot Sps. Well 2	WW	N	38.5822	122.5793	NAP	Calistoga	28.0	10.7		P	A	04/17/80
507	Napa Val. Sps. Bottle Co.	WW	N	38.5833	122.5757	NAP	Calistoga	104.0	63.1	49	P	J	04/17/80
508	Unnamed Well	WW	N	38.5772	122.5742	NAP	Calistoga	30.0	0.0		P	A	04/17/80
509	Unnamed Well	WW	N	38.5775	122.5738	NAP	Calistoga	57.0	62.5		P	A	04/18/80
510	Mt. View Hotel	WW	N	38.5792	122.5780	NAP	Calistoga	85.0	70.1		P	I	04/18/80
511	Unnamed Well	WW	N	38.5750	122.5778	NAP	Calistoga	35.0	61.0	265	P	A	04/18/80
512	Unnamed Well	WW	N	38.5827	122.5872	NAP	Calistoga	41.0	57.0	64	P	A	04/18/80
513	Unnamed Well	WW	N	38.5850	122.5558	NAP	Calistoga	43.0	82.3	114	P	A	04/22/80
514	Unnamed Well	WW	N	38.5747	122.5513	NAP	Calistoga	20.0	61.0				04/22/80
515	Unnamed Well	WW	N	38.5842	122.5548	NAP	Calistoga	27.0	74.7		P	A	04/25/80
516	Unnamed Well	WW	N	38.5840	122.5552	NAP	Calistoga	25.0	38.1	132	P	A	04/30/80
517	Unnamed Well	WW	N	38.5665	122.5647	NAP	Calistoga	23.0	64.6	36	P	A	04/30/80
518	Unnamed Well	WW	N	38.5725	122.5692	NAP	Calistoga	27.0	73.2		P	A	04/30/80
519	Unnamed Well	WW	N	38.5853	122.6010	NAP	Calistoga	21.0	0.0			E	05/01/80
520	Unnamed Well	WW	N	38.5815	122.5962	NAP	Calistoga	20.0	64.6	95	P	A	05/02/80
521	Unnamed Well	WW	N	38.5852	122.5998	NAP	Calistoga	20.0	16.8		P		05/02/80
522	Unnamed Well	WW	N	38.5843	122.5545	NAP	Calistoga	30.0	77.7	261	P	A	05/07/80
523	Unnamed Well	WW	N	38.5840	122.5543	NAP	Calistoga	28.0	70.1	61	P	A	05/07/80
524	Unnamed Well	WW	N	38.5858	122.6040	NAP	Calistoga	20.0	91.4	45	P	E	05/08/80
525	Unnamed Well	WW	N	38.5833	122.6067	NAP	Calistoga	35.0	131.1	95	P	A	05/08/80

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
526	Unnamed Well	WW	N	38.5567	122.5237	NAP	Calistoga	20.0	54.9		P	A,E	05/08/80
527	Unnamed Well	WW	N	38.5563	122.5222	NAP	Calistoga	20.0	48.8		P	A,E	05/08/80
528	Unnamed Well	WW	N	38.5707	122.5142	NAP	Calistoga	20.0	42.7		P	A	05/09/80
529	Unnamed Well	WW	N	38.5760	122.5167	NAP	Calistoga	21.0	61.0		P	A	05/09/80
530	Unnamed Well	WW	N	38.5763	122.5187	NAP	Calistoga	40.0	106.7	38	P	A	05/09/80
531	Unnamed Well	WW	N	38.5938	122.6065	NAP	Calistoga	22.0	146.3	132	P	A	05/10/80
532	Unnamed Well	WW	N	38.5917	122.6110	NAP	Calistoga	21.0	56.7	151	P		05/10/80
533	Unnamed Well	WW	N	38.5777	122.5257	NAP	Calistoga	30.0	48.8		P	A	05/16/80
534	Unnamed Well	WW	N	38.5882	122.5803	NAP	Calistoga	85.0	64.9	64	P	A	05/16/80
535	Unnamed Well	WW	N	38.5878	122.5795	NAP	Calistoga	55.0	86.9	26	P	A	05/16/80
536	Unnamed Well	WW	N	38.5988	122.6075	NAP	Calistoga	20.0	46.0		P	A	05/21/80
537	Unnamed Well	WW	N	38.5970	122.6158	NAP	Calistoga	20.0	30.5		P	A	05/22/80
538	Unnamed Well	WW	N	38.5948	122.6145	NAP	Calistoga	20.0	33.5	95	P	A	05/22/80
539	Unnamed Well	WW	N	38.5943	122.6147	NAP	Calistoga	20.0	30.5	57	P	E	05/23/80
540	Unnamed Well	WW	N	38.5937	122.6128	NAP	Calistoga	20.0	36.6	76	P	A	05/25/80
541	Unnamed Well	WW	N	38.5503	122.5375	NAP	Calistoga	22.0	73.2		P	A	05/25/80
542	Unnamed Well	WW	N	38.5620	122.5382	NAP	Calistoga	20.0	79.2		P	A	05/28/80
543	Unnamed Well	WW	N	38.5887	122.5968	NAP	Calistoga	33.0	64.0		F	A,B,C	05/29/80
544	Unnamed Well	WW	N	38.5925	122.5920	NAP	Calistoga	27.0	45.7		P	A	05/30/80
545	Unnamed Well	WW	N	38.5650	122.5355	NAP	Calistoga	23.0	54.9		P	A,E	06/01/80
546	Unnamed Well	WW	N	38.5760	122.5295	NAP	Calistoga	55.0	54.9	13	P	A	06/01/80
547	La Vida Mnr. Sp. Well	SW	Y	33.9350	117.7917	ORA	Yorba Linda	43.0		76			
548	Well 3S/9W-22C2 S	WW	Y	33.9025	117.8125	ORA	Yorba Linda	73.0					
549	Seguro No.1 Well	X	Y	33.6895	118.0062	ORA	Huntington Beach	218.0	2777.0				
550	Obrien Porter No.2 Well	X	Y	33.6842	117.9983	ORA	Huntington Beach	H					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
551	McCasden Well	X	Y	33.6688	118.0137	ORA	Huntington Beach	H					
552	Beloil Davenport Well	X	Y	33.6750	117.9958	ORA	Newport Beach	H					
553	Fairview Hot Sp. Well	SW	Y	33.6733	117.9183	ORA	Newport Beach	36.0		57			
554	Well 5S/9W-34Q1 S	WW	Y	33.6883	117.8035	ORA	Irvine	30.0					
555	Well 7S/8W-16Q1 S	WW	Y	33.5567	117.7167	ORA	San Juan Capistrano	28.0					
556	Unnamed Spring	SP	Y	33.5137	117.6043	ORA	San Juan Capistrano	35.0					
557	San Juan Hot Springs	SP	Y	33.5890	117.5003	ORA	San Juan Capistrano	49.0		57			
558	Brockway Hot Springs	SP	Y	39.2273	120.0133	PLA	N. Lake Tahoe	55.0		600	F	B	05/18/82
559	Unnamed Spring	SP	Y	40.4425	121.4125	PLU	Lassen	28.0		30			
560	Devil's Kitchen	SP	Y	40.4413	121.4333	PLU	Lassen	95.0					
561	Terminal Geyser	SP	Y	40.4213	121.3767	PLU	Lassen	96.0		30			
562	Drake Hot Springs	SP	Y	40.4425	121.4025	PLU	Lassen	66.0		76			
563	Boiling Springs Lake	SP	Y	40.4357	121.3967	PLU	Lassen	88.0					
564	Terminal Geyser Well	X	Y	40.4208	121.3767	PLU	Lassen	129.0	387.0				
565	Indian Valley Hot Sps.	SP	Y	40.1413	120.9337	PLU	Greenville	41.0		30			
566	Indian Val. Hosp., GRN-1	NLT	Y	40.1441	120.9445	PLU	Greenville	47.2	165.5	946			
567	Plumas Sch. Dist., GHS-1	NLT	Y	40.1397	120.9446	PLU	Greenville	34.4	198.0	38	F		
568	Warm Sps. at Twain	SP	Y	40.0187	121.0358	PLU	Quincy	38.0		19	F	B	05/01/82
569	White Sulfur Springs	SP	Y	39.7283	120.5475	PLU	Portola	27.0		95	F	B,C	05/02/82
570	Marble Hot Wells	WW	Y	39.7565	120.3583	PLU	Sierra Valley	73.0	109.0	95	F	B,E	05/03/82
571	Well 22N/14E-25H1 M	WW	Y	39.7310	120.3533	PLU	Sierra Valley	38.0	7.0	40			
572	Well 22N/15E-17C3 M	WW	Y	39.7650	120.3242	PLU	Sierra Valley	29.0	290.0				
573	Well 23N/15E-36J2 M	WW	Y	39.8008	120.2408	PLU	Sierra Valley	26.0	190.0	4			
574	Well 22N/15E-23C1 M	WW	Y	39.7500	120.2700	PLU	Sierra Valley	28.0	232.0				
575	Well 22N/15E-28L1 M	WW	Y	39.7292	120.3055	PLU	Sierra Valley	32.0					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
576	W. Hagge Well No.1	WW	Y	39.7217	120.3217	PLU	Sierra Valley	40.0		3			
577	Well 22N/15E-32F1 M	WW	Y	39.7158	120.3242	PLU	Sierra Valley	94.0	335.0	50			
578	Well 22N/15E-32R1 M	WW	Y	39.7092	120.3167	PLU	Sierra Valley	52.0	274.0				
579	Well 22N/15E-33M1 M	WW	Y	39.7153	120.3100	PLU	Sierra Valley	32.0					
580	Glen Ivy Hot Sp. Well	SW	Y	33.7562	117.4945	RIV	Glen Ivy Hot Sp.	55.0					
581	Well 3S/7W-11F1 S	WW	Y	33.9250	117.5875	RIV	Norco	48.0	280.0				
582	Well 3S/3W-2L1 S	WW	Y	33.9388	117.1650	RIV	San Jacinto	27.0					
583	Well 3S/2W-7P1 S	WW	Y	33.9200	117.1333	RIV	San Jacinto	40.0					
584	Highland Springs	SP	Y	33.9695	116.9417	RIV	Banning	44.0					
585	Eden Hot Springs	SP	Y	33.8967	117.0542	RIV	San Jacinto	43.0		114			
586	Unnamed Spring	SP	Y	33.8658	117.0993	RIV	San Jacinto	W					
587	Lakeview Hot Springs	SP	Y	33.8378	117.1445	RIV	San Jacinto	38.0					
588	Gilman Hot Springs	SP	Y	33.8350	116.9867	RIV	San Jacinto	47.0		76			
589	Soboba Hot Springs	SP	Y	33.8008	116.9267	RIV	San Jacinto	40.0		40	F	I	01/27/81
590	Well 5S/1E-5M2 S	WW	Y	33.7633	116.9067	RIV	San Jacinto	49.0					
591	Well 5S/1W-16C1 S	WW	Y	33.7417	116.9917	RIV	Hemet	39.0					
592	Wrenden Hot Springs	SP	Y	33.6692	117.3275	RIV	Lake Elsinore	48.0					
593	Elsinore Hot Springs	SW	Y	33.6695	117.3287	RIV	Lake Elsinore	45.0		8	I	B	07/02/81
594	Lake Elsinore,"GW" 1	CLT	N	33.6691	117.3268	RIV	Lake Elsinore	W	150.0				
595	Lake Elsinore,"GW" 2	CLT	N	33.6706	117.3251	RIV	Lake Elsinore	W	150.0				
596	Lake Elsinore,"GW" 3	CLT	Y	33.6683	117.3281	RIV	Lake Elsinore	29.5	183.0				
597	Well 6S/2W-10D1 S	WW	Y	33.6705	117.0823	RIV	Murrieta Springs	37.0	34.0				
598	Unnamed Well	WW	Y	33.6708	117.0637	RIV	Murrieta Springs	37.0					
599	Well 5S/1W-32Q1 S	WW	Y	33.6858	117.0022	RIV	Murrieta Springs	28.0	27.0				
600	Well 6S/1W-4J2 S	WW	Y	33.6783	116.9795	RIV	Murrieta Springs	43.0	40.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
601	Well 6S/2W-10E1 S	WW	Y	33.6667	117.0828	RIV	Murrieta Springs	49.0	6.0				
602	Well 6S/2W-15D1 S	WW	Y	33.6555	117.0825	RIV	Murrieta Springs	25.0	5.0				
603	Well 6S/4W-34J2 S	WW	Y	33.6045	117.2753	RIV	Lake Elsinore	40.0	43.0				
604	Well 6S/4W-35D1 S	WW	Y	33.6122	117.2740	RIV	Lake Elsinore	43.0	60.0				
605	Temecula Hot Springs	SP	Y	33.5533	117.1675	RIV	Temecula	47.0					
606	Well 8S/3W-7D3 S	WW	Y	33.5033	117.2392	RIV	Temecula	29.0					
607	Murrieta Hot Springs	SP	Y	33.5588	117.1572	RIV	Murrieta Springs	54.0			F	B	07/04/81
608	Well 7S/2W-3N1 S	WW	Y	33.5838	117.0828	RIV	Murrieta Springs	40.0					
609	Well 7S/2W-2P2 S	WW	Y	33.5862	117.0573	RIV	Murrieta Springs	37.0					
610	Unnamed Spring	SP	Y	33.5417	116.7417	RIV	Cahuilla	W					
611	Agua Caliente Spring	SP	Y	33.8250	116.5447	RIV	Palm Springs	41.0				B,C	06/30/81
612	Unnamed Well	WW	Y	33.9083	116.3717	RIV	Desert Hot Springs	49.0					
613	Unnamed Well	WW	Y	33.8992	116.3633	RIV	Desert Hot Springs	44.0	131.0				
614	Well 5S/6E-24N2 S	WW	Y	33.7177	116.3165	RIV	Indian Wells	28.0	109.0				
615	Well 7S/9E-18M1 S	WW	Y	33.5617	116.0925	RIV	N.W. Salton Sea	32.0					
616	Well 8S/8E-10B1 S	WW	Y	33.4958	116.1375	RIV	N.W. Salton Sea	33.0					
617	Well 8S/8E-13Q1 S	WW	Y	33.4700	116.1033	RIV	N.W. Salton Sea	32.0					
618	Well 8S/9E-29Q1 S	WW	Y	33.4412	116.0692	RIV	N.W. Salton Sea	43.0					
619	Well 8S/9E-29R1 S	WW	Y	33.4408	116.0642	RIV	N.W. Salton Sea	39.0					
620	Dos Palmas Spring	SP	Y	33.5108	115.8262	RIV	Dos Palmas Spring	29.0		1136			
621	Aqua Farms,"Aqua" 1	CLT	N	33.5088	115.8315	RIV	Dos Palmas Spring	W	305.0				
622	Aqua Farms."Aqua" 2	CLT	N	33.5074	115.8303	RIV	Dos Palmas Spring	W	152.0				
623	Aqua Farms,"Aqua" 3	CLT	Y	33.5074	115.8327	RIV	Dos Palmas Spring	W	64.6				
624	Hunter's Spring Wells	WW	Y	33.4883	115.7908	RIV	Dos Palmas Spring	32.0					
625	Canyon Spring	SP	Y	33.5452	115.6533	RIV	Canyon Spring	36.0					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
626	Kaiser North Well	X	Y	33.9417	115.4167	RIV	Eagle Mountain Mine	29.0					
627	Thurman Ragsdale Well	WW	Y	33.8250	115.4250	RIV	Desert Center	40.0	183.0				
628	Stanley Ragsdale Well	WW	Y	33.7125	115.4042	RIV	Desert Center	33.0	183.0				
629	Sunland Oil Well	X	Y	33.7058	115.4400	RIV	Desert Center	30.0	198.0				
630	Lazy C Trailer Park Well	WW	Y	33.7408	115.3700	RIV	Desert Center	30.0					
631	Cal Trans Well	WW	Y	33.7133	115.4082	RIV	Desert Center	32.0			P	A	01/25/82
632	S.D. Trailer Park Well	WW	Y	33.7167	115.3958	RIV	Desert Center	34.0	152.0				
633	Morrison Well	WW	Y	33.7490	115.3560	RIV	Desert Center	36.0		3780	P	E	01/25/82
634	Desert Ctr. Airport Well	WW	Y	33.7533	115.3317	RIV	Desert Center	30.0	69.0				
635	Corn Spring	SP	Y	33.6250	115.3247	RIV	Desert Center	22.0					
636	McCoy Spring	SP	Y	33.7330	114.9067	RIV	McCoy Spring	28.0					
637	Wiley Well	WW	Y	33.6092	114.9017	RIV	Wileys Well Rd.	48.0	518.0				
638	L.C. Winters Well	WW	Y	33.6958	114.6767	RIV	Blythe	31.0	116.0				
639	Well 6S/22E-9P1 S	WW	Y	33.6625	114.6858	RIV	Blythe	32.0	84.0				
640	Well 6S/22E-20A1 S	WW	Y	33.6458	114.6942	RIV	Blythe	31.0	84.0				
641	Riverside Co. Airport (W)	WW	Y	33.6117	114.7083	RIV	Blythe	31.0					
642	Mesa Verde Well	WW	Y	33.6167	114.7333	RIV	Nicholls Warm Sps.	31.0	110.0				
643	Nicholls Warm Sps. Well	SW	Y	33.6033	114.7278	RIV	Nicholls Warm Sps.	33.0	195.0				
644	Blythe-Mesa Verde Well	SW	Y	33.6020	114.7180	RIV	Nicholls Warm Sps.	30.0		491		A	01/24/82
645	Basha # 3 Well	X	Y	33.5683	115.7458	RIV	Blythe	45.0	417.0				
646	Bill Passey Well	WW	Y	33.6042	115.6923	RIV	Blythe	31.0	171.0				
647	Basha # 1 Well	X	Y	33.6258	114.6800	RIV	Blythe	31.0		8422			
648	E. Weeks Well	WW	Y	33.6467	114.6625	RIV	Blythe	33.0	178.0				
649	E. Fortner Well	WW	Y	33.6958	114.6583	RIV	Blythe	31.0	123.0				
650	Blythe-Julian Well	WW	Y	33.6948	114.6533	RIV	Blythe	29.0		1890	P	A,E	01/24/82

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
651	Lucky 7 Well	WW	Y	33.9258	116.4408	RIV	Desert Hot Springs	93.0	101.0				
652	"Pratt" 1	NLT	N	33.9248	116.4369	RIV	Desert Hot Springs	W	77.0				
653	"Mohnsen" 1	NLT	N	33.9397	116.4650	RIV	Desert Hot Springs	30.6	113.4				
654	"Sky Valley" No. 1	NLT	N	33.9242	116.4127	RIV	Desert Hot Springs	61.7	158.5				
655	"Segal" 1	NLT	N	33.9363	116.4670	RIV	Desert Hot Springs	W	100.6	57			
656	"Linda Vista Lodge" 1	CLT	Y	33.9480	116.4879	RIV	Desert Hot Springs	70.0	91.0				
657	King Spa Well	WW	Y	33.4375	115.6900	RIV	Hot Mineral Spa	79.0	106.0				
658	New Pilger Hot Mnr. Well	WW	Y	33.4275	115.6867	RIV	Hot Mineral Spa	82.0					
659	"Leiss" No. 1	CLT	N	33.4300	115.6899	RIV	Hot Mineral Spa	63.0	164.6				
660	"Leiss" No. 2	CLT	N	33.4286	115.6897	RIV	Hot Mineral Spa	63.0	33.5				
661	San Benito Mnr. Well	WW	Y	36.8155	121.3528	SBT	Hollister	24.0	87.0	76			
662	Sulfur Springs	SP	Y	36.2945	120.9853	SBT	Bitterwater	23.0		189			
663	M.H. Morris Well	X	Y	35.7750	117.3600	SBD	Trona	30.0					
664	Saratoga Spring	SP	Y	35.6818	116.4217	SBD	Saratoga Spring	28.0		475			
665	Sheep Creek Spring	SP	Y	35.5892	116.3583	SBD	Silver Lake	23.0					
666	Magma Power Co. Well	X	Y	35.3843	117.5362	SBD	Randsburg	96.0	236.0				
667	Paradise Spring	SP	Y	35.1433	116.8137	SBD	Fort Irwin	40.0		104			
668	Soda Station Sps.	SP	Y	35.1422	116.1050	SBD	Barker	24.0		189			
669	Newberry Spring	SP	N	34.8263	116.6763	SBD	Barstow	25.0		1192	D		
670	Flamingo Well	WW	Y	34.9555	114.8388	SBD	Needles	39.0					
671	Unnamed Well	WW	Y	34.8417	114.9750	SBD	Needles	33.0	317.0				
672	Roy Lye Well No.1	WW	Y	34.0995	114.4500	SBD	Vidal	27.0		2646		E	01/22/82
673	Well 1S/24E-10N1 S	WW	Y	34.0950	114.4533	SBD	Vidal	30.0	101.0				
674	Roy Lye Well No.2	WW	Y	34.0907	114.4628	SBD	Vidal	30.0		1323		E	01/22/82
675	Well 1S/24E-16B1 S	WW	Y	34.0917	114.4600	SBD	Vidal	42.0	69.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
676	Well 2N/7E-3B1 S	WW	Y	34.2937	116.2367	SBD	Twentynine Palms	27.0					
677	Well 1N/8E-2N1 S	WW	Y	34.1942	116.1217	SBD	Twentynine Palms	53.0					
678	Jewell Well	WW	Y	34.1798	116.0648	SBD	Twentynine Palms	32.0	36.0	500	P	C	01/25/81
679	Zuncich Well	WW	Y	34.1718	116.0987	SBD	Twentynine Palms	39.0	120.0	800	P	A	01/25/81
680	Well 1N/9E-29F1 S	WW	Y	34.1450	116.0633	SBD	Twentynine Palms	48.0					
681	Well 1N/9E-14C1 S	WW	Y	34.1783	116.0117	SBD	Twentynine Palms	63.0					
682	Well 1N/5E-12D1 S	WW	Y	34.1917	116.4192	SBD	Yucca Valley	42.0	145.0				
683	Pan Hot Spring	SW	Y	34.2717	116.8375	SBD	Big Bear Lake	32.0			P	B	11/14/80
684	Unnamed Spring	SP	Y	34.3410	117.1690	SBD	Lake Arrowhead	38.0		19			
685	Unnamed Spring	SP	Y	34.3392	117.1760	SBD	Lake Arrowhead	42.0		19			
686	Tylers Bath (Spring)	SP	Y	34.2305	117.4838	SBD	Lytle Creek	33.0					
687	Waterman Hot Spring	SP	N	34.1892	117.2710	SBD	San Bernardino	51.0		19			
688	Waterman Hot Springs	SP	Y	34.1892	117.2710	SBD	San Bernardino	78.0		19	F	I	
689	Waterman Hot Springs (W)	SW	Y	34.1887	117.2710	SBD	San Bernardino	81.0		150	F	I	04/22/81
690	Arrowhead Hot Springs	SP	N	34.1870	117.2630	SBD	Arrowhead Hot Sps.	90.0		190			
691	Arrowhead Hot Springs (W)	SW	Y	34.1870	117.2647	SBD	Arrowhead Hot Sps.	84.0		189	F		04/22/81
692	"Granite Hot Spring"	SP	N	34.1868	117.2645	SBD	Arrowhead Hot Sps.	81.0		38	F		
693	"Penyugal Hot Spring"	SP	N	34.1872	117.2633	SBD	Arrowhead Hot Sps.	87.0			F		
694	"Palm Hot Spring"	SP	N	34.1870	117.2612	SBD	Arrowhead Hot Sps.	82.0			F		
695	"Mud Bath Well"	SW	Y	34.1870	117.2612	SBD	Arrowhead Hot Sps.	84.0			F		04/22/81
696	"Hot Well"	WW	Y	34.1897	117.2610	SBD	Arrowhead Hot Sps.	29.0					07/28/76
697	Unnamed Springs	SP	Y	34.1220	117.0787	SBD	Redlands	32.0		11			
698	Harlem Hot.Springs Well	SW	N	34.1225	117.2247	SBD	San Bernardino	49.0					
699	Harlem Hot Sps.(R 385)	SW	N	34.1230	117.2247	SBD	San Bernardino	46.0	91.0				
700	Harlem Hot Springs Well	SW	Y	34.1230	117.2247	SBD	San Bernardino	49.0					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
701	Well (State # E-53h)	SW	Y	34.1227	117.2245	SBD	San Bernardino	54.0	59.0				
702	Well (State # E-50h)	SW	N	34.1227	117.2252	SBD	San Bernardino	H	88.0				
703	Well 1N/3W-32N3 S	WW	Y	34.1233	117.2250	SBD	San Bernardino	54.0	59.0				
704	Well 1N/3W-33M1 S	WW	Y	34.1267	117.2050	SBD	San Bernardino	51.0	152.0				
705	Urbita Hot Sps. Well	SW	N	34.0867	117.2958	SBD	San Bernardino	41.0		760			
706	Urbita Springs Well	WW	N	34.0875	117.2972	SBD	San Bernardino	W	112.0	757			
707	Urbita Hot Sps. Wells	WW	Y	34.0868	117.2958	SBD	San Bernardino	41.0					
708	Well 1S/4W-15L3 S	WW	Y	34.0833	117.2875	SBD	San Bernardino	41.0					
709	Patton Hospital #14	WW	Y	34.1413	117.2203	SBD	San Bernardino	25.0	152.0		P		04/21/81
710	Patton Hospital #10	WW	N	34.1372	117.2242	SBD	San Bernardino	22.0	128.0		P		
711	Patton Hospital #11	WW	N	34.1343	117.2207	SBD	San Bernardino	40.0	134.0		P		04/21/81
712	Well (R 375)	WW	N	34.1355	117.2372	SBD	San Bernardino	22.0	140.0				
713	Well 1N/3W-31L4 S	WW	N	34.1283	117.2343	SBD	San Bernardino	H	30.0				
714	Patton Hospital #9	WW	Y	34.1268	117.2343	SBD	San Bernardino	36.0	140.0				12/10/71
715	Well (R 361)	WW	N	34.1232	117.2280	SBD	San Bernardino	30.0	21.0				
716	Well (State # E-50m)	WW	Y	34.1222	117.2287	SBD	San Bernardino	52.0	61.0				
717	Base Line Laundry Well	WW	Y	34.1225	117.2322	SBD	San Bernardino	28.0			P	A	04/22/81
718	Well 1S/3W-6C3 S	WW	N	34.1208	117.2350	SBD	San Bernardino	43.0	42.0				
719	Well (R 327)	WW	N	34.1208	117.2442	SBD	San Bernardino	27.0	56.0				
720	Well (R 328)	WW	N	34.1203	117.2433	SBD	San Bernardino	24.0	52.0				
721	Well (R 329)	WW	N	34.1187	117.2427	SBD	San Bernardino	22.0	70.0				
722	Well (R 330)	WW	N	34.1172	117.2427	SBD	San Bernardino	20.0	45.7				
723	E.S.B.C.W.D. No.6	WW	N	34.1218	117.2492	SBD	San Bernardino	41.0	212.0				
724	"Bone Yard Well"	WW	Y	34.1187	117.2487	SBD	San Bernardino	49.5	216.0				
725	"Palm Well #1"	WW	N	34.1252	117.2073	SBD	San Bernardino	31.0	152.0				01/31/72

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
726	Well 1S/3W-4C1 S	WW	N	34.1210	117.1998	SBD	San Bernardino	23.0	134.0				
727	Dunkirk #1	WW	N	34.1172	117.1990	SBD	San Bernardino	21.0	124.0		P		01/28/75
728	Dunkirk #2	WW	N	34.1170	117.1993	SBD	San Bernardino	21.0	119.0		P		01/28/75
729	Well 1S/4W-8Q3 S	WW	N	34.0942	117.3178	SBD	San Bernardino	W	137.0				
730	Well 1S/4W-8R2 S	WW	N	34.0948	117.3167	SBD	San Bernardino	W	133.0				
731	Well (R 297)	WW	N	34.0925	117.3123	SBD	San Bernardino	32.0	137.5		F		
732	Colton #12	WW	Y	34.0927	117.3125	SBD	San Bernardino	31.0	275.6		F	I	04/27/81
733	Well 1S/4W-9J1 S	WW	N	34.0978	117.3002	SBD	San Bernardino	22.0	154.9				
734	Well 1S/4W-10E1 S	WW	N	34.0997	117.2928	SBD	San Bernardino	32.0	77.0				
735	Well (State # E-92y)	WW	N	34.0992	117.2918	SBD	San Bernardino	29.0	241.0				
736	Well (State # E-29a)	WW	N	34.1022	117.2907	SBD	San Bernardino	27.0	324.7				
737	"Mill & D St. Well"	WW	N	34.0925	117.2913	SBD	San Bernardino	21.0	169.8		F		04/28/81
738	"Mill & D" 2	CLT	Y	34.0927	117.2914	SBD	San Bernardino	58.0	284.0		F	D	
739	Well 1S/4W-16G5 S	WW	N	34.0885	117.3033	SBD	San Bernardino	H					
740	Well (234)	WW	N	34.0823	117.3068	SBD	San Bernardino	29.0	48.2				
741	De Sienna Hot Sp. Well	WW	N	34.0817	117.3067	SBD	San Bernardino	30.0	166.8				
742	Well 1S/4W-16L3 S	WW	N	34.0823	117.3048	SBD	San Bernardino	42.0	182.9				
743	Well (23)	WW	N	34.0840	117.2982	SBD	San Bernardino	37.0	36.9				
744	Well (19)	WW	N	34.0823	117.2978	SBD	San Bernardino	22.0	68.6				
745	Well 1S/4W-16J2 S	WW	N	34.0825	117.2973	SBD	San Bernardino	41.0	53.4				
746	Meeks & Daly Coburn Well	WW	N	34.0823	117.2988	SBD	San Bernardino	26.0	213.0				04/24/81
747	Meeks & Daly #69	WW	N	34.0815	117.2982	SBD	San Bernardino	32.0	244.0				
748	Well 1S/4W-16Q1 S	WW	N	34.0802	117.3012	SBD	San Bernardino	W	27.7				
749	Meeks & Daly New E	WW	N	34.0817	117.2942	SBD	San Bernardino	23.0	274.0				
750	Meeks & Daly Old E	WW	N	34.0817	117.2938	SBD	San Bernardino	W	184.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
751	Meeks & Daly #51	WW	N	34.0797	117.2942	SBD	San Bernardino	25.0	262.2				
752	Well 1S/4W-21A1 S	WW	N	34.0752	117.2962	SBD	San Bernardino	W	89.0				
753	Well (State # E-39v)	WW	N	34.1052	117.2775	SBD	San Bernardino	23.0	349.4				
754	Well (465)	WW	N	34.1102	117.2682	SBD	San Bernardino	20.0	165.9				
755	Well (315)	WW	N	34.1043	117.2563	SBD	San Bernardino	20.0	207.9				
756	Meeks & Daly #66	WW	Y	34.0862	117.2890	SBD	San Bernardino	56.0	297.3		F	D	04/23/81
757	"Byrne Well"	WW	N	34.0775	117.2868	SBD	San Bernardino	30.0	335.4				
758	Meeks & Daly #59	WW	N	34.0818	117.2865	SBD	San Bernardino	43.0	350.6		F		04/23/81
759	Well (State # E-98e)	WW	N	34.0767	117.2837	SBD	San Bernardino	29.0	362.2				
760	Well (State # E-130h)	WW	N	34.0763	117.2812	SBD	San Bernardino	22.0	226.8				
761	Well 1S/4W-22A1 S	WW	N	34.0762	117.2805	SBD	San Bernardino	29.0	196.0				04/23/81
762	"Thorn # 12"	WW	N	34.0770	117.2837	SBD	San Bernardino	24.0	199.4				
763	Well (252)	WW	N	34.0803	117.2717	SBD	San Bernardino	20.0	25.3				
764	Well 1S/4W-23C2 S	WW	N	34.0762	117.2715	SBD	San Bernardino	W	363.4				
765	Well (121)	WW	N	34.0738	117.2640	SBD	San Bernardino	21.0	59.8				
766	Well (122)	WW	N	34.0745	117.2638	SBD	San Bernardino	21.0	57.9				
767	Well (123)	WW	N	34.0752	117.2637	SBD	San Bernardino	21.0	43.3				
768	Well (124)	WW	N	34.0767	117.2623	SBD	San Bernardino	20.0	46.3				
769	Well (126)	WW	N	34.0782	117.2587	SBD	San Bernardino	20.0	55.2				
770	Well (127)	WW	N	34.0798	117.2575	SBD	San Bernardino	21.0	129.9				
771	Well (128)	WW	N	34.0807	117.2570	SBD	San Bernardino	21.0	143.9				
772	Well (112)	WW	N	34.0802	117.2523	SBD	San Bernardino	44.0	195.7				
773	Well (106)	WW	N	34.0740	117.2565	SBD	San Bernardino	23.0	157.6				
774	Well (104)	WW	N	34.0737	117.2522	SBD	San Bernardino	21.0	154.3				
775	Well (017)	WW	N	34.0692	117.2925	SBD	San Bernardino	23.0	24.7				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
776	Well (053)	WW	N	34.0695	117.2895	SBD	San Bernardino	22.0	20.7				
777	Well (018)	WW	N	34.0685	117.2922	SBD	San Bernardino	23.0	28.0				
778	Well 1S/4W-22G2 S	WW	N	34.0722	117.2852	SBD	San Bernardino	W					
779	Well 1S/4W-22H3 S	WW	N	34.0728	117.2788	SBD	San Bernardino	51.0	259.8		F		
780	Well 1S/4W-22H4 S	WW	N	34.0717	117.2782	SBD	San Bernardino	43.0	294.2		F		
781	Well 1S/4W-27A8 S	WW	N	34.0627	117.2783	SBD	San Bernardino	W	264.6				
782	Well (008)	WW	N	34.0598	117.2788	SBD	San Bernardino	20.0	38.1				
783	Well (120)	WW	N	34.0618	117.2700	SBD	San Bernardino	20.0	239.0				
784	Well (119)	WW	N	34.0607	117.2702	SBD	San Bernardino	23.0	98.5				
785	Well (118)	WW	N	34.0597	117.2703	SBD	San Bernardino	23.0	131.7				
786	Well (117)	WW	N	34.0588	117.2703	SBD	San Bernardino	23.0	177.4				
787	Well (116)	WW	N	34.0580	117.2703	SBD	San Bernardino	23.0	162.8				
788	Well 1S/4W-26F2 S	WW	N	34.0572	117.2737	SBD	San Bernardino	W	194.2				
789	Well (115)	WW	N	34.0535	117.2730	SBD	San Bernardino	24.0	200.0				
790	"Arroyo Verde Well" 1	WW	N	34.1182	117.2472	SBD	San Bernardino	H	197.6				
791	"Arroyo Verde Well" 2	WW	N	34.1182	117.2472	SBD	San Bernardino	W	91.5				
792	De Luz Warm Springs	SP	Y	33.4358	117.3250	SDG	De Luz	29.0		19			
793	Agua Tibia Sp. Well	SW	Y	33.3665	117.3910	SDG	Pala	36.0	217.0		P	A,E	02/03/82
794	Well 10S/1W-23N1 S	WW	Y	33.2878	116.9587	SDG	Rincon Springs	27.0					
795	Warner Hot Springs	SP	Y	33.2838	116.6308	SDG	Warner Hot Sps.	56.0		500	F	B,C	07/01/81
796	Well 12S/2W-17H1 S	WW	Y	33.1320	117.1028	SDG	Escondido	27.0					
797	Circ T Trailer Park Well	WW	N	33.1492	116.1825	SDG	Borrego Valley	37.0	95.0				
798	M.A. Smith Well	WW	Y	33.1562	116.1680	SDG	Borrego Valley	31.0	91.0				
799	E. Robinson Well	WW	N	33.1445	116.1342	SDG	Borrego Valley	37.0	64.0				
800	A. Toner Well	WW	Y	33.1450	116.1183	SDG	Borrego Valley	32.0	61.0				

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
801	A. Williams Well	WW	N	33.1258	116.1300	SDG	Borrego Valley	36.0	45.0				
802	Cornish Well	WW	Y	33.1058	116.1300	SDG	Borrego Valley	32.0	70.0				
803	De Anza Trail Inn Well	WW	N	33.1247	116.1308	SDG	Ocotillio Wells	36.0	100.0	264	P	A	02/02/82
804	C. Peterson Well	WW	Y	33.1387	116.1555	SDG	Borrego Valley	32.0	87.0				
805	Ironwood Motel Well	WW	Y	33.1495	116.1820	SDG	Borrego Valley	37.0	102.0				
806	Vallecitos Spring	SP	Y	32.9703	116.4230	SDG	Agua Caliente Sps.	26.0		19			
807	Agua Caliente Springs	SP	Y	32.9483	116.3040	SDG	Agua Caliente Sps.	37.0		56	F	B,C	02/02/82
808	Raymond Rasco Well	WW	Y	32.6200	116.1583	SDG	Jacumba	31.0	49.0				
809	Jacumba Hot Springs	SP	Y	32.6158	116.1922	SDG	Jacumba	38.0		57			
810	Henry Lazare Well	WW	Y	32.6162	116.2920	SDG	Jacumba	38.0	61.0				
811	Well 17S/5E-3R1 S	WW	Y	32.7203	116.4550	SDG	Morena Village	30.0					
812	Well 15S/1W-14Q1 S	WW	Y	32.8627	116.9510	SDG	Santee	31.0					
813	Well 16S/2W-16C1 S	WW	Y	32.7861	117.0940	SDG	San Diego	27.0					
814	Well 18S/2E-14E1 S	WW	Y	32.6088	116.7520	SDG	San Diego	27.0					
815	Well 18S/2W-28L1 S	WW	Y	32.5733	117.0933	SDG	San Diego	27.0					
816	Well 18S/2W-21H1 S	WW	Y	32.5917	117.0858	SDG	San Diego	28.0					
817	Well 18S/2W-28P1 S	WW	Y	32.5710	117.0945	SDG	San Diego	36.0	530.0				
818	Well 18S/2W-33L10 S	WW	Y	32.5583	117.0925	SDG	San Diego	36.0					
819	Well 18S/1W-31H1 S	WW	Y	32.5629	117.0163	SDG	San Diego	33.0	351.0				
820	Well 18S/1W-34N1 S	WW	Y	32.5563	116.9788	SDG	San Diego	28.0	431.0				
821	Well 19S/1W-3E1 S	WW	Y	32.5487	116.9750	SDG	San Diego	28.0	427.0				
822	Well 15S/2W-19D1 S	WW	N	32.8592	117.1330	SDG	San Diego	25.6					03/28/63
823	Well 15S/1W-27G1 S	WW	N	32.8404	116.9681	SDG	San Diego	27.8					07/27/54
824	Well 15S/1W-27G5 S	WW	N	32.8404	116.9681	SDG	San Diego	28.9					09/17/58
825	Well 16S/3W-16Q1 S	WW	N	32.7753	117.1931	SDG	San Diego	25.6					10/19/55

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
826	Well 16S/3W-16R1 S	WW	N	32.7755	117.1885	SDG	San Diego	25.6					10/19/55
827	Well 16S/2W-16D3 S	WW	N	32.7861	117.0983	SDG	San Diego	25.6					06/01/60
828	Well 16S/2W-18L1 S	WW	N	32.7787	117.1283	SDG	San Diego	27.8					06/02/65
829	Well 16S/3W-22P1 S	WW	N	32.7607	117.1797	SDG	San Diego	26.1					05/31/60
830	Well 17S/2W-4B1 S	WW	N	32.7278	117.0898	SDG	San Diego	25.6					07/22/54
831	Well 17S/2W-15J1 S	WW	N	32.6914	117.0680	SDG	San Diego	26.1					07/21/54
832	Well 18S/2W-24M1 S	WW	N	32.5892	117.0466	SDG	San Diego	28.3	88.4				07/26/56
833	Well 18S/2W-27G1 S	WW	N	32.5779	117.0728	SDG	San Diego	25.6					09/03/59
834	Well 19S/2W-1N6 S	WW	N	32.5414	117.0467	SDG	San Diego	25.6					11/19/62
835	Well 15S/3W-32 S	OIL	N	32.8220	117.2191	SDG	San Diego	73.3	1855.0				06/16/42
836	Rohr Ind.s 18S/2W-9F S	TG	Y	32.6219	117.0952	SDG	San Diego	33.1	348.5				01/81
837	Well 18S/2W-21 S	OIL	N	32.5865	117.0983	SDG	San Diego	60.0	1677.0				11/03/62
838	Well 18S/2W-32 S	OIL	N	32.5573	117.1059	SDG	San Diego	H	1934.0				04/18/35
839	Unnamed Well	WW	Y	32.5842	117.0873	SDG	San Diego	26.7	61.0				
840	Unnamed Well	WW	Y	32.5724	117.0927	SDG	San Diego	43.3	533.5				
841	Unnamed Well	WW	Y	32.5845	117.0696	SDG	San Diego	26.7	122.0				
842	Lone Tree Mnr. Spring	SP	Y	37.5732	121.4452	SJQ	S. San Joaquin Co.	22.0					
843	Unnamed Spring	SP	Y	37.5685	121.4462	SJQ	S. San Jacquin Co.	23.0		38			
844	Paso Robles Artesian Sp.	SP	Y	35.6625	120.6917	SLO	Paso Robles	39.0		380			
845	Paso Robles Mud Bath Sps.	SP	Y	35.6570	120.6945	SLO	Paso Robles	42.0		360			
846	Unnamed Spring	SP	Y	35.6492	120.6868	SLO	Paso Robles	42.0		760			
847	Well 26S/13E-11L1 M	WW	Y	35.6792	120.5433	SLO	Paso Robles	31.0	630.0				
848	Well 26S/12E-29C M	WW	Y	35.6447	120.7035	SLO	Paso Robles	32.7	185.0		I	E	07/06/81
849	Unnamed Well	WW	Y	35.6417	120.6458	SLO	Paso Robles	W					
850	Santa Ysabel Springs	SP	Y	35.5822	120.6645	SLO	Paso Robles	33.0		190			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
851	Paso Robles City Baths	SW	Y	35.6253	120.6880	SLO	Paso Robles	38.0	122.0	568			
852	Calaqua No.1	X	Y	35.5838	120.5458	SLO	Paso Robles	47.0	316.0				
853	Cameta Warm Spring	SP	Y	35.4000	120.2500	SLO	Cameta Warm Spring	23.0		11			
854	Pecho Warm Springs	SP	N	35.2692	120.8570	SLO	Morro Bay	35.0		65			
855	Sycamore Hot Sps. Well	OIL	Y	35.1867	120.7133	SLO	San Luis Obispo	24.0	286.0		P	B	07/06/81
856	Avila Hot Springs Well	WW	Y	35.1808	120.7017	SLO	San Luis Obisbo	55.0	609.0	189	F	B,C	07/06/81
857	Newsom Springs	SP	Y	35.1225	120.5430	SLO	Arroyo Grande	36.0		57	F	B	07/05/81
858	Well 10N/27W-5L1 S	WW	Y	34.9770	119.7930	SBA	Cuyama	34.0					
859	Well 7N/35W-17Q1 S	WW	Y	34.6845	120.5848	SBA	Vandenberg A.F.B.	42.0					
860	Well 5N/33W-31A1 S	WW	Y	34.4778	120.3680	SBA	Pt. Conception	47.0					
861	Las Cruces Hot Springs	SP	Y	34.5023	120.2178	SBA	Las Cruces	36.0		58	F	I	02/06/82
862	Well 5N/32W-35F1 S	WW	Y	34.4763	120.2015	SBA	Gaviota	31.0					
863	Well 5N/30W-32P1 S	WW	Y	34.4647	120.0463	SBA	El Capitan	39.0	617.0				
864	Unamed Sp.,Tecolote Tun.	SP	Y	34.5163	119.9042	SBA	Lake Cachuma	43.0					
865	San Marcos Hot Springs	SP	Y	34.5372	119.8812	SBA	Lake Cachuma	43.0		303			
866	Unamed Sp.,Tecolote Tun.	SP	Y	34.5103	119.9008	SBA	Lake Cachuma	34.0					
867	Montecito Hot Springs	SP	Y	34.4625	119.6380	SBA	Montecito	48.0		300	F	A	10/31/81
868	Little Caliente Spring	SP	Y	34.5405	119.6195	SBA	Montecito	32.0		57			
869	Agua Caliente Spring	SP	Y	34.5397	119.5620	SBA	Montecito	56.0		760			
870	Boron Spring	SP	Y	34.4228	119.5380	SBA	Montecito	22.0		95			
871	Gaviota Steam Vents	SP	Y	34.4677	120.2783	SBA	Gaviota Beach	68.0				I	02/05/82
872	White Sulphur Spring	SP	Y	37.3973	121.7970	SCL	Milpitas	29.0		19			
873	Gilroy Hot.Spring	SP	Y	37.1092	121.4778	SCL	Gilroy	41.0		15			
874	Sargent Estate Warm Sp.	SP	Y	36.9405	121.5640	SCL	Gilroy	25.0		3			
875	Maplethorpe Well	WW	Y	36.9833	121.9417	SCR	Soquel	23.0					

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
876	Hunt Hot Springs	SP	Y	41.0338	121.9300	SHA	Big Bend	56.0		27	F	B	04/27/82
877	Unnamed Well	WW	Y	41.0162	121.9067	SHA	Big Bend	29.0	149.0				
878	Big Bend Hot Springs	SP	Y	41.0225	121.9195	SHA	Big Bend	82.0		340	F	B	
879	Indian Sps. Sch. Well	NLT	Y	41.0165	121.9075	SHA	Big Bend	28.0	138.0	333	P	C	04/27/82
880	Indian Sps. Sch.,"ISS" 1	NLT	N	41.0205	121.9065	SHA	Big Bend	50.0	250.0	114	F		10/83
881	Well 31N/4W-7A1 M	WW	Y	40.5625	122.3542	SHA	Redding	31.0					
882	Unnamed Springs	SP	Y	40.4567	121.5417	SHA	Lassen	66.0		11			
883	Tophet Hot Springs	SP	Y	40.4503	121.5338	SHA	Lassen	93.0		19			
884	Bumpass Hell	SP	Y	40.4575	121.5000	SHA	Lassen	93.0		400			
885	Well 21N/15E-5D1 M	WW	Y	39.7058	120.3308	SIE	Sierra Valley	44.0	185.0				
886	Well 21N/15E-5E1 M	WW	Y	39.7025	120.3317	SIE	Sierra Valley	34.0	122.0				
887	Well 21N/15E-5E2 M	WW	Y	39.7017	120.3317	SIE	Sierra Valley	51.0	122.0	8			
888	Well 21N/15E-5P1 M	WW	Y	39.6942	120.3275	SIE	Sierra Valley	29.0	122.0				
889	Well 21N/15E-6Q1 M	WW	Y	39.6950	120.3383	SIE	Sierra Valley	27.0	229.0				
890	Well 21N/15E-6Q3 M	WW	Y	39.6950	120.3400	SIE	Sierra Valley	27.0	77.0				
891	Well 21N/15E-4L1 M	WW	Y	39.6988	120.3062	SIE	Loyalton	30.0					
892	Campbell Hot Springs	SP	Y	39.5782	120.3537	SIE	Sierraville	42.0		284	F	B	05/03/82
893	Sierra Co.,"SCGP" 1	CLT	Y	39.6822	120.3188	SIE	Sierra Valley	38.3	398.2	1249	F		
894	Sulphur Springs	SP	Y	41.6595	123.3182	SIS	W. Siskiyo Co.	29.0		8			
895	Bogus Soda Springs	SP	Y	41.9187	122.3707	SIS	N. Siskiyo Co.	21.0		113	F	I	04/28/82
896	Klamath Hot Springs	SP	Y	41.9712	122.2017	SIS	N. Siskiyo Co.	69.0		95			
897	Well 48N/1W-28F1 M	WW	Y	41.9767	121.9878	SIS	N. Siskiyo Co.	28.0	193.0				
898	Unnamed Well	WW	Y	41.9370	121.8505	SIS	N. Siskiyo Co.	30.0					
899	Unnamed Fumarole	SP	Y	41.6058	121.5237	SIS	Medicine Lake	88.0					
900	Unnamed Spring	SP	Y	41.4088	122.1948	SIS	Mt. Shasta	84.0		4			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
901	Tolenas Springs	SP	Y	38.3102	122.0532	SOL	Fairfield	20.0		1			
902	Vallejo White Sulphur Sp.	SP	Y	38.1248	122.1882	SOL	Benicia	20.0		263			
903	Unnamed Spring	SP	Y	38.1012	122.1688	SOL	Benicia	23.0		64			
904	Hoods Hot Springs	SP	Y	38.7958	123.1625	SON	Cloverdale	38.0		19			
905	The Geysers (Devils Kit.)	SP	Y	38.8017	122.8067	SON	The Geysers	100.0					
906	Unnamed Spring	SP	Y	38.7767	122.7625	SON	The Geysers	49.0		19			
907	Little Geysers	SP	Y	38.7742	122.7478	SON	The Geysers	71.0		30			
908	Skaggs Springs	SP	Y	38.6938	123.0257	SON	Skaggs Springs	55.0		15			
909	Mark West Springs	SP	Y	38.5488	122.72	SON	Mark West Spring	31.0		1			
910	Unnamed Spring	SP	Y	38.3885	122.567	SON	Sonoma Valley	23.0		76			
911	Morton's Warm Sps. Well	SW	Y	38.3943	122.5498	SON	Sonoma Valley	31.0	54.9		F		02/24/82
912	Unnamed Spring	SP	Y	38.3567	122.5087	SON	Sonoma Valley	21.0		38			
913	Agua Caliente Sps. Well	WW	Y	38.322	122.4877	SON	Agua Caliente	35.0	91.4	1022		B	07/21/81
914	Fetters Hot Springs Well	WW	Y	38.322	122.4877	SON	Agua Caliente	29.0	291.0	291	P	B	07/21/81
915	Agua C. School,"SV Geo" 1	CLT	N	38.322	122.4872	SON	Agua Caliente	W	183.0				
916	Boyes Hot Sps. Well	SW	N	38.3145	122.4864	SON	Boyes Hot Springs	43.0	107.0		I		08/58
917	Boyes Hot Sps. "No.1"	SW	N	38.3143	122.4863	SON	Boyes Hot Springs	28.0			I		
918	Boyes Hot Sps. "No.2"	SW	N	38.3147	122.4866	SON	Boyes Hot Springs	50.6	140.8		I		08/19/80
919	Sonoma Mission Inn,"SV" 1	CLT	Y	38.3138	122.4823	SON	Boyes Hot Springs	53.1	396.3	757	P	B,C	10/09/91
920	Well 8N/8W-34M M	WW	Y	38.4933	122.7382	SON	Santa Rosa	22.9	153.3				08/28/73
921	Well 7N/8W-2E M	WW	N	38.4845	122.7197	SON	Santa Rosa	21.8	112.5				11/24/81
922	Well 8N/8W-35L M	WW	N	38.495	122.7127	SON	Santa Rosa	22.8	142.6				05/20/82
923	Well 8N/8W-35P M	WW	N	38.4899	122.7133	SON	Santa Rosa	20.1	155.4				07/14/82
924	Well 7N/8W-12D M	WW	N	38.4709	122.7022	SON	Santa Rosa	21.0	9.1		F		
925	Well 7N/8W-12E M	WW	Y	38.4687	122.7024	SON	Santa Rosa	24.0	70.1		F		02/28/83

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
926	Well 7N/8W-12N M	WW	Y	38.4612	122.7036	SON	Santa Rosa	29.4	153.6		F		12/30/82
927	Well 7N/8W-12N M	WW	N	38.4604	122.7014	SON	Santa Rosa	22.8	36.6		F		
928	Unnamed Spring	SP	Y	38.4602	122.7017	SON	Santa Rosa	22.4			F		
929	Well 7N/8W-24A4 M	WW	Y	38.4428	122.6862	SON	Santa Rosa	30.0	305.0		F		12/30/82
930	Well 7N/8W-24H M	WW	N	38.4416	122.686	SON	Santa Rosa	29.0	366.0		F		
931	Unnamed Spring	SP	Y	38.452	122.6483	SON	Santa Rosa	22.0			F		01/06/83
932	Well 7N/7W-16G M	WW	Y	38.4549	122.6352	SON	Santa Rosa	31.7	39.0		F		12/30/82
933	Well 7N/7W-32G9 M	WW	Y	38.4099	122.6524	SON	Bennett Valley	30.6	125.0				08/29/76
934	Well 7N/7W-32L M	WW	N	38.4091	122.6564	SON	Bennett Valley	20.0	86.0				
935	Well 6N/7W-5A M	WW	Y	38.401	122.6491	SON	Bennett Valley	30.0					02/10/83
936	Well 6N/7W-9A M	WW	N	38.3851	122.6308	SON	Bennett Valley	22.0	177.4				02/10/83
937	Well 6N/8W-1Q M	WW	N	38.3908	122.6914	SON	Rohnert Park	W	84.0				
938	Well 7N/7W-25G M	WW	N	38.4239	122.5798	SON	Sonoma Valley	23.8	166.0				04/27/76
939	Well 7N/6W-33D M	WW	N	38.4143	122.5366	SON	Sonoma Valley	W					
940	Well 7N/6W-32A M	WW	N	38.4121	122.5387	SON	Sonoma Valley	W					
941	Unnamed Well	WW	N	38.3997	122.5667	SON	Sonoma Valley	20.0					04/03/82
942	McEwan Ranch Spring	SP	Y	38.3883	122.5685	SON	Sonoma Valley	23.0			F		02/24/82
943	Nunn's Iron Spring	SP	N	38.4084	122.4859	SON	Sonoma Valley	20.0					
944	Sonoma State Hosp. Well	WW	N	38.3563	122.5086	SON	Sonoma Valley	20.0	7.0				
945	Unnamed Well	WW	N	38.3467	122.501	SON	Sonoma Valley	21.0	76.0				03/21/82
946	Sonoma State Hosp. No. 3	WW	Y	38.3445	122.5193	SON	Sonoma Valley	37.5	436.0				
947	Unnamed Well	WW	N	38.3333	122.497	SON	Sonoma Valley	22.0	76.0				03/20/82
948	Unnamed Well	WW	N	38.3297	122.49	SON	Sonoma Valley	22.0	79.0				04/04/82
949	Well 6N/6W-35G M	WW	N	38.3236	122.49	SON	Sonoma Valley	26.0	57.3				
950	Well 6N/6W-35E M	WW	N	38.3227	122.4959	SON	Sonoma Valley	28.1	207.3				02/10/77

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
951	Unnamed Well	WW	N	38.3042	122.4968	SON	Sonoma Valley	21.0	52.0				03/17/82
952	Well 5N/6W-12D M	WW	N	38.2978	122.4775	SON	Sonoma	31.0	213.0				10/10/80
953	Unnamed Well	WW	Y	38.298	122.4733	SON	Sonoma	30.0	226.0	492			03/15/82
954	Unnamed Well	WW	N	38.2947	122.4585	SON	Sonoma	21.0	70.0		F		03/18/82
955	Unnamed Well	WW	N	38.2958	122.457	SON	Sonoma	21.0	73.2	191			03/11/82
956	Unnamed Well	WW	N	38.2992	122.4568	SON	Sonoma	24.0	61.0	492			03/15/82
957	Unnamed Well	WW	N	38.2983	122.4502	SON	Sonoma	28.0	67.1	530			03/11/82
958	Well 5N/5W-7G M	WW	N	38.2964	122.4498	SON	Sonoma	28.0	137.0				01/06/83
959	Well 5N/5W-7G M	WW	N	38.2946	122.4496	SON	Sonoma	25.0	46.0				
960	Unnamed Well	WW	N	38.296	122.4547	SON	Sonoma	23.0	152.0	1800			03/10/82
961	Unnamed Well	WW	N	38.2942	122.4567	SON	Sonoma	29.0	107.0		F		03/08/82
962	Unnamed Spring	SP	Y	38.3248	122.4049	SON	Sonoma Valley	28.4					
963	Unnamed Well	WW	N	38.2823	122.4635	SON	Sonoma	20.0	53.0				04/10/82
964	Well 5N/5W-17L M	WW	N	38.2817	122.4356	SON	Sonoma Valley	29.3	305.0				
965	Unnamed Well	WW	N	38.267	122.4992	SON	Sonoma Valley	20.0	156.0				04/11/82
966	Well 5N/5W-31A1 M	WW	N	38.2426	122.4454	SON	Sonoma Valley	20.0	124.0		F		04/52
967	Well 5N/5W-28R1 M	WW	N	38.246	122.4092	SON	Sonoma Valley	20.0	85.0				07/29/71
968	Unnamed Well	WW	N	38.2537	122.3883	SON	Sonoma Valley	28.0	213.0		F		02/22/82
969	Well 4N/5W-7C M	WW	N	38.2126	122.4547	SON	Sonoma Valley	28.0	61.0		F		
970	Unnamed Well	WW	N	38.2163	122.3728	SON	Sonoma Valley	20.0	74.0				02/25/82
971	Well 5N/6W-25P2 M	WW	Y	38.2461	122.4728	SON	Sonoma Valley	38.0	195.0				07/21/81
972	Salt Grass Springs	SP	Y	37.4312	121.3083	STA	W. Stanislaus Co.	23.0		4			
973	Growler Hot Spring	SP	Y	40.3942	121.5078	TEH	Lassen	95.0		38			
974	Morgan Hot Springs	SP	Y	40.3837	121.5133	TEH	Lassen	96.0		323			
975	Tuscan Springs	SP	Y	40.2408	122.11	TEH	Red Bluff	29.0		3			

TABLE 1. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - DESCRIPTIVE DATA

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	TEMP (°C)	DEPTH (m)	FLOW (L/min)	STATUS	USE	DATE
976	Stinking Springs	SP	Y	40.2228	122.7495	TEH	N.W. Tehama Co.	38.0		57			
977	Kern Hot Spring	SP	Y	36.478	118.4047	TUL	E. Tulare Co.	43.0		15			
978	Jordan Hot Spring	SP	Y	36.2292	118.3017	TUL	E. Tulare Co.	43.0		285			
979	Soda Springs	SP	Y	36.2105	118.1758	TUL	E. Tulare Co.	38.0		8			
980	Soda Spring	SP	Y	36.1298	118.8158	TUL	Springville	22.0		6			
981	Ward Spring	SP	Y	36.1167	118.7758	TUL	Springville	21.0		4			
982	California Hot Springs	SP	Y	35.8795	118.677	TUL	California Hot Sps.	45.0		500	F	A,B	03/17/81
983	Well 8N/23W-20H1 S	WW	Y	34.7708	119.3333	VEN	N.W. Ventura Co.	32.0					
984	Willet Hot Springs	SP	Y	34.582	119.0472	VEN	Sespe Hot Springs	42.0		568			
985	Sespe Hot Springs	SP	Y	34.5947	118.9978	VEN	Sespe Hot Springs	90.0		380			
986	Vickers Hot Springs	SP	Y	34.5017	119.3458	VEN	Ojai	51.0		27			
987	Wheelers Hot Springs	SP	Y	34.5092	119.2908	VEN	Ojai	39.0		95			
988	Stingleys Hot Springs	SP	Y	34.4995	119.3405	VEN	Ojai	51.0		190			
989	Matilija Hot Springs	SW	Y	34.4842	119.3072	VEN	Ojai	43.5	5.0	250	P	B	10/29/80

TABLE 2

CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
651																	
652																	
653																	
654																	
655																	
656																	
657	6.13												1280.0				1280
658	7.70		888.0	33.0	107.0	16.0			4.4	79.0	268.0	225.0	1360.0	5.00		2920	2850
659																	
660																	
661	8.30		875.0	3.6	26.0	54.0		0.09	6.0	37.0	730.0	426.0	790.0	0.60		2610	2610
662	7.30		5250.0	61.0	221.0	289.0		1.50	24.0	74.0	1470.0	2060.0	7380.0	1.30		15900	16081
663	9.20		36600.0	1050.0					360.0		37000.0	4210.0	23400.0	90.00		94100	91800
664	8.10		970.0	30.0	33.0	34.0				44.0	420.0	1040.0	680.0	2.20			3040
665	7.70		87.0	6.0	73.0	52.0			0.6		190.0	383.0	25.0				720
666																	
667	7.80		151.0	3.6	8.4	1.0			0.5	54.0	99.0	164.0	47.0	20.00		500	512
668			708.0	16.0	16.0	5.0			2.2	53.0	264.0	321.0	736.0				1990
669					25.0	4.9				54.0	163.0	40.0	30.0			320	290
670	8.80		115.0	3.2	3.0	0.5			0.4	27.0	73.0	80.0	66.0	3.40		350	345
671	7.60		112.0	3.2	5.0	3.0			0.3		102.0	72.0	66.0	8.00		330	320
672	6.80	4780	465.0	13.0	430.0	130.0	0.35	0.13	1.2	23.0	143.0	657.0	1076.0	0.40			2876
673	7.45		335.0		123.0	27.0				29.0	173.0	425.0	398.0	1.10		1420	1420
674	7.50	1400	233.0	4.0	31.0	3.0	0.16	0.11	0.9	17.0	108.0	157.0	238.0	2.50			743
675	7.50		297.0		73.0	7.3			0.7	26.0	90.0	248.0	356.0			1070	1070

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
1	7.90		164.0	8.4	27.0	29.0			1.6	37.0	309.0	74.0	150.0	0.20		660	659
2	8.60		116.0	0.3	11.0	0.4			0.6	34.0	304.0	9.0	16.0	0.70		340	339
3	6.70	2000	409.0	12.0	29.0	2.0	0.13	0.66	2.8	89.0	716.0	149.0	182.0	3.80			1236
4																	
5			1687.0		843.0											3000	2530
6	7.20		5050.0	69.0	119.0	209.0		5.80	162.0	100.0	4790.0	8.0	6040.0	2.20		14200	14200
7	7.40		9110.0	506.0	5.9	29.0			240.0	244.0	7240.0	7.0	11000.0	3.00		25900	24699
8	7.68		8580.0	460.0	5.6	54.8		12.10	285.0	199.0	7375.0	157.0	10710.0	3.32	1.20		
9																	
10											11936.0		8460.0				14340
11	7.88		9740.0	513.0	5.6	41.0		14.00	300.0	89.0	8250.0	170.0	11210.0		1.20		
12																	
13																	
14	8.20		308.0	16.0	33.0	17.0		0.09	7.3	100.0	662.0	2.0	221.0	1.10		1050	1050
15	9.10		1500.0	7.6	286.0				10.0	23.0	130.0	16.0	2750.0	0.20		4700	4830
16	9.50		2410.0	12.0	679.0				7.4	17.0	85.0	7.0	4870.0			8210	8210
17	7.70		3100.0	53.0	431.0	12.0		4.60	191.0	16.0	203.0	2.0	5770.0	2.50		10300	10300
18	6.00	34900	3606.0	47.0	415.0	135.0	0.18	0.10	25.7	13.0	511.0		10400.0	0.60			14918
19																	
20	9.40		33.0	0.9	2.4	0.9		0.02	0.3	22.0	55.0	13.0	14.0	0.50		115	114
21																	
22																	
23	6.92		300.0	8.8	70.0	3.2		0.89	2.9	60.0	307.0	74.0	370.0	3.00		1200	1347
24	8.00		200.0	5.0	75.0	0.2		0.65	2.0	51.0	28.0	48.0	400.0	2.10		810	824
25	8.80	3880	675.0	5.0	36.0			0.07	14.0	58.0	23.0	109.0	1275.0	0.50			2209

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
26	4.50		4290.0	35.0	442.0	2470.0			3.0	91.0	10.0	18500.0	399.0	9.80		26800	26800
27	8.90		129.0	0.3	1.6	0.6				63.0	201.0	40.0	62.0	4.00		430	414
28	6.50		8400.0	90.0	115.0	262.0				140.0	3068.0	63.0	11800.0	1.40		22500	22573
29	7.10		3320.0	21.0	607.0	48.0			10.0		29.0	463.0	5950.0	2.60		11100	11080
30	8.60		585.0	8.4	88.0	14.0			1.4	33.0	96.0	211.0	910.0	3.60		1900	1900
31	7.80		1817.0	12.0	260.0	66.0			3.3		76.0	1387.0	2360.0	3.60		6200	6200
32	7.80		1460.0	14.0	11.0	6.1				34.0	1180.0	1.0	1600.0	1.60		3750	3750
33	7.50		846.0		8.0	1.0					454.0	132.0	960.0			2210	2210
34			2070.0	9.7	119.0	47.0					566.0	236.0	3039.0			7480	5798
35	8.10		860.0	6.0				0.36	6.6		459.0	119.0	960.0	3.40	0.30	2260	2256
36	8.40		550.0	2.1	37.0								580.0				1169
37	7.30		381.0		162.0	31.0				19.0	84.0	388.0	628.0				1650
38	8.50		140.0	0.8	16.0								124.0				281
39	7.50		445.0		133.0	36.0			1.6	16.0	82.0	827.0	365.0	1.40			1870
40	8.60		832.0	8.4	38.0												878
41	7.70		4300.0	15.0	410.0	150.0			3.7	11.0	109.0	8100.0	2200.0	0.60			15243
42	8.30		3780.0	15.0	630.0								4920.0				9345
43	9.50		110.0	1.0	1.7	0.8			0.7	59.0	130.0	14.0	79.0	4.00			334
44	7.60		240.0	6.1	69.0	13.0			0.8	40.0	130.0	130.0	340.0	1.30			923
45	9.50		120.0	1.0	1.0				0.7	50.0	111.0	25.0	99.0	3.20		390	394
46	8.90		110.0	0.6	2.0	0.5			0.7	25.0	149.0	13.0	69.0	5.20			300
47	7.90		89.0	5.0	49.0	8.0					115.0	113.0	85.0	0.60			455
48	7.70		978.0	53.0	138.0	33.0			0.9	25.0	397.0	208.0	1530.0	2.00		3540	4060
49	8.20		880.0	50.0	74.0	35.0		4.00	4.7	78.0	140.0	201.0	1400.0	4.00		3500	2810
50	7.80		980.0	46.0	132.0	33.0					305.0	207.0	1540.0	3.20			3270

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
51																	
52	6.50		1380.0	77.0	245.0	57.0			6.6	66.0	773.0	171.0	2240.0	3.50		4670	4670
53																	
54	7.10		1224.0	56.0	191.0	39.0			5.0		525.0	198.0	1918.0	3.90		4080	4077
55																	
56																	
57																	
58																	
59																	
60																	
61																	
62																	
63																	
64																	
65																	
66																	
67																	
68																	
69	6.80		600.0	17.0	44.0	21.0			4.2	29.0	608.0	250.0	540.0			1790	1810
70																	
71																	
72	6.40		7200.0	504.0	854.0	232.0			50.0		1684.0	377.0	12423.0	1.80		23000	23271
73																	
74																	
75	7.40		384.0		134.0	49.0				3.0	100.0	275.0	710.0			1600	1600

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
76	7.50		10600.0	1250.0	1130.0	74.0		40.00	100.0	120.0	574.0	621.0	19700.0	1.00	0.20		34700
77																	
78	7.40		5540.0	307.0	360.0	22.0		12.00	69.0	71.0	1260.0	218.0	9010.0	2.80		16300	16300
79			70000.0	24000.0	34470.0	18.0			149.0	5.0		34.0	201757.0				334987
80	5.20		50400.0	17500.0	28000.0	54.0		215.00	390.0	400.0	150.0	5.0	155000.0	15.00		340000	257800
81	4.64		53000.0	16500.0	27800.0	10.0			390.0	400.0	1015.0		155000.0			260000	259000
82	4.90		62800.0	20800.0	31500.0	16.0			350.0		40.0	49.0	185000.0				318000
83																	
84																	
85	6.10		47300.0	7960.0	23600.0	110.0		76.00		435.0	62.0	10.0	123389.0	12.00	0.20		203406
86	6.40		30000.0	3200.0	7800.0	120.0		67.00		150.0			52000.0				98600
87	5.60		60100.0	15000.0	29800.0	35.0		243.00	280.0		114.0	1.0	167000.0			390000	285000
88	5.30		36340.0	7820.0	14550.0	780.0		49.00	210.0	350.0	60.0	58.0	93650.0	2.40	10.00	280000	153836
89																	
90	7.93		682.0	5.2	93.0								405.0				1185
91			708.0		54.0	48.0			0.5		628.0	267.0	763.0				2148
92	7.60		502.0		20.0	11.0				24.0	278.0	275.0	477.0	1.40			1450
93	8.00		530.0	3.7	19.0	9.7		0.24	2.7	36.0	293.0	300.0	510.0	1.50			1710
94	7.80		620.0	5.4	11.0	11.0		0.32	2.6	36.0	1308.0	100.0	230.0	1.40		2330	2330
95	8.10		500.0	3.0	9.7	4.2		0.17	2.4	38.0	486.0	120.0	450.0	2.00		1600	1620
96	7.90		489.0		17.0	2.6				23.0	368.0	115.0	490.0	1.50			1320
97	8.00		1100.0	9.4	43.0	14.0		0.63	9.7	33.0	380.0	620.0	1200.0	1.30		3160	3220
98	7.80		448.0		14.0	9.0				14.0	268.0	160.0	467.0	1.50			1250
99	7.80		1200.0	7.7	37.0	11.0		0.68	8.9	27.0	292.0	60.0	1700.0	1.30		3350	3350
100	8.20		560.0	3.8	21.0	10.0		0.32	2.5	22.0	253.0	250.0	610.0	1.20		1730	1730

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
101	8.20		530.0	2.6	32.0								562.0				1127
102	8.10		580.0	4.1	23.0	9.3		0.41	4.7	31.0	273.0	240.0	660.0	1.00			1830
103	8.10		572.0		19.0	9.8				3.0	210.0	205.0	672.0				1610
104			493.0	5.0	14.0	7.0			1.9		240.0	152.0	553.0	1.20		1320	1343
105	8.20		504.0		14.0	8.3				23.0	314.0	210.0	488.0				1400
106	7.80		950.0	6.4	22.0								910.0				1888
107	8.30		490.0	3.1	9.9	3.3		0.18	2.4	30.0	550.0	120.0	400.0	1.90		1610	1610
108	8.20		447.0		11.0	4.0				15.0	316.0	125.0	442.0	1.70			1200
109	8.40		500.0	2.9	8.7	3.3		0.17	1.8	29.0	480.0	130.0	450.0	1.40		1610	1610
110	7.70		980.0	8.7	29.0	10.0		0.56	3.7	33.0	453.0	540.0	960.0	1.30		3020	3020
111	7.80		900.0	4.5	19.0	12.0		0.13	5.7	30.0	685.0	160.0	820.0	1.20		2640	2640
112	7.80		1200.0	6.9	40.0	15.0		0.23	2.0	35.0	897.0	310.0	1300.0	1.00		3810	3810
113	7.70		1100.0	8.9	29.0	14.0		0.50	2.2	32.0	554.0	270.0	1400.0	1.00		3410	3410
114	7.70		1760.0		135.0	77.0				13.0	334.0	2200.0	1360.0				5710
115	8.20		570.0	3.4	8.8	4.0		0.14	4.9	44.0	843.0	100.0	380.0	1.90		1960	1960
116	8.60		562.0		13.0					29.0	816.0	121.0	328.0	1.70			1055
117	8.20		555.0		11.0	4.0				27.0	748.0	145.0	342.0	1.80			1460
118	8.20		518.0	2.6	10.0												531
119	8.00		593.0								211.0	336.0	608.0				1680
120	7.60		1050.0		60.0	53.0				21.0	510.0	575.0	1160.0				3170
121	7.80		1000.0	5.9	52.0	45.0		0.17	3.7	36.0	563.0		1200.0	1.20		3400	3400
122	8.20		520.0	3.1	10.0	4.2		0.12	5.5	31.0	822.0	81.0	340.0	2.00		1820	1820
123	8.10		610.0	3.7	22.0	4.2		0.15	13.0	36.0	811.0	130.0	490.0	1.60		2120	2120
124	7.70		940.0	8.0	33.0	10.0		0.42	6.8	33.0	382.0	550.0	1000.0	1.20		2970	2970
125	8.40		390.0	2.1	4.8	2.0		0.11	7.6	23.0	654.0	130.0	170.0	3.30		1390	1390

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
126	8.40		390.0	2.0	6.2	2.1		0.12	1.1	23.0	622.0	120.0	200.0	2.90		1370	1370
127	8.20		420.0	3.0	12.0	5.2		0.25	9.0	30.0	203.0	130.0	500.0	1.30		1310	1310
128	8.10		385.0		8.0			3.00		29.0	432.0	105.0	284.0	1.80			1030
129	8.20		310.0	2.2	13.0	5.3		0.08	0.8	18.0	313.0	57.0	300.0	1.60		1020	1020
130	7.90		411.0		7.4	4.3				23.0	528.0	98.0	275.0	2.00			1080
131	8.30		380.0	2.0	7.6	3.0		0.08	2.8	28.0	448.0	100.0	300.0	2.60			1270
132	7.90		900.0	5.7	31.0	8.2		0.36	2.7	28.0	272.0	130.0	1200.0	1.70		2580	2580
133	1.30		375.0	1.7	6.3								254.0				637
134	810		765.0		27.0	6.9				23.0	332.0	135.0	955.0				1310
135	8.20		500.0	3.0	8.7	3.9		0.11	2.6	37.0	750.0	87.0	350.0	2.30		1740	1740
136	7.90		530.0	4.2	26.0	15.0		0.09	3.7	24.0	704.0	280.0	330.0	1.70		1920	1920
137	8.20		780.0		31.0	21.0				27.0	684.0	250.0	735.0				1399
138	8.00		590.0	4.2	29.0	13.0		0.11	2.8	33.0	746.0	190.0	530.0	1.30		2140	2140
139	8.00		620.0	4.6	30.0	17.0		0.11	2.7	24.0	655.0	370.0	420.0	1.30		2150	2150
140	8.20		480.0		9.1	3.5			3.2	30.0	676.0	65.0	315.0	2.60		1240	1240
141	8.40		421.0		8.0	3.0				39.0	644.0	114.0	213.0				1120
142	8.30		460.0	2.5	9.1	3.5		0.11	4.4	38.0	721.0	110.0	260.0	2.80		1610	1610
143	8.20		407.0								618.0	96.0	218.0				1024
144	7.60		405.0	3.0	7.6	3.0			3.3		609.0	96.0	206.0	3.10		1030	1020
145	8.10		490.0	2.9	11.0	4.0		0.11	2.5	33.0	800.0	84.0	320.0	2.00		1750	1750
146	8.30		367.0		9.0	3.0				26.0	618.0	134.0	127.0	2.80			978
147	7.60		1790.0		54.0	67.0				29.0	824.0	233.0	2400.0			4990	4990
148	7.80		670.0	4.9	22.0	17.0		0.12	1.9	37.0	673.0	190.0	600.0	1.80		1795	2220
149	8.00		865.0		45.0	35.0			2.2	41.0	508.0	356.0	960.0	1.10		2955	2600
150																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
151	7.20		2300.0		560.0	361.0				8.0	268.0	1200.0	4550.0			9500	9110
152																	
153	7.70		3312.0	59.0	417.0	119.0			2.2	22.0	281.0	452.0	6000.0	3.00		10250	10520
154																	
155	6.40		3200.0	220.0	860.0	4.7		3.20		75.0			6500.0				12800
156	6.30		3600.0	240.0	860.0	37.0		3.80		85.0			6300.0				11800
157	7.10		3600.0	360.0	880.0	2.4		6.60	4.8	120.0	20.0	100.0	9000.0	1.60			14080
158	8.00		500.0	3.2	11.0	4.7		0.12	3.6	26.0	797.0	110.0	300.0	2.00		1290	1760
159	8.00		500.0	4.0	13.0	3.0			2.0		666.0	99.0	304.0	1.90		1315	1313
160	8.00		484.0		13.0	1.8				29.0	692.0	120.0	282.0	1.20			1280
161	7.90		794.0		18.0	6.6				32.0	470.0	180.0	870.0				2140
162																2090	
163	7.80		350.0	2.5	15.0	7.9		0.04	3.2	23.0	492.0	79.0	290.0	1.70		960	1270
164	8.00		790.0	4.6	20.0	6.1		0.21	3.6	29.0	374.0	150.0	950.0	1.40		2085	2330
165	8.00		828.0	3.9	32.0								861.0				1725
166	8.20		450.0	2.5	9.0	3.3		0.09	6.7	41.0	700.0	130.0	260.0	2.30		1600	1600
167	8.30		385.0		1.1	1.0				21.0	634.0	170.0	115.0	2.80			1020
168	8.40		420.0	2.2	7.6	2.7		0.12	2.7	25.0	612.0	160.0	220.0	3.90		1460	1460
169	8.20		570.0	3.7	17.0	5.5		0.16	2.9	22.0	435.0	170.0	600.0	2.20			1830
170	8.40		370.0	2.1	6.7	2.0		0.13	3.5	23.0	592.0	140.0	160.0	3.40			1300
171	8.30		300.0		8.2	1.6				14.0	450.0	76.0	159.0	3.00			787
172																	
173	8.20		610.0	3.5	11.0	5.2		0.12	3.2	22.0	863.0	74.0	490.0	1.60		2080	2080
174	7.70		760.0	69.0	13.0			4.00		250.0	715.0	202.0	710.0	3.20			2377
175	5.45		8100.0	1050.0	1360.0	17.0			9.8	320.0	202.0	43.0	15850.0	1.00	0.30		26889

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
176	8.40		405.0	3.9	24.0												435
177	6.70		798.0	49.0	47.0	4.0				130.0	705.0	196.0	825.0				2394
178	7.50		1195.0	27.0	44.0	3.2			4.0	58.0	329.0	60.0	1710.0	1.10		3280	3260
179	7.80		840.0	5.2	24.0								995.0				1864
180	8.30		315.0	1.6	7.0								154.0				478
181	8.10		560.0	3.6	17.0	3.5		0.25	3.4	26.0	314.0	120.0	630.0	2.10		1680	1680
182	8.30		420.0	2.4	10.0	2.7		0.10	2.2	25.0	519.0	130.0	310.0	2.30		1420	1420
183	8.00		615.0	3.1	9.5								582.0				1210
184	8.00		576.0		17.0	4.3				21.0	316.0	115.0	662.0				1550
185	8.10		450.0	2.9	17.0	4.2		0.11	1.5	29.0	374.0	180.0	400.0	1.70		1460	1460
186																	
187	6.80		1135.0	86.0	79.0												1300
188																	
189																	
190																	
191	8.80	1090	145.0	2.5	13.0		0.06	0.34	0.7	30.0	28.0	60.0	181.0	8.10		510	453
192																	
193	6.00	1100	145.0	15.0	53.0	20.0		0.18	1.1	34.0	450.0	80.0	59.0	3.00			634
194	6.78		210.0	20.0	63.0	19.0			1.6	45.0	433.0	260.0	66.0	5.40			897
195	7.17		210.0	20.0	61.0	18.0			1.4	44.0	421.0	250.0	65.0	5.20		1000	876
196	7.90		231.0	22.0	51.0	22.0			1.1	54.0	368.0	210.0	67.0	6.40		1050	850
197	8.30		23.0	5.1	88.0	34.0			0.4	29.0	155.0	263.0	10.0	0.30		540	539
198	7.70		440.0	46.0	22.0	65.0		1.20	1.0	74.0	1213.0	20.0	238.0	0.40			1502
199	7.60		2000.0	95.0	48.0	70.0			19.0	94.0	3000.0	52.0	1600.0			5530	7813
200	20		14.0	28.0	18.0	81.0			0.6	326.0	1.0	1450.0		0.90		2500	2260

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
201	8.50		1630.0	244.0	74.0	1.0			72.0	154.0	156.0	53.0	3040.0	2.20	7.50	2500	5345
202																	
203			328.0		48.0						745.0	54.0	163.0			920	960
204	6.00	320	30.0		43.0	7.0	0.06		0.4	38.0	114.0	29.0	44.0	0.60			250
205	8.30		4230.0	47.0	22.0	14.0			39.0	15.0	531.0	1350.0	5000.0	1.30		13000	10980
206			20300.0		16.0	0.4			40.0			8520.0	23500.0			53900	53450
207																	
208			28.0		66.0	23.0			0.3		134.0	168.0	30.0			420	381
209	7.10	3790	575.0	16.0	5.0	2.0		0.21	7.7	66.0	711.0	289.0	389.0	3.50			1705
210																	
211	8.10	4450	705.0	16.0	5.0			0.16	9.4	67.0	644.0	464.0	543.0	3.20			2156
212																	
213																	
214	7.30		244.0	21.0	42.0	28.0			4.0		374.0	247.0	144.0	1.60		1000	965
215	8.00		145.0	11.0	26.0	22.0		0.13		43.0	321.0	158.0	39.0	3.00		700	601
216	6.70	1025	120.0	11.0	42.0	21.0		0.13	0.9	22.0	340.0	224.0	38.0	3.50		800	652
217	7.40		932.0	42.0	89.0	43.0		0.78	8.6	60.0	1210.0	719.0	514.0	7.00		3630	3001
218	6.60	310	63.0	4.0	2.0			0.06		42.0	39.0	80.0	11.0	4.20			240
219	6.80	335	60.0	4.0	5.0		0.09	0.05		40.0		76.0	10.0	4.40			
220	7.60	540	111.0	5.0	7.0	1.0		0.15	2.1	48.0			41.0	8.00			
221	8.30	308	56.0	4.0	4.0	1.0		0.08	1.7	36.0	62.0		44.0	5.00			204
222	8.90	375	74.0	4.0	14.0				3.5	45.0	86.0	21.0	90.0	3.20			300
223																	
224	8.05	343	71.0	4.0	2.0	1.0			3.8	56.0	63.0	10.0	64.0	2.20			278
225																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
226	7.20		84.0	4.2	65.0	9.2					84.0	99.0	152.0	0.60		430	455
227	9.10		82.0	0.8	2.8	1.0					179.0	21.0	14.0	0.80		210	210
228	8.60		407.0	7.1	3.4	0.6			3.0		815.0	23.0	152.0	4.00		1000	1000
229	7.40		414.0	11.0	176.0	33.0			2.4	63.0	152.0	73.0	895.0	0.20		1760	1740
230																	
231	9.10		53.0		1.5	2.3					96.0		28.0	0.00		170	132
232	7.70		484.0	4.8	301.0	140.0			5.5	14.0	207.0	1740.0	264.0	0.60		3060	3060
233	7.80		66.0	3.3	58.0	17.0				21.0	156.0	197.0	21.0	0.20		360	476
234	7.70		430.0	10.0	230.0	181.0			3.8		337.0	1560.0	250.0			2830	2830
235	6.70	435	56.0	1.0	14.0	4.0		0.06	0.6	29.0	133.0	69.0	37.0	1.10			277
236	8.10	352	54.0	4.0	13.0	1.0		0.09	1.2	38.0	594.0		47.0	4.00			479
237	7.80		1650.0	34.0	50.0	188.0		4.40	277.0	154.0	3680.0	29.0	1120.0	0.40		5350	5350
238																	
239																	
240	7.25		2340.0	54.3	154.0	529.0		22.60	366.0	179.0	4319.0	34.9	3181.0	0.37	1.40		
241	10.82		11845.0	335.0	3.7	22.9			17.0	15.0		48.5	17260.0	0.14			
242	7.04		2290.0	242.0	89.7	588.0		9.35	288.0	100.0	4900.0	175.0	3384.0	0.64	0.90		
243																	
244	6.59		196.0	11.8	105.0	47.2		0.51	14.8	149.0	809.0	0.2	169.0				
245	7.05		2686.0	45.0	52.3	686.0		3.80	167.0	90.0	4845.0	12.2	3750.0	0.40	0.90		
246	8.10		1340.0	44.0	26.0	23.0		6.40	828.0	203.0	2600.0	680.0	900.0	1.40			5700
247	7.50		1100.0	33.0	7.0	22.0		4.80	60.0	72.0	2960.0	454.0	690.0	1.00		8000	4990
248																	
249																	
250	5.86		100.0	12.0	92.0	130.0				140.0	1180.0	1.0	63.0			1180	1116

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
251																	
252																	
253																	
254			484.0	36.0	93.0	111.0			5.8	110.0	1171.0	639.0	164.0			2400	2337
255			134.0	12.0	295.0	231.0			1.0	123.0	2424.0		19.0			2000	2030
256																	
257	7.25		148.0	35.5	23.4	16.0		1.09	29.8	189.0	386.0	25.2	153.0	0.15			
258	5.62		140.0	15.0	12.0	95.0				104.0	547.0	1.0	220.0				854
259																	
260	7.54		56.0	3.9	10.8	31.5		0.15	1.0	171.0	282.0	0.4	45.4				
261	6.88		162.0	20.0	30.0	238.0			19.0	170.0	1322.0	6.0	272.0	0.10		1600	1565
262	7.13		254.0	21.7	31.6	297.0		1.30	37.4	156.0	1680.0	0.1	457.0				
263	6.95		572.0	10.4	31.6	228.0		0.61	21.0	104.0	2572.0	0.3	183.0				
264																	
265	6.61		165.0	14.8	20.8	156.0		0.98	15.6	141.0	901.0	46.5	255.0	0.05			
266	6.82		391.0	15.8	27.8	310.0		1.26	91.0	151.0	2096.0	6.3	448.0				
267	6.42		39.0	9.5	157.0	52.4		0.18		85.0	203.0	619.0	2.1	0.35			
268	8.94		130.0	0.7	3.0	1.8		0.02	1.3	53.0	260.0	10.0	31.0	3.70		500	390
269					62.0					113.0	122.0	24.0	6.0				346
270	7.34		2600.0	207.0	92.6	279.0		6.25	171.0	88.0	4650.0	0.3	2985.0	0.52	0.70		
271	8.40		50.0	1.8	7.1				0.3	34.0	72.0	43.0	15.0	2.10		190	254
272																	
273	8.60	.	240.0	5.9	30.0	0.1		0.12	3.2	85.0	34.0	370.0	110.0	2.60		880	880
274	9.11	1260.	200.0	3.0	34.0		0.12	0.11	2.7	57.0	5.3	314.0		2.00			735
275																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
276	8.00		20.0	3.8	19.0	3.4		0.01		53.0	122.0	11.0	2.0	0.10		230	233
277	7.90		140.0	4.6	24.0	1.6		0.05	1.4	62.0	70.0	190.0	64.0	1.20		560	558
278																	
279	7.60		177.0	8.0	32.0	1.0			1.9	66.0	36.0	260.0	98.0			690	660
280																	
281																	
282	8.10		136.0	3.0	11.0	2.0			1.3	38.0	95.0	148.0	52.0			450	446
283																	
284																	
285																	
286																	
287																	
288																	
289																	
290																	
291																	
292																	
293	8.40		280.0	7.5	18.0	0.1		0.12	5.5	120.0	52.0	360.0	190.0	4.10		1040	1040
294																	
295	8.30		58.0	8.0	6.0	2.2		0.01	0.2	42.0	114.0	32.0	17.0	0.20		280	279
296	8.90		227.0	6.8	16.0			0.30	4.1			274.0	160.0				830
297	8.43		250.0	5.5	14.0			0.08	4.0		44.0	300.0	160.0	4.40		880	860
298																	
299																	
300																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
301	8.30	320	60.0		3.0		0.27	0.11	0.4	35.0	49.0	38.0	24.0	2.00			197
302	9.00		336.0	4.9	76.0	0.5		0.12	6.2	36.0	37.0	368.0	355.0	9.20		1210	1210
303	7.80		50.0	1.2	16.0	3.2					156.0	23.0	8.0	0.40		190	193
304	6.70		130.0	3.0	115.0	34.0					261.0	403.0	62.0				875
305	8.00		220.0	1.3	1.6	0.1		0.06	1.0	21.0	466.0	76.0	12.0	1.90		565	565
306	7.10		400.0	8.0	76.0	62.0			0.5	22.0	382.0	766.0	160.0	0.10		1690	1690
307	8.40		410.0	1.4	2.2	0.5		0.02	1.6	19.0	452.0	458.0	32.0	2.60		1160	1160
308			722.0	21.0	6.0	2.0				26.0	161.0		200.0			1800	1780
309	7.30		48.0	4.0	72.0	21.0			0.1	17.0	252.0	97.0	39.0	0.20		430	430
310	7.60		62.0	2.0	68.0	22.0					211.0	85.0	38.0	0.90			380
311	8.40		42.0	2.0	87.0	21.0					267.0	120.0	32.0				435
312	8.80		2140.0	16.0	724.0	3.8		0.28	5.9	31.0	55.0	37.0	4740.0	0.90	0.20	7740	7740
313	7.80		39.0	4.0	76.0	13.0					181.0	109.0	45.0			410	413
314	8.30		86.0	3.0	20.0	2.0			0.3	19.0	203.0	2.0	48.0	0.40		270	285
315	8.60		450.0	12.0	30.0	16.0					554.0	12.0	481.0			1530	1275
316																	
317																	
318	7.30		140.0	6.2	61.0	2.5		0.83	1.8	150.0	516.0	33.0	7.0	4.80		920	923
319	6.70		4160.0	149.0	327.0	456.0			1.8	41.0	112.0	704.0	8030.0	2.50		14000	14000
320	8.30		12700.0	198.0	7.7	382.0		7.60	617.0	40.0	347.0	53.0	968.0	1.50	0.50	31900	31900
321	7.90		275.0	2.6	70.0	11.0		0.12	20.0	42.0	129.0	2.0	470.0	0.50		1000	994
322	7.90		525.0	3.0	83.0	29.0		0.07	125.0	71.0	479.0	2.0	745.0	3.10		1830	1820
323	8.60		140.0	1.3	4.8	0.1		0.10	38.0	61.0	253.0	1.0	50.0	14.00		450	436
324	8.40	600	139.0	1.9	5.5	0.3		0.10	48.6	55.0	249.0	3.8	52.0	13.30		473	445
325	8.29	600	137.0	1.8	5.7	0.4		0.09	50.8	60.4	240.0	4.2	51.0	13.60		487	443

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
326	8.54	600	141.0	1.3	3.4			0.09	52.4	72.4	220.0	3.8	54.0	13.80		497	463
327	7.00	4760	1150.0	42.0	142.0	45.0	1.77		126.0		3240.0	4.0	253.0	1.30		3850	
328	8.10		2200.0	57.0				2.40	630.0	60.0	4140.0		1230.0				6220
329	9.30		105.0	0.4	0.9	0.1		0.05	5.2	53.0	217.0	11.0	22.0	6.30		310	310
330	7.00		367.0	1.4	110.0	105.0			1.0	44.0	182.0	411.0	640.0	0.80			1769
331	8.20		74.0	2.5	36.0	15.0		0.12	1.2	33.0	278.0	58.0	20.0	0.60		380	381
332	8.70		178.0	2.9	3.6	0.7		0.18	5.6	36.0	411.0	10.0	45.0	1.90		490	489
333																	
334																	
335	8.50	610	130.0		14.0		0.10		4.0	55.0	126.0	58.0	110.0	4.00			437
336	7.90		110.0	9.5	4.2	0.1		0.03	0.6	82.0	133.0	86.0	31.0	2.20		460	458
337	7.60	550	94.0	9.0	9.0	1.0	0.27	0.06	1.1	79.0	134.0	253.0	35.0	2.40			551
338	8.30		62.0	7.5	4.0	0.3			0.6	72.0	121.0	32.0	18.0	0.90		260	256
339	7.90		320.0	12.0	23.0	3.8			5.9	134.0	407.0	132.0	222.0	2.00		1060	1060
340	8.00		138.0	4.0	3.2	0.5			5.2	68.0	278.0	2.0	70.0	0.70		430	431
341			339.0	16.4	19.0	0.2			6.3	179.0	155.0	330.0	222.0	6.70			1200
342	7.40		320.0	15.0	7.7	0.1		0.24	6.3	200.0	112.0	320.0	220.0	7.60		1210	1210
343																	
344																	
345																	
346	7.80		403.0	5.7	15.0	3.5		0.10	7.6	58.0	182.0	400.0	218.0	4.40		1160	1200
347	7.70		300.0	9.0	28.0	0.1		0.15	7.6	110.0	63.0	370.0	220.0	5.40		1100	1110
348	7.82		330.0	8.5	26.0	0.6		0.13	7.6	110.0	84.0	390.0	220.0	5.20		1180	1180
349	8.30	1550	256.0	6.0	16.0		0.03	0.09	6.0	102.0	26.0	145.0	194.0	6.60			763
350			285.0	6.0	15.0			0.07	5.7	99.0	60.0	310.0	186.0	5.00			936

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
351			285.0	6.0	18.0			0.09	5.6	100.0	73.0	310.0	188.0	5.00			949
352	8.70	500	88.0		5.0		0.08		1.0	53.0	21.0	38.0	30.0	3.60			248
353	9.00		62.0	1.6	2.4	0.2			0.6	38.0	73.0	57.0	21.0	0.20		220	220
354			62.0	1.1	2.4			0.01		40.0	86.0	41.0	14.0			210	202
355	7.80		330.0	11.0	19.0	0.1		0.40	4.5	130.0	63.0	510.0	150.0	4.00		1220	1220
356																	
357																	
358																	
359	8.79	248	41.0	3.0	4.0				0.3	43.0	73.0	44.0	13.0	0.40			186
360																	
361																	
362																	
363	7.40								12.2							2230	
364	7.60	2500	480.0	50.0	16.0	0.6					239.0	275.0	476.0	3.00		1537	1537
365																	
366																	
367	8.95	230	51.0		1.0		0.06		0.4	39.0	40.0	29.0	24.0	2.40			198
368	6.70	330	34.0	8.0	19.0	9.0	0.42			67.0	183.0	25.0	13.0	0.30			267
369	8.10		250.0	6.5	20.0	0.1		0.15	3.8	110.0	47.0	300.0	160.0	2.10		900	899
370																	
371	8.02	280	64.5	7.3	3.2	8.7				86.5			18.9			258	258
372	7.70	1625	223.0	5.0	78.0	1.0	0.28	0.18	4.3	68.0	48.0	365.0	141.0	1.90			913
373	8.60		130.0	1.0	14.0				4.0	55.0	126.0	58.0	74.0	4.00			402
374	8.70		114.0	2.8	7.0	0.4			2.7	52.0	83.0	53.0	77.0	7.00	0.20	370	365
375	6.70	360	33.0	3.0	10.0	4.0	0.10	0.06	1.9	28.0	60.0	15.0	57.0	0.80			191

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
376																	
377		2690	514.0	33.0	34.0	8.0	0.04	1.11	7.1	77.0	1061.0	238.0	161.0	53.00	1.00		1651
378																	
379	7.30		310.0	10.0	22.0	4.2		0.84	1.1	75.0	429.0	340.0	28.0	9.20		1230	1430
380	6.70		1100.0	55.0	64.0	18.0		2.50	9.9	100.0	1880.0	920.0	200.0	4.50		4320	4324
381	7.00		1100.0	62.0	76.0	18.0		2.80	11.0	65.0	1880.0	910.0	210.0	4.30		4390	4394
382																	
383			10.0	2.2	1.1	0.2											13
384	7.60	2375	404.0	10.0	13.0	3.0		0.27	7.4	77.0	434.0	97.0	125.0	5.20			960
385	7.80		520.0	44.0	8.0	6.2				106.0	639.0	12.0	584.0			1600	1594
386																	
387	6.95		472.0	38.0	248.0	9.6			3.6	110.0	1757.0	2.0	180.0	1.30		1930	1934
388	9.30		8000.0	225.0	0.2	0.1		2.50	130.0	220.0	7700.0	2700.0	6000.0	26.00		25000	26342
389																	
390	6.57		510.0	43.0	180.0	38.0			4.2	97.0	1830.0	48.0	85.0	1.10		2500	1914
391																	
392																	
393																	
394	9.30		475.0	30.0	1.0	2.0			13.0	98.0	622.0	96.0	310.0	21.00	1.60	1530	1555
395																	
396																	
397																	
398	7.20	2260	373.0	24.0	6.0		0.03	2.23	11.4	233.0	466.0	117.0	250.0	12.00	1.60		1261
399	7.10		410.0	30.0	25.0					110.0	727.0	90.0	200.0	8.60	1.10	1240	1115
400	8.30		350.0	20.0	4.4	0.2		1.70	10.0	131.0	513.0	90.0	200.0	10.00	1.00	1100	1110

Casa Diablo Mammoth Lakes

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
401																	
402	6.60	2300	375.0	34.0	23.0	1.0	0.18	1.28	6.5	198.0	800.0	64.0	156.0	5.40			1261
403	8.20		140.0	9.0	21.0	3.0			3.7	32.0	276.0	41.0	74.0	3.20	0.20	510	510
404	6.60		320.0	28.0	23.0	1.2		1.60	8.1	205.0	696.0	59.0	150.0	4.60	0.40		1137
405	8.40		83.0	6.0	5.0				0.6		183.0	16.0	22.0	1.90	0.10		270
406																	
407	9.30		80.0	1.0	1.4	0.1		0.18	0.3	63.0	96.0	50.0	22.0	4.30		320	269
408	8.70	385	73.0	7.0	2.0		0.53	0.13	0.3	90.0	100.0	47.0	24.0	3.30			305
409																	
410																	
411																	
412																	
413	9.10		66.0	0.4	3.0	0.1		0.06	0.4	65.0	83.0	59.0	10.0	2.80		250	245
414	9.40		46.0	0.6	2.0				0.2	44.0	97.0	16.0	6.0	0.90		160	168
415	9.00	360	74.0		2.0				0.3	84.0	44.0	103.0	5.0	6.60			319
416	8.20	1270	235.0	4.0	33.0			0.14	1.9	34.0	14.0	406.0	70.0	9.20			804
417	7.30		202.0	4.0	103.0	39.0		0.13	1.0	40.0	810.0	165.0	48.0	0.70		900	1010
418	8.97		10.0	0.3	7.9	260.0			0.4	31.0	1201.0	13.0	34.0	0.10			946
419	6.90		604.0	34.0	218.0	224.0		1.80	59.0	95.0	1500.0	261.0	940.0	0.70	0.10	3190	3190
420	6.50		608.0	11.0	18.0	84.0		0.25	80.0	88.0	1620.0	8.0	266.0	1.60		1970	1970
421																	
422			212.0	8.2	12.0	5.7				62.0	55.0	110.0	255.0			710	713
423			176.0		0.8	36.0				111.0	183.0	2.0	270.0			690	690
424																	
425	6.40		136.0	5.6	22.0	349.0		0.55	23.0	111.0	1920.0		146.0	0.10		1750	1750

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
426																	
427	8.80		232.0	3.0	4.6	0.6		0.36	46.0	12.0		250.0	224.0	5.70	32.00	700	698
428																	
429																	
430																	
431																	
432	7.30		37.0	8.2	27.0	15.0			0.8	131.0	212.0	13.0	19.0	0.30		355	355
433																	
434																	
435																	
436																	
437																	
438																	
439																	
440																	
441																	
442																	
443																	
444																	
445																	
446	7.00	600	198.0	8.0	5.0	1.0	0.07	1.58	9.7	55.0	147.9		202.0	10.50		659	586
447	5.80	380	57.0	3.0	19.0	8.0			2.0	23.0	169.3		43.0	0.40		345	262
448	6.20	500	111.0	7.0	22.0	11.0	1.04	0.12	6.1	12.0	213.5	10.0	111.0	1.40		527	422
449	8.50	1150	206.0	9.0	2.0			1.95	9.8	56.0			201.0	11.50		518	
450	7.25	670	157.0	5.0	2.0	1.0	0.04	1.42	3.6	43.0	221.1	25.0	76.0	8.00		563	451

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
451	7.40	650	173.0	5.0	1.0		0.04	1.52	6.7	51.0	180.7		130.0	11.00		581	492
452	7.20	600	202.0	7.0	2.0		0.08	1.81	9.4	61.0	151.0		190.0	11.00		654	580
453	5.50	500	84.0		24.0	20.0	0.23		4.9	14.0	189.1		87.0	0.30		447	354
454	6.70	500	29.0		29.0	39.0	7.27		0.8	18.0	235.6		64.0	0.20		445	329
455	6.50	980	184.0	4.0	28.0	2.0	0.56	1.12	9.8	20.0	193.7		190.0	8.50		662	567
456	7.40	1200	190.0	6.0	5.0			1.99	7.4	54.0	179.2	16.0	156.0	9.50		646	558
457	7.75	1220	190.0	7.0	30.0	1.0	0.08	2.05	9.9	60.0	154.8		201.0	11.00		675	599
458			201.0	6.0	6.0			2.10	9.7	62.0			193.0	10.50		507	
459	7.30	1070	185.0	9.0	14.0	1.0	0.31	1.78	9.6	75.0	159.4		187.0	11.00		673	594
460	6.97	910	179.0	10.0	22.0	4.0	0.12	1.53	9.9	39.0	166.2	13.0	188.0	9.10		615	557
461	7.80	510	94.0	3.0	30.0	3.0	0.05		4.3	9.0	207.7		88.0	2.60		257	151
462	6.85	895	177.0	12.0	15.0	5.0	0.54	1.18	10.1	35.0	209.7		194.0	7.80		478	371
463	6.65	400	66.0		19.0	8.0	0.09	0.20	2.0	25.0	130.4	26.0	63.0	1.30		364	300
464	6.90	580	121.0	3.0	23.0	12.0	0.44	0.07	6.7	18.0	150.2	11.0	117.0	3.60		486	412
465	6.30	390	25.0		39.0	12.0				14.0	218.0	23.0	13.0	0.40		367	260
466	6.70	1190	188.0	7.0	8.0	1.0	0.21	1.75	10.1	31.0	172.3		195.0	10.00		645	560
467	6.65	1100	180.0	12.0	11.0	4.0		1.14	10.2	35.0	203.0		194.0	7.00		678	578
468	5.94	900	171.0	13.0	11.0	6.0	0.67	1.06	9.8	30.0	188.0		186.0	7.10		644	551
469	5.90	410	79.0		21.0	10.0	1.96	0.48	3.9	21.0	172.0		67.0	3.00		404	319
470	6.90	1050	203.0	7.0	18.0	9.0	0.04	0.59	11.7	20.0	284.4	11.0	189.0	0.70		775	635
471	6.50	1180	203.0	5.0	25.0	8.0	0.12	0.32	8.9	29.0	302.7		181.0	2.20		797	648
472	6.65	1120	191.0	4.0	10.0	1.0	0.14	1.40	9.4	42.0	165.5		191.0	8.50		643	561
473	6.35	490	62.0	4.0	27.0	8.0	0.08		1.8	19.0	196.0	13.0	39.0	0.50		389	292
474	6.80	1150	141.0	6.0	54.0	21.0	2.23		3.8	17.0	243.2	37.0	190.0	0.40		737	617
475	6.80	450	56.0		34.0	11.0	2.00		1.1	23.0	162.4	29.0	38.0	0.30		380	300

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
476	6.80	840	84.0	4.0	47.0	19.0	1.51		0.9	22.0	292.0	28.0	53.0	0.20		572	428
477	6.99	850	59.0	4.0	65.0	25.0	0.12		0.5	20.0	163.9	50.0	43.0	0.20		454	372
478	6.95	800	152.0	4.0	12.0	4.0	0.21	0.49	7.5	24.0	191.4	41.0	140.0	4.80		600	506
479	6.88	1030	32.0	7.0	234.0	46.0	4.75			11.0	327.1	85.0	26.0	0.30		746	585
480	6.77	460	22.0		57.0	11.0				10.0	237.1	28.0	8.0	0.30		399	282
481	6.13	540	27.0		67.0	17.0	0.36			10.0	253.9	16.0	28.0	0.40		443	318
482	6.40	250	31.0		22.0	6.0	0.07		0.3	5.0	157.8	15.0	15.0	0.10		277	199
483	6.15	500	60.0		52.0	13.0	1.27			15.0	311.9	10.0	13.0	0.40		492	338
484	6.18	135	11.0		13.0	3.0	0.15			12.0	41.9	10.0	5.0	0.10		104	83
485	5.80	112	11.0		11.0	4.0	0.17			11.0	29.7	16.0	6.0	0.10		112	97
486	5.90	510	17.0		39.0	29.0				18.0	261.5	11.0	9.0	0.40		408	279
487	6.50	780	185.0	9.0	7.0	3.0	0.06	1.72	9.6	50.0	157.8		189.0	10.50		644	564
488	8.80	1430	211.0	9.0	3.0			2.17	10.7	54.0	156.3	10.0	216.0	12.00		712	635
489	8.00	860	184.0	5.0	17.0	1.0	0.14	1.85	3.9	38.0	376.7	20.0	81.0	6.80		735	570
490	7.82	1420	218.0	6.0	9.0	1.0	0.03	2.30	7.0	36.0	270.7	35.0	162.0	8.30		741	608
491	8.05	1420	192.0	6.0	10.0			2.02	8.8	41.0	203.6	19.0	187.0	10.70		681	581
492	8.40		222.0	10.0	4.0			2.26	11.0	139.0	121.0	12.0	219.0	12.30	0.10	660	610
493	8.40	1420	222.0	10.0	4.0		0.05	2.26	11.1	56.0	121.2	12.0	219.0	12.30		682	622
494	8.48	1410	213.0	9.0	13.0		0.05	2.16	10.6	53.0	128.1	10.0	217.0	12.20		663	619
495	8.59	1350	206.0	9.0	8.0			2.09	10.4	51.0	131.9	10.0	212.0	11.80		663	598
496	7.60	1320	200.0	8.0	6.0			2.04	10.0	51.0	184.5	11.0	209.0	12.00		781	691
497	7.20	250	13.0		15.0	11.0		0.12	0.1	9.0	113.6	20.0	7.0	0.20		192	136
498	7.24	1180	210.0	4.0	4.0	1.0	0.26	1.77	8.3	39.0	224.2	30.0	192.0	10.00		715	605
499	7.25	1680	282.0	7.0	31.0	3.0	0.14	3.31	9.1	28.0	199.0	19.0	206.0	7.90		796	698
500	7.32	1300	212.0	6.0	5.0	1.0	0.21	1.63	8.9	48.0	224.9	10.0	204.0	8.70		741	630

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
501	7.40	1270	200.0	7.0	6.0		0.12	1.59	9.7	59.0	219.6	10.0	191.0	9.10		724	616
502	7.41	1350	202.0	7.0	5.0		0.15	1.60	9.8	61.0	218.8	10.0	191.0	9.10		727	619
503	7.40	760	163.0	3.0	7.0		0.08	1.97	2.9	15.0	356.1	20.0	66.0	6.50		642	467
504	7.02	800	117.0	4.0	14.0	5.0	0.85	0.20	3.3	28.0	288.2	47.0	55.0	1.90		538	396
505	7.25	500	112.0		7.0	2.0	0.13	0.47	3.8	25.0	260.8	10.0	49.0	3.60		496	368
506	6.71	790	112.0	4.0	85.0	27.0	0.03		0.2	20.0	363.0	28.0	174.0	0.20		835	656
507	7.85	1390	205.0	9.0	6.0			2.09	10.3	54.0	174.0	14.0	212.0	11.50		719	633
508	6.40	1120	239.0	7.0	10.0	2.0	0.31	2.28	8.9	38.0	279.8	37.0	198.0	8.80		851	713
509	6.94	950	249.0	6.0	10.0	1.0		2.76	9.4	32.0	224.9	54.0	205.0	9.00		823	712
510	7.15	910	189.0	6.0	12.0		1.72	1.99	8.0	28.0	258.0	16.0	155.0	10.00		707	580
511	7.00	760	143.0	10.0	6.0	3.0	0.43	0.93	8.1	34.0	316.4	11.0	76.0	4.20		633	477
512	6.95	1120	238.0	7.0	8.0	3.0	0.59	1.48	12.6	37.0	359.9	10.0	191.0	3.10		922	744
513	6.20	450	75.0		25.0	3.0	0.04			23.0	318.7	20.0	7.0	0.20		495	334
514	6.35	122	10.0		12.0	4.0	0.46			19.0	54.1	10.0	6.0	0.10		139	112
515	5.85	282	41.0		31.0	5.0	0.19			25.0	224.9	23.0	5.0	0.20		380	266
516	5.90	265	33.0		24.0	2.0	0.11			21.0	147.2	12.0	5.0	0.10		268	193
517	6.91	118	23.0	7.0	5.0	4.0	1.33			36.0	127.0	10.0	6.0	0.30		240	176
518	6.88	880	138.0	5.0	14.0	8.0	1.50		8.0	24.0	275.3	15.0	130.0	1.20		641	501
519	6.48	550	74.0	8.0	18.0	11.0	0.68	0.10	3.3	25.0	270.0		68.0	0.30		509	372
520	6.42	650	107.0	11.0	15.0	9.0	1.02	0.27	5.5	25.0	264.0		108.0	0.30		577	443
521	6.08	710	96.0	10.0	21.0	13.0	0.20	0.16	5.4	30.0	268.0		103.0	0.30		578	442
522	6.30	370	49.0		22.0	2.0	0.19			16.0	217.0	11.0	6.0	0.20		346	236
523	6.30	160	9.0		7.0	2.0	3.92			9.0	69.0		8.0			135	104
524	6.72	400	69.0	14.0	18.0	6.0	2.78	0.10	1.5	32.0	292.0		33.0	0.30		500	352
525	6.78	350	63.0	17.0	14.0	3.0	0.14	0.05	0.2	43.0	289.0		6.0	0.20		466	320

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
526	6.00	155	8.0	5.0	10.0	6.0	1.13			24.0	114.0		7.0			209	152
527	6.00	270	17.0	7.0	16.0	9.0	0.24			29.0	166.0		7.0	0.20		282	198
528	5.91	1010	61.0	3.0	144.0	21.0	0.10	0.13		18.0	221.0	125.0	12.0	0.20		629	516
529	6.15	260	21.0		49.0	9.0	0.16			10.0	275.0	85.0	7.0	0.20		481	341
530	6.10	370	54.0		20.0	3.0				22.0	243.0	31.0	5.0	0.30		400	277
531	6.32	490	55.0		16.0	20.0	0.76	0.28	1.8	16.0	254.0	21.0	37.0	0.20		445	316
532	6.20	470	40.0	12.0	21.0	11.0	6.72			34.0	165.0	68.0	7.0	0.20		387	303
533	6.10		38.0		50.0	11.0	0.04	0.08		23.0	202.0	39.0	15.0	0.30		401	299
534	6.45		236.0	8.0	15.0	2.0	0.36	1.78	12.7	37.0	207.0		194.0	11.00		746	644
535	6.30		162.0	7.0	13.0	5.0	0.79	0.71	7.2	29.0	228.0		105.0	4.70		583	471
536	5.99		121.0	4.0	19.0	18.0	0.07	0.06	8.3	16.0	226.0		107.0	1.70		541	430
537	6.30		69.0	13.0	25.0	4.0	7.95		0.2	46.0	238.0		6.0	0.20		413	296
538	6.39		128.0	15.0	11.0	3.0	1.23	0.06	0.8	38.0	336.0	10.0	25.0	0.30		589	424
539	6.25		100.0	11.0	19.0	9.0	3.25		0.3	27.0	313.0	15.0	18.0	0.40		538	384
540	6.51		110.0	12.0	17.0	10.0	1.18		0.3	35.0	332.0	12.0	11.0	0.40		552	389
541	5.64		12.0	4.0	12.0	5.0				32.0	107.0		8.0	0.10		201	148
542	6.10		31.0	10.0	11.0	8.0				29.0	192.0		7.0	0.40		310	215
543	6.33		173.0	11.0	13.0	5.0		1.20	10.1	32.0	230.0		191.0	7.50		691	578
544	7.40		167.0	11.0	13.0	4.0		0.73	10.2	27.0	236.0		173.0	6.50		668	552
545	8.00		51.0	8.0	15.0	8.0		0.24	0.3	30.0	217.0	12.0	29.0	0.70		276	169
546	6.35		183.0	7.0	16.0	2.0		1.46	9.8	32.0	153.0		229.0	10.00		667	592
547	8.30		1780.0	8.4	8.8	1.9		0.30	5.0	25.0	3230.0	3.0	935.0	2.30		4360	4360
548	8.30		65.0	5.0	40.0	67.0			0.1		537.0	19.0	46.0	0.20		590	592
549																	
550																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
551																	
552																	
553																	
554	7.70										209.0		157.0				259
555	8.10		442.0	10.0	6.0	4.0			3.9	23.0	602.0	81.0	284.0	0.90		1150	1156
556	8.00		63.0	2.0	55.0	26.0			0.1		254.0	64.0	72.0	0.60		440	440
557	9.40		92.0	1.6	2.8	0.1		0.05	0.9	79.0	78.0	26.0	69.0	8.00		320	319
558	8.30	600	108.0	3.0	2.0		0.09	0.43	2.7	68.0	82.0	34.0	103.0	2.90			371
559																	
560			41.0	9.7	20.0	11.0				286.0		963.0				1400	1402
561																	
562			43.0	8.2	49.0	12.0			1.0	162.0	114.0	174.0	5.0	0.20			510
563																	
564																	
565																	
566	8.10		202.0	4.0	11.0	0.0			5.0	64.0	54.0	39.0	235.0	5.50			598
567	8.70		199.0	3.0	6.0	0.0			4.4	41.0	59.0	38.0	244.0	4.40			567
568	6.05	2650	505.0	35.0	79.0	19.0	1.14	0.48	12.0	22.0	1190.0	46.0	417.0	1.50			1743
569	9.35	240	50.0		2.0			0.05	0.4	57.0		49.0	8.0	0.30			222
570	7.90	2320	405.0	8.0	37.0		0.16	0.40	7.8	57.0	50.0	178.0	462.0	2.20			1185
571	6.80		386.0	5.5	14.0	4.6			6.1	65.0	72.0	222.0	435.0	0.40		1180	1170
572	7.80		71.0	2.0	4.0	1.0			1.2		189.0	1.0	22.0				195
573	6.80		25.0	5.1	8.0	2.4			0.2	95.0	73.0	22.0	6.0	0.70		200	200
574	8.20		35.0	6.3	1.0	1.8			0.2	82.0	113.0	1.0	6.0			190	190
575	7.70		35.0	1.5	1.0	0.4			0.4	87.0	88.0	2.0	3.0	0.50		180	170

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
576	7.60		400.0	6.3	26.0	1.3		0.50	7.8	80.0	76.0	270.0	440.0	1.50			1270
577	8.00		450.0	13.0	39.0	0.1		0.65	8.8	98.0	52.0	370.0	545.0	2.60		1600	1570
578																	
579																	
580	9.30		83.0	0.7	4.0				0.4	54.0	20.0	110.0	12.0	3.30		300	300
581																	
582	8.00		56.0	3.0	26.0	44.0			0.1	20.0	131.0	20.0	46.0	0.40		280	280
583																	
584	8.10		15.0	1.2	21.0	5.5			0.1	29.0	108.0	6.0	5.0	0.40			161
585	9.60		106.0			0.1			1.4	56.0	98.0	32.0	15.0			320	260
586																	
587																	
588			193.0		54.0	14.0				29.0	58.0	233.0	229.0			850	588
589			62.0		1.0					40.0	47.0		19.0	1.60		250	185
590	8.80		34.0	3.0	6.0				0.2		42.0	6.0	14.0	0.20		120	100
591			381.0	10.0	246.0	2.0			7.1		88.0	133.0	507.0			1210	1320
592			79.0		6.0	4.1				68.0	112.0	36.0	52.0			300	300
593	10.10	590	75.0	4.0	3.0	1.0	0.04		0.8	54.0		17.0	21.0	4.90			254
594																	
595																	
596			69.2	3.3	107.0	25.5			0.2	12.6				0.40			
597	7.30		117.0	5.0	98.0	29.0			0.4	40.0	304.0	184.0	129.0	0.40		850	750
598	7.10		74.0	4.5	85.0	24.0			0.1	48.0	228.0	141.0	98.0			640	600
599			330.0	3.0	317.0	41.0			0.2	47.0	390.0	884.0	303.0	0.20		2280	2110
600	7.80		62.0	3.0	44.0	13.0			0.1		183.0	65.0	51.0	0.40		380	330

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
601	7.00		365.0	10.0	250.0	95.0			0.3	58.0	219.0	844.0	433.0	0.80		2260	2160
602	7.80		76.0	2.0	49.0	19.0			0.1	37.0	268.0	33.0	64.0	0.10		470	410
603	7.80		49.0	0.7	30.0	12.0			0.1	38.0	192.0		43.0	0.50		880	270
604	7.40		45.0	0.9	49.0	15.0			0.0	33.0	138.0	31.0	89.0	0.10		470	330
605	9.20		244.0	1.0	7.0				4.4	71.0	6.0	14.0	347.0			720	715
606	7.50		82.0	4.0	74.0	52.0			0.1		189.0	226.0	142.0	0.40			675
607	8.90	1580	214.0	6.0	17.0	1.0	0.14	0.09	3.3	40.0	9.0	10.0	355.0	4.10			673
608	7.60		196.0	2.2	89.0	43.0			0.1	38.0	363.0	184.0	234.0	0.70		1130	965
609	8.20		143.0	1.4	98.0	38.0			0.1		339.0	131.0	209.0	0.40		880	790
610																	
611	9.10		56.0	3.0	3.0	1.0			0.1	37.0	32.0	26.0	26.0	2.20			207
612																	
613	7.80		223.0	4.0	42.0	3.0			1.4	18.0	69.0	350.0	136.0	0.60		1120	800
614																	
615	9.00		55.0	1.0	5.0	1.0			0.0	13.0	83.0	31.0	17.0	0.80		190	170
616	9.00		77.0	1.0	2.0				0.2		90.0	44.0	21.0	2.80		720	200
617	9.20		66.0	1.0					0.9		103.0	37.0	11.0	2.40		200	170
618	8.30		139.0	1.0	14.0	3.0			0.2		58.0	99.0	145.0	4.80		420	435
619	8.40		162.0	1.5	8.0				0.5	14.0	73.0	111.0	133.0	3.50		450	470
620	8.60		380.0	14.0	53.0	28.0		0.55	2.1	24.0	182.0	307.0	440.0	2.30		1500	1350
621																	
622																	
623																	
624	7.80		700.0	4.0	38.0	27.0			2.8		234.0	144.0	968.0	3.00		2000	2000
625	8.30		5000.0		1110.0	800.0			410.0		603.0	10100.0	3260.0			24500	21340

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
626	8.48												90.0				90
627	8.82												88.0				88
628													846.0				846
629	8.04												66.0				66
630	9.01												79.0				79
631	6.50	2270	204.0	9.0	216.0	31.0	0.19	0.09	1.0	20.0	122.0	145.0	515.0	10.00			1217
632	7.69												763.0				763
633	6.50	710	113.0	3.0	10.0		0.49	0.10	0.6	20.0	107.0	83.0	82.0	8.00			373
634	8.80		272.0	6.8	32.0	0.7			1.3	69.0	17.0	490.0	100.0	10.00			1000
635	7.40		111.0		158.0	30.0			5.1		494.0	80.0	183.0			1030	810
636	7.50		405.0		102.0	23.0			0.9		296.0	233.0	533.0			1555	1440
637	7.94												1036.0				1036
638	7.20		316.0		128.0	2.1				29.0	58.0	380.0	395.0	2.20		1290	1290
639	7.50		422.0		154.0	9.4				16.0	34.0	475.0	578.0			1670	1670
640	8.00		223.0		55.0	10.0				30.0	76.0	212.0	268.0	1.80		840	840
641	8.12												212.0				212
642	8.00												466.0				466
643	7.60		927.0		108.0	24.0					104.0	1060.0	845.0	4.00			3010
644	6.70	2350	423.0	7.0	39.0	8.0	0.23	0.20	1.0	24.0	108.0	632.0	421.0	2.60			1613
645	7.50		1510.0		150.0	14.0				45.0	65.0	800.0	1990.0	5.20		4550	4540
646	7.60		427.0		67.0	24.0				22.0	204.0	575.0	301.0	1.70		1520	1520
647	7.70		268.0	217.0	38.0	8.5			0.6	18.0	217.0	220.0	245.0	2.90		930	910
648	7.90		257.0		23.0	0.1				17.0	240.0	150.0	183.0	2.30		750	750
649	7.60		376.0		110.0	1.8			1.3	20.0	80.0	365.0	415.0	1.70		1140	1330
650	6.60	3025	445.0	10.0	193.0	12.0	0.40	0.15	2.5	19.0	55.0	244.0	575.0	2.40			1537

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
676	7.90		46.0	3.0	12.0				0.1	18.0	75.0	36.0	24.0	0.70		190	180
677	8.40		215.0	3.0	14.0	0.6			0.5	54.0	37.0	341.0	60.0	17.00		700	730
678			365.0	5.0	23.0	1.0	0.11	0.10	1.5	26.0			221.0	10.80			1104
679			196.0	3.0	17.0	5.0			0.4	14.0			59.0	9.50			752
680	9.20		145.0		10.0	0.6					57.0	176.0	60.0	18.00		450	450
681	7.70		347.0	11.0	24.0	18.0			1.3	43.0	44.0	596.0	178.0	4.20		1000	1240
682	8.20		74.0	0.8	2.0				0.4		134.0	19.0	17.0	5.00		330	190
683	8.70	600	122.0		5.0					27.0	214.0	207.0	12.0	14.00			337
684																	
685																	
686																	
687	8.20		308.0	14.0	30.0	2.9		0.30	3.5	104.0	86.0	578.0	61.0	9.00	0.10	1150	1150
688																	
689	7.10	1700	208.0	7.0	11.0	12.0	0.04	0.18	1.9	50.0	56.0	315.0	65.0	5.00			729
690	8.20		255.0	12.0	29.0	2.1		0.40	3.2	94.0	83.0	454.0	52.0	8.00		1000	950
691	7.20	1300	173.0	7.0	10.0			0.15	1.7	51.0	74.7	281.0	56.0	5.50			644
692																	
693																	
694																	
695	6.60	1600	204.0	11.0	32.0	1.0		0.23	2.5	74.0	96.0	235.0	67.0	4.40			700
696	7.60	440	36.0	6.0	42.0	6.0					180.0	48.0	16.0	0.40			
697																	
698			90.0		40.0					50.0	33.0	144.0	10.0			410	350
699																	
700																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
701																	
702																	
703																	
704																	
705			114.0							10.0	85.0	133.0	21.0			415	320
706																	
707																	
708	8.60		84.0	1.0	11.0				1.3		110.0	23.0	50.0	3.00			240
709	6.50	530	48.0		37.0	12.0	0.57		0.1	27.0	110.0	79.0	21.0	1.00			288
710																	
711	7.00	850	105.0		17.0				0.6	24.0	70.0	150.0	36.0	4.00			359
712																	
713																	
714	7.59	725	113.0	2.0	35.0	7.8			0.1			129.0	146.0	2.30			460
715																	
716																	
717	6.70	720	86.0		27.0	4.0				20.0	100.0	106.0	27.0	1.20			352
718																	
719																	
720																	
721																	
722																	
723																	
724																	
725	8.02	655	71.8	2.5	54.4	7.3			0.5				29.0	1.74			420

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
726																	
727	7.91	630	37.0	1.7	64.0	16.0	0.05					68.0	25.0	0.38			372
728	8.05	650	42.0	1.7	64.5	16.7	0.07					72.0	27.5	0.34			389
729																	
730																	
731																	
732	6.20	425	27.0	4.0	40.0	7.0				25.0	198.0	30.0	7.0	0.60			255
733																	
734																	
735																	
736																	
737	6.20	440	15.0	3.0	57.0	10.0				17.0	230.0	26.0	6.0	0.50			269
738																	
739																	
740																	
741																	
742																	
743																	
744																	
745																	
746	6.60	483	25.0	4.0	58.0	9.0	0.25			21.0	236.0	47.0	8.0	0.60			288
747																	
748																	
749																	
750																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
751																	
752																	
753																	
754																	
755																	
756	7.80	640	96.0		3.0				2.4	27.0	80.8	34.0	96.0	6.10			336
757																	
758	7.40	520	75.0		8.0				1.5	21.0	124.0	20.4	58.0	3.60			272
759																	
760																	
761	7.60	365	60.0		4.0				0.6	15.0	140.0	16.9	20.0	2.60			212
762																	
763																	
764																	
765																	
766																	
767																	
768																	
769																	
770																	
771																	
772																	
773																	
774																	
775																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
776																	
777																	
778																	
779																	
780																	
781																	
782																	
783																	
784																	
785																	
786																	
787																	
788																	
789																	
790																	
791																	
792	9.50		7.5	0.7	1.6	0.5			0.3	57.0	42.0	57.0	43.0	1.60		250	290
793	9.00	580	105.0		8.0	1.0	0.26		0.6	24.0	53.0	72.0	84.0	0.20			338
794	7.40		29.0	5.0	42.0	12.0			0.0	45.0	151.0	72.0	18.0	0.40		300	300
795	9.40	550	77.0	4.0	3.0		0.08	0.08	0.6	54.0	44.0	23.0	13.0	0.40			244
796	7.40		165.0	6.0	87.0	75.0			0.1		224.0	317.0	2.0	0.20		1170	940
797	8.59												99.0				99
798	7.88												326.0				326
799	7.90												286.0				286
800	8.63												443.0				443

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
801	8.19												184.0				184
802	8.50												143.0				143
803	7.00	1040	205.0	4.0	24.0	2.0	0.17		1.1	26.0	88.0	122.0	202.0	0.70			633
804	8.12												167.0				167
805	8.10												101.0				101
806	7.90		126.0	5.4	84.0	57.0			0.2	40.0	267.0	380.0	92.0	0.40	0.80	920	920
807	8.80	445	81.0		28.0	1.0	0.25		0.8	36.0	38.0	64.0	75.0	0.60			330
808	7.48												58.0				58
809	9.80		101.0	1.0	1.0	1.0			0.6	53.0	90.0		91.0	18.00		320	310
810	9.65												81.0				81
811	7.60		48.0	3.0	52.0	19.0			0.4		256.0	40.0	40.0	0.80		360	330
812	7.20		215.0	2.0	114.0	70.0			0.1	30.0	173.0	58.0	515.0	0.60		1450	1090
813	7.50		280.0	5.0	359.0	122.0			0.0	40.0	188.0	112.0	1200.0	0.40		2660	2210
814	7.40		199.0	2.0	95.0	60.0			0.5	44.0	426.0	142.0	297.0	0.60		1185	1050
815	7.50		547.0	6.0	226.0	121.0			0.4	33.0	341.0	213.0	1230.0	0.60		3000	2550
816	8.00		230.0	4.0	148.0	64.0			0.1	13.0	146.0	99.0	644.0	0.20		1610	1275
817	7.90		316.0		32.0	31.0			0.4		323.0	169.0	298.0	0.80		1070	1000
818	7.80		342.0	10.0	42.0	50.0			0.4	62.0	616.0	232.0	349.0	0.60		1220	1390
819	7.10		437.0	16.0	42.0	1.0			0.7	18.0	43.0	104.0	700.0	2.10		1470	1475
820	7.10		391.0	2.0	54.0	1.0			1.1	200.0	49.0	43.0	651.0	2.60		1310	1400
821	7.90		63.0	4.0	69.0				1.0	18.0	27.0	79.0	613.0	4.90		1210	870
822																	
823																	
824																	
825																	

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
826																	
827																	
828																	
829																	
830																	
831																	
832																	
833																	
834																	
835																	
836																	
837																	
838																	
839																	
840																	
841																	
842	8.30		18.0	0.3	36.0	51.0			0.4	43.0	251.0	113.0	10.0	0.10		400	400
843	8.00		196.0	6.0	94.0	67.0		0.13	2.4	17.0	534.0	312.0	124.0	0.60		1090	1080
844	8.00		505.0	4.0	6.0	0.1		0.10	2.8	68.0	596.0	273.0	250.0	2.50			1400
845	7.10		720.0	11.0	116.0	0.5		0.52	9.2	85.0	56.0	558.0	840.0	4.90		2300	2370
846	8.30		465.0	5.1	5.0	0.6		0.12	2.0	79.0	578.0	252.0	184.0	2.70			1310
847	8.20		195.0	5.0	15.0	8.0			1.2		340.0	164.0	33.0	0.80			600
848	8.70	2470	490.0	9.3	5.0	1.0			6.8		194.0		675.0	3.40			1310
849																	
850	8.40		325.0	2.3	4.0	1.3		0.06	1.3	52.0	467.0	141.0	133.0	1.70		900	900

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
851	8.20		520.0	11.0	11.0	5.5		0.10	2.3	63.0	642.0	239.0	315.0	1.90		1490	1480
852																	
853																	
854																	
855	7.00	1000	70.0	14.0	50.0	34.0			0.2	38.0	448.0	18.0	79.0	4.00			540
856	7.20	1450	170.0	25.0	31.0	26.0			1.1	55.0	706.0		34.0	0.70			691
857	6.60	950	51.0	13.0	60.0	37.0	0.08			29.0	483.0		43.0	0.50			482
858	7.90		308.0	4.0	101.0	24.0			0.7		132.0	656.0	172.0	1.40		1430	1330
859	7.80		2100.0	46.0	34.0	31.0			5.4		1547.0	33.0	2550.0	1.90		5610	5560
860	7.80		131.0	2.0	50.0	2.0			0.2		186.0	189.0	53.0	0.30		560	520
861	7.10	900	151.0		23.0	4.0	0.24	0.12	1.2	29.0	419.0	90.0	53.0	0.60			565
862	8.20		215.0	2.0	37.0	8.0			1.3	18.0	261.0	182.0	138.0	0.60		750	730
863	8.90		1010.0	5.0	16.0	4.0			3.9	24.0	972.0	1.0	915.0	5.00		2550	2550
864	8.80		105.0	1.0					0.3	40.0	122.0	35.0	11.0	2.60		300	300
865	8.20		163.0	1.2	4.4				3.0		226.0	36.0	101.0	2.80		540	420
866	8.20		110.0						0.4	25.0	200.0	55.0	8.0	2.80		300	296
867	8.00	540	128.0	2.0	5.0	1.0	0.04		1.3	29.0	235.0	14.0	50.0	3.60		380	350
868																	
869	8.20		258.0	2.3	2.0			0.20	6.0	60.0	570.0	17.0	46.0	12.00		690	685
870	7.80		720.0	5.5	89.0	6.3		0.68	14.0	24.0	248.0	17.0	1160.0	5.00		2170	2220
871	2.80				3.0		0.36										
872	7.20		700.0	23.0	85.0	35.0		0.77	8.3	23.0	2010.0	74.0	193.0	1.80		2150	2130
873	7.00		274.0	6.0	13.0	134.0		0.16	17.0	101.0	1240.0	2.0	130.0	0.40		1300	1290
874	7.70		272.0	7.5	38.0	16.0		0.05	2.0	21.0	544.0	8.0	222.0	1.60		850	840
875	7.20		66.0	8.4	83.0	19.0			0.1	65.0	310.0	113.0	67.0				573

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
876	8.60	2000	296.0	5.0	50.0			0.15	14.8	48.0		204.0	148.0	2.40			804
877	7.60		96.0	1.4	12.0	3.6			4.0	41.0	201.0	2.0	57.0	1.30		320	318
878	8.10		565.0	20.0	88.0	0.6		0.66	32.0	73.0	40.0	276.0	850.0	1.20	0.90	1940	1930
879	7.80	600	104.0		5.0	1.0	0.06		5.8	31.0	175.0	120.0	78.0	2.70			436
880	9.30		84.8		2.1	0.0	0.74		2.0	37.3	119.0	5.0	32.0	0.90			260
881																	
882																	
883																	
884			43.0	15.0	38.0	31.0			0.2	259.0		1034.0	1.0				1420
885	7.10		294.0	8.5	13.0	2.1			5.5	101.0	147.0	153.0	270.0	1.60		920	920
886																	
887	7.42		380.0	5.6	20.0	0.6		0.35	7.4	85.0	103.0	220.0	390.0	1.80			1160
888	8.20		56.0						1.1		129.0			0.50			120
889																	
890	7.70		78.0	2.4	1.0	1.6			2.1	77.0	169.0	6.0	11.0	0.50		265	265
891	7.50		96.0	4.4	2.0	1.0			1.5	67.0	114.0	25.0	76.0			330	330
892	9.15	480	94.0		0.5			0.05	2.4	93.0			32.0	1.80			334
893																	
894	10.00		82.0	0.7	4.0			0.07	1.0	49.0	41.0	16.0	90.0	0.40		280	270
895	6.40	13900	3906.0	102.0	168.0	46.0	0.16		103.0	66.0	3630.0	39.0	4380.0	0.80			10622
896			543.0	4.8	143.0	2.9			15.0	82.0		365.0	788.0			2000	1940
897	8.20		46.0	1.2	3.3	0.2					111.0	1.0	16.0			135	120
898																	
899																	
900	2.30		14.0	3.4		16.0		0.01	0.1	213.0		967.0	2.0	0.30		1550	1550

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
901	6.75		6110.0	173.0	453.0	228.0			331.0	71.0	6110.0	47.0	7740.0	2.00		18300	18165
902																	
903	7.90		170.0	2.7	0.0	54.0		0.12	8.2	56.0	432.0	2.0	243.0	0.40		790	788
904																	
905	1.80		12.0	5.0	47.0	281.0			3.1	225.0		5710.0	1.0			7770	6280
906																	
907																	
908	6.87		955.0	31.0	13.0	4.6			85.0	133.0	2450.0	6.0	56.0	10.00		2500	2500
909	8.50		29.0	3.9	31.0	19.0		0.04	1.0	105.0	246.0	1.0	16.0	0.20		330	327
910	8.20		26.0	3.8	21.0	14.0		0.04	0.1	88.0	187.0	8.0	6.0	0.40		260	260
911	7.55	650	104.0	12.0	18.0	7.0		0.07	3.3	92.0	296.0	36.0	69.0	0.90			488
912	8.60		73.0	12.0	19.0	9.8		0.09	0.8	77.0	172.0	33.0	51.0	0.50		370	370
913	6.80	750	95.0	9.0	12.0	2.0	0.45	0.42	3.4	68.0	181.0		142.0	2.80			426
914	7.10	375	53.0	5.0	4.0	1.0	0.21	0.20	2.1	67.0	120.0	44.0	46.0	2.50			286
915																	
916	8.00	1350	256.0	12.0	9.1	0.1	0.04		0.9	90.0	135.0	5.4	324.0	7.30			842
917																	
918	8.10	1780	290.0	13.5	13.0	0.5					146.0	3.5	412.0	6.60			1140
919	8.30	1850	400.0	21.0	11.0	1.7	0.20	2.10	19.4	98.7	127.0		579.0	8.20		1287	
920	7.40	700	55.0		32.0	16.5	0.70				283.0	12.5	22.5	0.46			357
921	7.10	240	15.0		17.0	12.0	2.50										156
922	7.60	325	12.0		22.0		0.50		0.1								
923	7.50	270	4.7		19.0	16.0	0.30		0.1			12.0	4.2				
924																	
925	7.70		19.0	2.0	34.0	19.0	0.11	0.05	0.1	100.0	196.0	2.0	9.0	0.20			282

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
926	7.42		27.0	3.0	24.0	17.0	0.36			107.0	231.0	1.2	9.0	0.22			316
927																	
928																	
929	7.90		49.0	7.0	16.0	16.0	0.23	0.08	0.4	99.0	285.0	1.2	20.0	0.42			362
930																	
931			24.4	3.6	4.3	12.5			0.3	99.7	188.0		10.0	0.18			
932	7.53		38.0	5.0	15.0	10.0	0.31		0.3	118.0	196.0	1.4	11.0	0.57			310
933		526	82.0	12.0			0.24	0.12	0.4		313.0		10.0				
934																	
935	7.40		72.0	10.0	26.0	10.0	0.29	0.11	0.3	108.0	280.0	23.0	18.0	0.30			426
936	7.60		95.0	5.0	20.0	5.0	1.10	0.13	0.2	126.0	293.0	15.0	9.0	0.30			446
937																	
938	7.40	230					0.24		0.1							180	
939																	
940																	
941	6.02	160	15.0	4.0	15.0	10.0		0.05		99.0	131.0		8.0	0.30			281
942	6.90	285	26.0	4.0	20.0	14.0				97.0	195.0		8.0	0.20			265
943	7.10		12.0		2.2	0.8	2.70				24.0	7.6	6.2	0.10			80
944																	
945	7.38	510	113.0	10.0	3.0	1.0	0.37	0.07	3.2	71.0	162.0		101.0	0.70			381
946																	
947	6.95	315	56.0	11.0	9.0	3.0		0.05	0.9	76.0	133.0		50.0	0.90			273
948	5.98	170	18.0	5.0	54.0	8.0	0.18			98.0	102.0		15.0				300
949																	
950	8.20	645	137.0	9.8	4.1	0.2			4.4		132.0	1.5	131.0	2.60			

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
951	6.24	250	32.0	1.4	19.0	8.0	0.10			61.0	145.0		15.0	0.40			280
952			80.0	3.4	2.0						143.0		30.1	1.06		220	
953	7.78	225	51.0	5.0	2.0		0.07	0.10	0.3	52.0	142.0		12.0	0.60			193
954	6.60	105	25.0	5.0	8.0	5.0	2.69			96.0	114.0		9.0	0.60			211
955	6.40	850	18.0	2.5	50.0	11.0	0.15			63.0	114.0		9.0	0.60			214
956	6.62	190	8.0	1.4	20.0	13.0			0.2	20.0	121.0		9.0	0.20			132
957	6.20	180	28.0	3.0	8.0	4.0	0.18			91.0	105.0		8.0	0.50			409
958			33.1	4.2	3.3	4.3			0.3		122.0		10.0	0.48			
959																	
960	6.20	215	26.0	3.0	15.0	7.0	0.09			83.0	124.0		10.0	0.70			206
961	6.60	160	24.0	4.0	8.0	6.0	0.98			83.0	117.0	19.0	8.0	0.60			211
962																	
963	7.12	380	93.0	3.0	7.0	4.0	0.36	0.09	1.3	38.0	272.0		15.0	0.60			296
964																	
965	6.91	240	44.0	3.0	29.0	10.0	0.11	0.06		30.0	198.0		17.0	0.30			233
966	8.30	854	205.0	1.5	6.8				5.3	29.0	488.0	0.7	66.0			585	
967	8.10	1000	218.0	1.3	14.0	8.8			1.1			36.0	89.0			615	
968	7.40	260	47.0	17.0	12.0	4.0		0.05	0.2	102.0	197.0		12.0	0.20			291
969																	
970	6.52	600	87.0	2.0	25.0	16.0	0.05	0.06		49.0	168.0		122.0	0.30			385
971	8.30	574	133.0	3.2	3.6	1.0			0.8			10.0	22.0			405	
972	6.60		375.0	2.8	540.0			0.22	11.0	29.0	11.0	1760.0	196.0	2.00		2950	2925
973	7.80		1400.0	196.0	79.0	0.8		9.20	88.0	233.0	52.0	79.0	2430.0	1.50	2.20	4590	4540
974	6.60		1220.0	148.0	111.0	9.3		7.10	71.0	159.0	138.0	111.0	2160.0			4570	4064
975	8.30		8076.0	51.0	22.0	17.0		2.00	1.0		1259.0	67.0	11800.0	4.20		21500	21574

TABLE 2. - CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - WATER CHEMISTRY DATA

ID#	pH	CONDUCT	Na	K	Ca	Mg	Fe	Li	B	SiO_2	HCO_3	SO_4	Cl	F	As	TDSm	TDSc
976	8.80		555.0	4.8	170.0			0.08	2.8	44.0	2.0	4.0	1160.0	1.40	0.10	1960	1950
977	7.60		257.0	7.4	50.0	0.7		0.80	4.3	67.0	62.0	150.0	345.0			950	910
978	6.07		970.0	92.0	110.0	38.0			22.0	190.0	1480.0	250.0	880.0	1.00			3280
979																	
980	6.60		519.0	16.0	165.0	43.0		1.70	6.7	84.0	1220.0	1.0	568.0	1.20	0.10	2030	2030
981	7.00		16.0	2.2	15.0	4.7				54.0	100.0	5.0	7.0	0.20		150	154
982	8.00	258	47.0	3.0	17.0	1.0	0.05	0.06	0.4	39.0	75.0		29.0	1.90			193
983	7.80		128.0	3.9	28.0	5.6			0.3		128.0	85.0	123.0	0.60		450	440
984	8.80		292.0	3.4	15.0	2.1		0.22	6.6	45.0	512.0	67.0	91.0	12.00		820	820
985	7.74		330.0	14.0	22.0	0.1			13.0	98.0	70.0	290.0	290.0	12.00		1090	1091
986	7.90		340.0	13.0	42.0	4.4		0.84	16.0	56.0	111.0	71.0	502.0	6.80		1110	1110
987	8.70		336.0	3.6	8.0	0.6		0.28	7.4	31.0	478.0	29.0	245.0	7.40		905	905
988																	
989	8.30	405	90.0	0.8	7.0		0.05		0.3	39.0	151.0	39.0	19.0	1.80		250	272

TABLE 3

CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
1	Crohare Spring	SP	Y	37.6320	121.7620	ALA	Pleasanton	Berkstresser, 1968b	
2	Warm Springs	SP	Y	37.5030	121.9067	ALA	Fremont	Berkstresser, 1968b	
3	Grovers Hot Springs	SP	Y	38.6980	119.8450	ALP	Markleeville	Leivas and Bacon, 1982	
4	Unnamed Spring	SP	Y	38.7728	119.7130	ALP	Markleeville	Majmundar, 1984	
5	Valley Springs	SP	N	38.1952	120.8225	CAL	Valley Springs	Leivas and Bacon, 1982	
6	Red Eye Spring	SP	Y	39.3510	122.6705	COL	Red Eye Spring	Berkstresser, 1968b	
7	Elgin Mine (Spring)	SP	Y	39.0570	122.4708	COL	Wilbur Springs	Bliss, 1983	
8	Wilbur Hot Spring	SP	N	39.0387	122.4208	COL	Wilbur Springs	Goff and Janik, 1993	243-244
9	"Sunedco/Bailey Min." 1	NLT	Y	39.0333	122.4301	COL	Wilbur Springs	CA. Div. Oil and Gas, 1993	
10	Empire Silver Mine	SP	Y	39.0377	122.4255	COL	Wilbur Springs	Bliss, 1983	
11	Jones Hot Spring (W)	SW	N	39.0338	122.4270	COL	Wilbur Springs	Goff and Janik, 1993	244-247
12	Unnamed Springs	SP	Y	39.0348	122.4265	COL	Wilbur Springs	Waring, 1965	
13	Blancks Hot Springs	SP	Y	39.0312	122.4313	COL	Wilbur Springs	Waring, 1965	
14	Sulphur Spring	SP	Y	37.9147	122.0420	CCA	Mt. Diablo	Berkstresser, 1968b	
15	Unnamed Spring	SP	Y	37.9292	121.9650	CCA	Mt. Diablo	Berkstresser, 1968b	
16	Unnamed Well	WW	Y	37.9375	121.9542	CCA	Mt. Diablo	Bliss, 1983	
17	Unnamed Spring	SP	Y	37.8945	121.8737	CCA	Mt. Diablo	Pampeyan, 1963	
18	Byron Hot Springs	SW	Y	37.8472	121.6305	CCA	Byron	Leivas and others, 1981	
19	Wentworth Springs	SP	Y	39.0130	120.3380	ELD	Wentworth Springs	Waring, 1965	
20	Meyers Warm Spring	SP	Y	38.8500	120.0250	ELD	Echo Summit	Bliss, 1983	
21	Fish Creek Hot Sps.	SP	Y	37.5320	119.0245	FRE	NE. Fresno Co.	Waring, 1915	
22	Unnamed Spring	SP	Y	37.4125	119.1392	FRE	NE. Fresno Co.	Majmundar, 1984	
23	Mono Hot Springs	SP	Y	37.3267	119.0167	FRE	Mono Hot Springs	Mariner and others, 1977	
24	Blaney Meadows Hot Sps.	SP	Y	37.2337	118.8813	FRE	NE. Fresno Co.	Mariner and others, 1977	
25	Mercy Hot Springs	SP	Y	36.7033	120.8598	FRE	Mercy Hot Sps.	Levias and Bacon, 1982	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
26	Escarpado Spring	SP	Y	36.6417	120.6833	FRE	Mendota	Bliss, 1983	
27	Coalinga Mineral Sps.	SP	Y	36.1450	120.5562	FRE	Coalinga	Berkstresser, 1968b	
28	Salt Spring	SP	Y	39.4303	122.5363	GLE	Stonyford	Barnes and others, 1973	
29	Fish Springs Well	WW	Y	33.4180	116.0400	IMP	NW. Salton Sea	Hardt and French, 1976	
30	Fish Springs	SP	Y	33.4070	116.0347	IMP	NW. Salton Sea	Berkstresser, 1969	
31	Well 9S/9E-23M1 S	WW	N	33.3742	116.0133	IMP	NW. Salton Sea	CA. Dept. Water Res., 1970a	
32	Ballard's Truckhaven	WW	Y	33.2972	115.9762	IMP	Salton City	CA. Dept. Water Res., 1970a	
33	Well 10S/9E-35N1 S	WW	Y	33.2520	116.0108	IMP	Salton City	Hardt and French, 1976	
34	Well 10S/9E-36P1 S	WW	Y	33.2513	115.9872	IMP	Salton City	Majmundar, 1984	
35	Holly Corp. Hot Mnr. Well	WW	N	33.2475	116.0008	IMP	Salton City	CA. Dept. Water Res., 1970a	
36	Jacobs No.3 Well	X	N	33.1167	116.0195	IMP	Borrego Valley	Rex, 1972	
37	Jacobs No.2 Well	X	Y	33.1170	116.0097	IMP	Borrego Valley	Rex, 1972	
38	Landmark Corp. Well	X	N	33.0638	116.0308	IMP	Borrego Valley	Rex, 1972	
39	Well 14S/11E-32R1 S	WW	Y	32.9030	115.8480	IMP	Ocotillo	Hardt and French, 1976	
40	C.L. Smith Well	WW	Y	32.7167	115.9630	IMP	Ocotillo	Rex, 1972	
41	J. Greene Well	WW	Y	32.7833	115.9478	IMP	Ocotillo	Hardt and French, 1976	
42	Dollinger Well	WW	Y	32.7763	115.9405	IMP	Ocotillo	Rex, 1972	
43	Miller's Serv. Sta. Well	WW	Y	32.7292	116.0167	IMP	Ocotillo	Hardt and French, 1976	
44	H.D. Currey Well	WW	Y	32.7388	116.0047	IMP	Ocotillo	Hardt and French, 1976	
45	Davis Spring (Well)	SW	Y	32.6945	116.0250	IMP	Ocotillo	Berkstresser, 1969	
46	Texaco Station Well	WW	Y	32.7305	115.9937	IMP	Ocotillo	Hardt and French, 1976	
47	W. Simpson Well	WW	Y	32.6897	115.9247	IMP	Ocotillo	Hardt and French, 1976	
48	Unnamed Well	WW	N	33.4250	115.6917	IMP	Hot Mineral Spa	Moyle, 1974	
49	Hot Mineral Spa Well	WW	Y	33.4258	115.6855	IMP	Hot Mineral Spa	Berkstresser, 1969	
50	Bashford's Hot Mnr. (W)	WW	N	33.4237	115.6808	IMP	Hot Mineral Spa	CA. Dept. Water Res., 1970a	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
51	"Bashford" 1	CLT	Y	33.4179	115.6799	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
52	Fountain Of Youth Well	WW	Y	33.4033	115.6617	IMP	Hot Mineral Spa	CA. Dept. Water Res., 1970a	
53	Fountain of Youth,"Spa" 2	CLT	N	33.3991	115.6626	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
54	Well 9S/13E-20E1 S	WW	Y	33.3788	115.6437	IMP	Hot Mineral Spa	CA. Dept. Water Res., 1970a	
55	"Niland" 1	CLT	N	33.4179	115.6799	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
56	"Niland" 2	CLT	N	33.4160	115.6782	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
57	"Niland" 3	CLT	N	33.4176	115.6788	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
58	"Imperial" 1	CLT	N	33.4182	115.6743	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
59	"Imperial" 2	CLT	N	33.4164	115.6811	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
60	"Imperial" 3	CLT	N	33.4205	115.6786	IMP	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
61	Unnamed Mud Volcano	SP	Y	33.3450	115.5875	IMP	Salton Sea KGRA	Majmundar, 1984	
62	Unnamed Mud Volcano	SP	N	33.3450	115.5700	IMP	Salton Sea KGRA	Majmundar, 1984	
63	Unnamed Mud Volcano	SP	N	33.3233	115.5700	IMP	Salton Sea KGRA	Majmundar, 1984	
64	Unnamed Mud Volcano	SP	N	33.3233	115.5875	IMP	Salton Sea KGRA	Majmundar, 1984	
65	Unnamed Mud Volcano	SP	N	33.3117	115.6067	IMP	Salton Sea KGRA	Majmundar, 1984	
66	Unnamed Mud Volcano	SP	Y	33.3117	115.5875	IMP	Salton Sea KGRA	Majmundar, 1984	
67	Unnamed Mud Volcano	SP	N	33.2850	115.5700	IMP	Salton Sea KGRA	Majmundar, 1984	
68	Unnamed Mud Volcano	SP	Y	33.2850	115.5883	IMP	Salton Sea KGRA	Majmundar, 1984	
69	Well 11S/14E-2A1 S	WW	Y	33.2442	115.4772	IMP	Niland	Hardt and French, 1976	
70	Fish Producers, "Ray" 1	CLT	Y	33.2293	115.4646	IMP	Niland	CA. Div. Oil and Gas, 1993	
71	Unnamed Mud Pot	SP	N	33.2197	115.5803	IMP	Salton Sea KGRA	Waring, 1965	
72	J. Massion Well	WW	Y	33.2197	115.5787	IMP	Salton Sea KGRA	CA. Dept. Water Res., 1970a	
73	Earth Energy Hudson 1	X	N	33.2122	115.5695	IMP	Salton Sea KGRA	CA. Dept. Water Res., 1970a	
74	Unnamed Mud Pots	SP	N	33.2125	115.5958	IMP	Salton Sea KGRA	Waring, 1965	
75	Well 11S/13E-22H1 S	WW	N	33.1983	115.5970	IMP	Salton Sea KGRA	Majmundar, 1984	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
76	IID 3 - Imp. Therm. Pr.	X	Y	33.2053	115.5883	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
77	Earth Energy Rvr Ranch 1	X	N	33.2025	115.5780	IMP	Salton Sea KGRA	CA. Dept. Water Res., 1970a	
78	Unnamed Mud Pot	SP	N	33.2008	115.5772	IMP	Salton Sea KGRA	Berkstresser, 1969	
79	O'Neill Geothermal Inc.	X	N	33.2005	115.5872	IMP	Salton Sea KGRA	CA. Dept. Water Res., 1970a	
80	IID 1 - Imp. Therm. Pr.	X	N	33.2020	115.5917	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
81	IID 2 - Imp. Therm. Pr.	X	Y	33.1967	115.5983	IMP	Salton Sea KGRA	CA. Dept. Water Res., 1970a	
82	Elmore 1 Well	X	N	33.1830	115.6122	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
83	Magmamax 3 Magma Power	X	N	33.1687	115.6228	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
84	Magmamax 2 Magma Power	X	N	33.1687	115.6292	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
85	Magmamax 1 Magma Power	X	Y	33.1625	115.6187	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
86	Magma Power, Woolsey 1	X	N	33.1625	115.6145	IMP	Salton Sea KGRA	Hardt and French, 1976	
87	Sinclair 4	X	N	33.1487	115.6213	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
88	Sinclair 3	X	Y	33.1470	115.6075	IMP	Salton Sea KGRA	Cosner and Apps, 1978	
89	Well 13S/14E-9R1 S	WW	Y	33.0287	115.5233	IMP	Brawley	Hardt and French, 1976	
90	C. Bowles Well	WW	Y	33.1262	115.4778	IMP	Calipatria	Rex, 1972	
91	Well 12S/15E-3A1 S	WW	Y	33.1617	115.3887	IMP	Calipatria	Hardt and French, 1976	
92	Well 12S/15E-26J1 S	WW	Y	33.0962	115.3722	IMP	Imperial Valley	Majmundar, 1984	
93	Well 12S/15E-27R1 S	WW	N	33.0897	115.3888	IMP	Imperial Valley	Reed, 1975	
94	Well 13S/15E-5D1 S	WW	Y	33.0667	115.4478	IMP	Imperial Valley	Reed, 1975	
95	Well 13S/15E-3N1 S	WW	N	33.0442	115.4162	IMP	Imperial Valley	Reed, 1975	
96	Well 13S/15E-3Q1 S	WW	Y	33.0450	115.4047	IMP	Imperial Valley	Majmundar, 1984	
97	Well 13S/15E-1B1 S	WW	N	33.0612	115.3703	IMP	Imperial Valley	Hardt and French, 1976	
98	Well 13S/16E-6A1 S	WW	N	33.0603	115.3522	IMP	Imperial Valley	Hardt and French, 1976	
99	Well 12S/16E-31N1 S	WW	N	33.0750	115.3487	IMP	Imperial Valley	Reed, 1975	
100	Well 13S/16E-6J1 S	WW	N	33.0495	115.3492	IMP	Imperial Valley	Reed, 1975	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
101	Well 13S/16E-18F1 S	WW	N	33.0222	115.3583	IMP	Imperial Valley	Rex, 1972	
102	Well 13S/16E-6P1 S	WW	N	33.0438	115.3583	IMP	Imperial Valley	Reed, 1975	
103	Well 13S/16E-6N1 S	WW	Y	33.0438	115.3622	IMP	Imperial Valley	Majmundar, 1984	
104	Well 13S/15E-1Q1 S	WW	N	33.0467	115.3703	IMP	Imperial Valley	Majmundar, 1984	
105	Meyer-Dickerman Well	WW	N	33.0305	115.3703	IMP	Imperial Valley	Hardt and French, 1976	
106	Dickerman-Butters Well	WW	Y	33.0233	115.3663	IMP	Imperial Valley	Rex, 1972	
107	Well 13S/15E-16Q1 S	WW	Y	33.0158	115.4238	IMP	Imperial Valley	Reed, 1975	
108	Well 13S/15E-24E1 S	WW	N	33.0083	115.3805	IMP	Imperial Valley	Majmundar, 1984	
109	Well 13S/15E-24N1 S	WW	N	33.0013	115.3813	IMP	Imperial Valley	Reed, 1975	
110	Well 13S/15E-23Q1 S	WW	Y	33.0013	115.3887	IMP	Imperial Valley	Reed, 1975	
111	T. Shank Well	WW	Y	32.9825	115.4488	IMP	Imperial Valley	Reed, 1975	
112	N. Fifield Well	WW	Y	32.9678	115.4488	IMP	Imperial Valley	Reed, 1975	
113	Magnolia School Well	WW	N	32.9825	115.4220	IMP	Imperial Valley	Reed, 1975	
114	Well 13S/15E-33K1 S	WW	N	32.9745	115.4242	IMP	Imperial Valley	Majmundar, 1984	
115	M. Phegley Well	WW	N	32.9750	115.4150	IMP	Imperial Valley	Reed, 1975	
116	Fifield-Hoepner Well	WW	N	32.9747	115.4067	IMP	Imperial Valley	Hardt and French, 1976	
117	Orita Feed Lot Well	WW	Y	32.9750	115.4012	IMP	Imperial Valley	Rex, 1972	
118	B. Emanuelli Well	WW	N	32.9825	115.3362	IMP	Imperial Valley	Hardt and French, 1976	
119	Well 13S/16E-28R1 S	WW	Y	32.9867	115.3158	IMP	Imperial Valley	Rex, 1972	
120	Mamer-Shank Well	WW	N	32.9533	115.4320	IMP	Imperial Valley	Hardt and French, 1976	
121	J. Birger Well	WW	Y	32.9450	115.4317	IMP	Imperial Valley	Reed, 1975	
122	Moiola Feed Lot Well	WW	N	32.9533	115.3972	IMP	Imperial Valley	Reed, 1975	
123	Gisler-Bowman Well	WW	N	32.9380	115.4058	IMP	Imperial Valley	Reed, 1975	
124	Mendiburu Lot Well	WW	Y	32.9433	115.3788	IMP	Imperial Valley	Reed, 1975	
125	F. Borchard Well	WW	N	32.9580	115.3195	IMP	Imperial Valley	Reed, 1975	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
126	F. Borchard Well	WW	Y	32.9595	115.3208	IMP	Imperial Valley	Reed, 1975	
127	Well 14S/16E-11H1 S	WW	Y	32.9508	115.2837	IMP	Imperial Valley	Reed, 1975	
128	Well 14S/16E-16B1 S	WW	N	32.9387	115.3197	IMP	Imperial Valley	Hardt and French, 1976	
129	Well 14S/16E-15K1 S	WW	N	32.9313	115.3197	IMP	Imperial Valley	Hardt and French, 1976	
130	Well 14S/16E-21D1 S	WW	N	32.9245	115.3283	IMP	Imperial Valley	Majmundar, 1984	
131	Well 14S/16E-21B1 S	WW	N	32.9245	115.3197	IMP	Imperial Valley	Reed, 1975	
132	Well 14S/16E-22D1 S	WW	Y	32.9245	115.3113	IMP	Imperial Valley	Reed, 1975	
133	Coons Well	WW	N	32.9025	115.3055	IMP	Imperial Valley	Rex, 1972	
134	Well 14S/16E-19N1 S	WW	N	32.9153	115.3650	IMP	Imperial Valley	Majmundar, 1984	
135	J. Birger No. 1 Well	WW	Y	32.9170	115.3975	IMP	Imperial Valley	Reed, 1975	
136	J. Birger No. 2 Well	WW	N	32.9097	115.4045	IMP	Imperial Valley	Reed, 1975	
137	H. Foster Well	WW	N	32.9025	115.4233	IMP	Imperial Valley	Majmundar, 1984	
138	Jenson Well	WW	N	32.8953	115.4063	IMP	Imperial Valley	Reed, 1975	
139	Gaddis Well	WW	Y	32.8838	115.4042	IMP	Imperial Valley	Reed, 1975	
140	Well 15S/15E-1H1 S	WW	Y	32.8770	115.3705	IMP	Imperial Valley	Majmundar, 1984	
141	Well 15S/16E-7F1 S	WW	N	32.8630	115.3583	IMP	Imperial Valley	Hardt and French, 1976	
142	Hooke Well	WW	N	32.8578	115.3530	IMP	Imperial Valley	Reed, 1975	
143	Well 15S/15E-12H1 S	WW	Y	32.8622	115.3705	IMP	Imperial Valley	Majmundar, 1984	
144	Unnammed Well	WW	N	32.8617	115.3750	IMP	Imperial Valley	Majmundar, 1984	
145	C. Allen Well	WW	Y	32.8478	115.4095	IMP	Imperial Valley	Reed, 1975	
146	Well 15S/15E-13N1 S	WW	Y	32.8397	115.3792	IMP	Imperial Valley	Majmundar, 1984	
147	Well 15S/15E-9N1 S	WW	Y	32.8575	115.4333	IMP	Imperial Valley	Majmundar, 1984	
148	Well 15S/15E-10G1 S	WW	N	32.8622	115.4062	IMP	Imperial Valley	Reed, 1975	
149	Well 15S/15E-9E1 S	WW	N	32.8655	115.4317	IMP	Imperial Valley	Hardt and French, 1976	
150	Unnamed Well	WW	N	32.8500	115.4583	IMP	Imperial Valley	Moyle, 1974	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
151	Well 15S/14E-13E1 S	WW	Y	32.8480	115.4820	IMP	Imperial Valley	Hardt and French, 1976	
152	Magma Ener. Bonanza 1	X	Y	32.8317	115.5088	IMP	Imperial Valley	Majmundar, 1984	
153	Unnamed Well	WW	Y	32.8583	115.5667	IMP	Imperial Valley	Magmundar, 1984	
154	Magma Ener. Fed-Rite 1	X	Y	32.6867	115.6562	IMP	Heber	Hardt and French, 1976	
155	Magma Ener. Holtz 2	X	Y	32.7153	115.5578	IMP	Heber	Hardt and French, 1976	
156	Magma Ener. Holtz 1	X	Y	32.7153	115.5425	IMP	Heber	Hardt and French, 1976	
157	Chevron, Nowlin Partner	X	Y	32.7153	115.5263	IMP	Heber	Cosner and Apps, 1978	
158	Well 15S/15E-26B1 S	WW	N	32.8187	115.3892	IMP	Holtville	Reed, 1975	
159	Well 15S/15E-25D1 S	WW	N	32.8225	115.3825	IMP	Holtville	Majmundar, 1984	
160	Well 15S/15E-25F1 S	WW	N	32.8200	115.3792	IMP	Holtville	Majmundar, 1984	
161	Well 15S/15E-25B1 S	WW	Y	32.8217	115.3670	IMP	Holtville	Majmundar, 1984	
162	Well 15S/16E-18Q1 S	WW	N	32.8405	115.3525	IMP	Holtville	Hardt and French, 1976	
163	Well 15S/15E-36D1 S	WW	N	32.8095	115.3803	IMP	Holtville	Reed, 1975	
164	Well 15S/15E-35A1 S	WW	Y	32.8100	115.3847	IMP	Holtville	Reed, 1975	
165	Spanish Trails Park	WW	N	32.8155	115.3638	IMP	Holtville	Reed, 1975	
166	A. Fusi Jr. Well	WW	N	32.8113	115.3538	IMP	Holtville	Reed, 1975	
167	Well 15S/16E-29Q2 S	WW	N	32.8108	115.3372	IMP	Holtville	Majmundar, 1984	
168	R. Garewal Well	WW	N	32.8430	115.3087	IMP	Imperial Valley	Reed, 1975	
169	Well 15S/16E-22L1 S	WW	Y	32.8325	115.3062	IMP	Imperial Valley	Reed, 1975	
170	Well 15S/16E-23F1 S	WW	N	32.8337	115.2908	IMP	Imperial Valley	Reed, 1975	
171	Well 15S/16E-36E1 S	WW	N	32.8037	115.2753	IMP	East Mesa KGRA	Majmundar, 1984	
172	Magma Ener. Sharp 1	X	N	32.7962	115.2863	IMP	East Mesa KGRA	Hardt and French, 1976	
173	C. Ansiel Well	WW	Y	32.7888	115.3230	IMP	Imperial Valley	Reed, 1975	
174	Mesa 6-2 U.S.B.R.	X	N	32.7858	115.2555	IMP	East Mesa KGRA	Cosner and Apps, 1978	
175	Mesa 6-1 U.S.B.R.	X	Y	32.7862	115.2488	IMP	East Mesa KGRA	Cosner and Apps, 1978	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
176	UC 6-1S1 Well	X	N	32.7862	115.2488	IMP	East Mesa KGRA	Rex, 1972	
177	Mesa 5-1 U.S.B.R.	X	N	32.7942	115.2305	IMP	East Mesa KGRA	Cosner and Apps, 1978	
178	U.C. Riverside 127 Well	X	Y	32.7662	115.2362	IMP	East Mesa KGRA	Hardt and French, 1976	
179	Linden Gravel Well	WW	N	32.7653	115.2700	IMP	East Mesa KGRA	Rex, 1972	
180	Schneider-Guthrie Well	WW	N	32.7717	115.2762	IMP	East Mesa KGRA	Rex, 1972	
181	Watton Camp Well	WW	Y	32.7658	115.2838	IMP	East Mesa KGRA	Reed, 1975	
182	Well 16S/16E-15B1 S	WW	Y	32.7658	115.3028	IMP	Imperial Valley	Reed, 1975	
183	Lechuga Store Well	WW	Y	32.7561	115.3367	IMP	Imperial Valley	Rex, 1972	
184	Well 16S/16E-33D1 S	WW	Y	32.7225	115.3280	IMP	Imperial Valley	Rex, 1972	
185	L. Bornt Well	WW	Y	32.6925	115.3350	IMP	Imperial Valley	Reed, 1975	
186	Magma Ener. Sharp 2	X	N	32.7155	115.2978	IMP	Imperial Valley	Hardt and French, 1976	
187	Smith Brothers Well	WW	Y	32.9987	115.0738	IMP	Glamis	Rex, 1972	
188	Erma Mine Well	WW	Y	32.9983	114.9817	IMP	Glamis	Rex, 1972	
189	Gold Rock Ranch Well	WW	Y	33.8683	114.9117	IMP	Ogilby	Rex, 1972	
190	U.S.B.R. No. 115 Well	X	Y	32.8020	115.0153	IMP	Ogilby	Majmundar, 1984	
191	Keough Hot Springs	SP	Y	37.2538	118.3765	INY	Owens Valley	Leivas and others, 1981	
192	Unnamed Springs	SP	Y	37.2675	118.2722	INY	Owens Valley	Majmundar, 1984	
193	Grapevine Spring	SP	Y	37.0268	117.3833	INY	Death Valley	Leivas and others, 1981	
1194	Upper Warm Springs	SP	Y	36.8320	117.7370	INY	Saline Valley	Majmundar, 1984	
195	Palm Spring	SP	Y	36.8130	117.7653	INY	Saline Valley	Majmundar, 1984	
196	Lower Burro Warm Spring	SP	Y	36.8058	117.7717	INY	Saline Valley	Moyle, 1974	
197	Little Hunter Canyon Sps.	SP	Y	36.6978	117.8480	INY	Saline Valley	Bliss, 1983	
198	Unnamed Spring	SP	Y	36.4955	117.8928	INY	Owens Valley	Bliss, 1983	
199	Dirty Socks Hot Sps. Well	SW	Y	36.3295	117.9487	INY	Owens Valley	Moyle, 1977	
200	Devils Kitchen Fumarole	SP	Y	36.0347	117.7987	INY	Coso Hot Springs	Moyle, 1974	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
201	Coso Hot Springs Well	SP	Y	36.0462	117.7692	INY	Coso Hot Springs	Moyle, 1974	
202	Unnamed Fumarole	SP	Y	36.0337	117.8330	INY	Coso Hot Springs	Waring, 1965	
203	Unnamed Spring	SP	Y	35.9400	117.9025	INY	Coso Hot Springs	Waring, 1915	
204	Bainter Spring	SP	Y	35.8428	117.3817	INY	Trona	Leivas and others, 1981	
205	Well 24S/43E-22M1 M	WW	Y	35.8297	117.3295	INY	Trona	CA. Dept. Water Res., 1969a	
206	Well 24S/43E-9P1 M	WW	Y	35.8558	117.3405	INY	Trona	CA. Dept. Water Res., 1969a	
207	Warm Sulfur Springs	SP	Y	36.1225	117.2150	INY	Panamint Valley	Waring, 1965	
208	Warm Spring	SP	Y	35.9667	116.9312	INY	Death Valley	Bliss, 1983	
209	Tecopa Hot Springs	SP	Y	35.8718	116.2312	INY	Tecopa	Leivas and others, 1981	
210	Resting Spring	SP	Y	35.8775	116.1560	INY	Tecopa	Waring, 1965	
211	Well 21N/7E-28P1 S	WW	Y	35.8858	116.2333	INY	Tecopa	Leivas and others, 1981	
212	Unnamed Spring	SP	Y	35.8883	116.2578	INY	Tecopa	Majmundar, 1984	
213	Chappo Spring	SP	Y	35.9478	116.1883	INY	Tecopa	Waring, 1965	
214	Shoshone Spring	SP	Y	35.9800	116.2730	INY	Tecopa	Bliss, 1983	
215	Travertine Springs	SP	Y	36.4408	116.8292	INY	Death Valley	Bliss, 1983	
216	Nevares Springs	SP	Y	36.5122	116.7900	INY	Death Valley	Leivas and others, 1981	
217	Keane Wonder Hot Spring	SP	Y	36.6762	116.9258	INY	Death Valley	Bliss, 1983	
218	Meadow Hot Spring	SP	Y	35.7290	118.4112	KRN	Kernville	Leivas and others, 1981	
219	Meadow Hot Spring No.6	SP	Y	35.7290	118.4150	KRN	Kernville	Leivas and others, 1981	
220	Scovern Hot Springs	SP	Y	35.6205	118.4730	KRN	Lake Isabella	Leivas and others, 1981	
221	Miracle Hot Springs	SP	Y	35.5762	118.5330	KRN	Bodfish	Leivas and others, 1981	
222	Delonegha Hot Springs	SP	Y	35.5733	118.6128	KRN	Bodfish	Leivas and others, 1981	
223	Unnamed Spring	SP	Y	35.5353	118.6495	KRN	Bodfish	Majmundar, 1984	
224	Democrat Hot Springs	SP	Y	35.5288	118.6668	KRN	Bodfish	Leivas and others, 1981	
225	Yates Hot Springs	SP	Y	35.4330	118.4788	KRN	Bodfish	Waring, 1965	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
226	Well 26S/39E-19Q1 M	WW	Y	35.6525	117.8197	KRN	Inyokem	CA. Dept. Water Res., 1963	
227	Well 26S/39E-24P1 M	WW	Y	35.6528	117.7313	KRN	Ridgecrest	CA. Dept. Water Res., 1963	
228	Well 26S/40E-22P1 M	WW	Y	35.6533	117.6633	KRN	Ridgecrest	CA. Dept. Water Res., 1963	
229	Well 27S/40E-7G1 M	WW	Y	35.6033	117.7117	KRN	Ridgecrest	CA. Dept. Water Res., 1963	
230	Warm Spring	SP	Y	35.1475	118.7830	KRN	Arvin	Majmundar, 1984	
231	Well 28S/27E-7C2 M	WW	Y	35.5133	119.1083	KRN	Oildale	CA. Dept Water Res., 1973c	
232	Mize Spring	SP	Y	35.4833	119.9167	KRN	W. Kern Co.	Wood and Davis, 1959	
233	Carneros Spring	SP	Y	35.4388	119.8463	KRN	W. Kern Co.	Wood and Davis, 1959	
234	Unnamed Spring	SP	Y	35.3667	119.7213	KRN	W. Kern Co.	Wood and Davis, 1959	
235	Well 26S/40E-30K2 M	WW	Y	35.6433	117.7132	KRN	Ridgecrest	Leivas and others, 1981	
236	Placer Claim Springs	SP	Y	35.5777	118.5493	KRN	Bodfish	Leivas and others, 1981	
237	Crabtree Hot Springs	SP	N	39.2908	122.8217	LAK	Bartlet Springs	Berkstresser, 1968a	
238	Unnamed Spring	SP	Y	39.2000	122.7250	LAK	Bartlet Springs	Waring, 1965	
239	Newman Springs	SP	Y	39.1980	122.7143	LAK	Bartlet Springs	Waring, 1965	
240	Newman Spring	SP	N	39.1980	122.7143	LAK	Clear Lake	Goff and others, 1993	12
241	Complexion Spring	SP	N	39.1703	122.5125	LAK	Clear Lake	Goff and others, 1993	12
242	Chalk Mt. Spring	SP	N	39.0722	122.5833	LAK	Clear Lake	Goff and others, 1993	12
243	Unnamed Spring	SP	Y	39.0550	122.5933	LAK	Clear Lake	Majmundar, 1984	
244	Hog Hollow Spring	SP	Y	39.0233	122.5917	LAK	Clear Lake	Goff and others, 1993	12
245	Grizzly Spring	SP	N	39.0017	122.4983	LAK	Clear Lake	Goff and others, 1993	12
246	Sulphur Bank Wells	X	Y	39.0038	122.6613	LAK	Clear Lake	Berkstresser, 1968a	
247	Sulphur Bank Hot Springs	SP	Y	39.0033	122.6633	LAK	Clear Lake	Bliss, 1983	
248	Unnamed Springs	SP	Y	38.9858	122.7358	LAK	Clear Lake	Majmundar, 1984	
249	Kettenhofen 1 Well	X	Y	38.9492	122.7517	LAK	Clear Lake	CA. Div. Oil and Gas, 1979	
250	Big Soda Spring	SP	Y	39.0080	122.7872	LAK	Clear Lake	Goff and others, 1977	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
251	Lake Co.,"Ag Park" 1	CLT	Y	38.9357	122.7588	LAK	Kelseyville	CA. Div. Oil and Gas, 1993	
252	Lake Co.,"Ag Park" 2	CLT	N	38.9339	122.7603	LAK	Kelseyville	CA. Div. Oil and Gas, 1993	
253	Lake Co.,"Ag Park" 3	CLT	N	38.9320	122.7597	LAK	Kelseyville	CA. Div. Oil and Gas, 1993	
254	Unnamed Well	WW	Y	38.9783	122.8333	LAK	Clear Lake	Waring, 1915	
255	Highland Springs	SP	Y	38.9377	122.9078	LAK	Clear Lake	Waring, 1915	
256	England Springs	SP	Y	38.8967	122.8817	LAK	Clear Lake	Waring, 1915	
257	Agricultural Park #3 Well	CLT	Y	38.9250	122.7567	LAK	Clear Lake	Goff and others, 1993	12
258	Carlsbad Spring	SP	Y	38.9180	122.7978	LAK	Clear Lake	Goff and others, 1977	
259	Sullivan 1 Well	X	Y	38.8853	122.7917	LAK	Clear Lake	CA. Div. Oil and Gas, 1979	
260	Gordon Hot Spring	SP	N	38.8350	122.7308	LAK	Clear Lake	Goff and others, 1993	12
261	Seigler Hot Springs	SP	Y	38.8760	122.6880	LAK	Clear Lake	Barnes and others, 19973	
262	Howard Hot Springs	SP	N	38.8583	122.6733	LAK	Clear Lake	Goff and others, 1993	12
263	Ettawa Springs	SP	Y	38.8500	122.6900	LAK	Clear Lake	Goff and others, 1993	12
264	Pine Cone Spring	SP	N	38.8500	122.6900	LAK	Clear Lake	Goff and Janik, 1993	230-231
265	Sulfur Creek Spring	SP	Y	38.8617	122.7567	LAK	Clear Lake	Goff and others, 1993	12
266	Spiers Spring	SP	N	38.8375	122.6517	LAK	Clear Lake	Goff and others, 1993	12
267	Anderson Springs	SP	N	38.7750	122.7333	LAK	The Geysers	Goff and others, 1993	12
268	Harbin Springs	SP	Y	38.7887	122.6563	LAK	Middletown	Goff and others, 1977	
269	Castle Rock Springs	SP	Y	38.7708	122.7162	LAK	Middletown	Waring, 1915	
270	Baker Soda Spring	SP	N	38.8920	122.5320	LAK	Clear Lake	Goff and others, 1993	12
271	Bare Ranch Spring	SP	Y	41.1667	120.0333	LAS	Eagleville	CA. Dept. Water Res., 1961b	
272	Warm Spring	SP	Y	41.1625	120.4038	LAS	Likely	Majmundar, 1984	
273	Kellog Hot Spring	SP	N	41.1275	121.0250	LAS	Bieber	Reed, 1975	
274	Bassett Hot Springs	SP	N	41.1450	121.1108	LAS	Bieber	Leivas and others, 1981	
275	Unnamed Springs	SP	Y	41.0133	121.2725	LAS	Pittville	Majmundar, 1984	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
276	Roosevelt Pool Well	X	Y	40.4092	120.6622	LAS	Susanville	Reed, 1975	
277	Church of L.D.S. Well	WW	Y	40.4063	120.6600	LAS	Susanville	Reed, 1975	
278	Wirth Well No. 1	WW	Y	40.4072	120.6540	LAS	Susanville	U.S. Bureau Rec., 1976	
279	N. State Growers Well	WW	Y	40.4047	120.6563	LAS	Susanville	U.S. Bureau Rec., 1976	
280	N. No. 1 Well	WW	Y	40.4087	120.6587	LAS	Susanville	U.S. Bureau Rec., 1976	
281	Lassen Lumber & Box 2 (W)	X	Y	40.4013	120.6475	LAS	Susanville	U.S. Bureau Rec., 1976	
282	Eagle Lake Lumber Well	WW	Y	40.4033	120.6317	LAS	Susanville	U.S. Bureau Rec., 1976	
283	Unnamed Well	WW	Y	40.4133	120.6583	LAS	Susanville	Majmundar, 1984	
284	"Davis" 2	NLT	N	40.4110	120.6606	LAS	Susanville	CA. Div. Oil and Gas, 1993	
285	"Susan" 1	CLT	N	40.4125	120.6651	LAS	Susanville	CA. Div. Oil and Gas, 1993	
286	Tsuji Nursery "TNI" 2 (W)	CLT	N	40.4070	120.6579	LAS	Susanville	CA. Div. Oil and Gas, 1993	
287	"Johnston" 1	CLT	Y	40.4030	120.4863	LAS	Litchfield	CA. Div. Oil and Gas, 1993	
288	"Johnston" 2	CLT	Y	40.4027	120.4896	LAS	Litchfield	CA. Div. Oil and Gas, 1993	
289	Well 30N/13E-31R1 M	WW	Y	40.4083	120.5500	LAS	Litchfield	U.S. Bureau Rec., 1976	
290	Sellicks Springs	SP	Y	40.5667	120.3250	LAS	E. Lassen Co.	Waring, 1915	
291	Tipton Springs	SP	Y	40.5800	120.2650	LAS	E. Lassen Co.	Waring, 1915	
292	Well 29N/15E-16G1 M	WW	Y	40.3733	120.2933	LAS	Wendel-Amedee KGRA	U.S. Bureau Rec., 1976	
293	Wendel Hot Springs	SP	Y	40.3558	120.2555	LAS	Wendel-Amedee KGRA	Reed, 1975	
294	Magma Power Co. Wendel 1	X	Y	40.3583	120.2542	LAS	Wendel-Amedee KGRA	McNitt, 1963	
295	Southern Pacific RR Well	WW	Y	40.3420	120.2208	LAS	Wendel-Amedee KGRA	Reed, 1975	
296	Magma Power Amedee 1,2	X	Y	40.3000	120.1947	LAS	Wendel-Amedee KGRA	Bliss, 1983	
297	Amedee Hot Springs	SP	Y	40.3042	120.1958	LAS	Wendel-Amedee KGRA	Reed, 1975	
298	Well 28N/17E-20J1 M	WW	Y	40.2650	120.0750	LAS	Wendel	U.S. Bureau Rec., 1976	
299	High Rock Spring	SP	Y	40.2467	120.0068	LAS	Wendel	Waring, 1915	
300	Unnamed Spring	SP	Y	39.9800	120.0638	LAS	Doyle	Hannah, 1975	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
301	Zamboni Hot Springs	SP	Y	39.9195	120.0233	LAS	Doyle	Leivas and Bacon, 1982	
302	Warm Springs	SP	Y	34.6072	118.5622	LAX	Castaic lake	Berkstresser, 1968b	
303	Well 6N/12W-13N1 S	WW	Y	34.6025	118.1083	LAX	Lancaster	CA. Dept. Water Res., 1976	
304	Well 4N/16W-1Q1 S	WW	Y	34.4542	118.5125	LAX	Santa Clarita	CA. Dept. Water Res., 1972c	
305	Seminole Hot Sps. Well	SW	Y	34.1075	118.7908	LAX	Seminole Hot Sps.	Berkstresser, 1968b	
306	Well 1N/16W-14K1 S	WW	Y	34.1667	118.5250	LAX	Encino	CA. Dept. Water Res., 1966a	
307	El Encino Springs	SP	Y	34.1592	118.4988	LAX	Encino	Berkstresser, 1968b	
308	Bimini Hot Sps. Well	SW	Y	34.0692	118.2907	LAX	Los Angeles	Moyle, 1974	
309	Well 2S/14W-14C2 S	WW	Y	34.0183	118.3167	LAX	Los Angeles	CA. Dept. Water Res., 1966a	
310	Well 1S/9W-1F1 S	WW	Y	34.1150	117.7800	LAX	La Verne	CA. Dept. Water Res., 1974b	
311	Well 2S/11W-8N1 S	WW	Y	34.0050	118.0617	LAX	Whittier	CA. Dept. Water Res., 1966a	
312	Alvarado Hot Sps. Well	SW	Y	33.9758	117.8863	LAX	Hacienda Heights	Berkstresser, 1968b	
313	Well 3S/11W-14H4 S	WW	Y	33.9125	117.9958	LAX	East Whittier	CA. Dept. Water Res., 1977	
314	Well 4S/13W-27N1 S	WW	Y	33.7917	118.2350	LAX	Long Beach	CA. Dept. Water Res., 1966a	
315	Well 5S/13W-6D1 S	WW	Y	33.7750	118.2833	LAX	Long Beach	CA. Dept. Water Res., 1967c	
316	Unnamed Spring	SP	Y	33.8017	118.4000	LAX	Palos Verdes	Majmundar, 1984	
317	Whites Point Hot Sps.	SP	Y	33.7150	118.3183	LAX	San Pedro	Moyle, 1974	
318	Reds Meadow Hot Sps.	SP	Y	37.6183	119.0733	MAD	Long Valley	Mariner and others, 1977	
319	Rocky Point Springs	SP	Y	37.8858	122.6287	MAR	Stinson Beach	Berkstresser, 1968a	
320	Jackson Valley Mud Sps.	SP	Y	39.6578	123.5870	MEN	Laytonville	Berkstresser, 1968a	
321	Pinches Spring	SP	Y	39.6962	123.4825	MEN	Laytonville	Berkstresser, 1968a	
322	Muir Springs	SP	Y	39.4288	123.3075	MEN	Willits	Berkstresser, 1968a	
323	Orrs Hot Springs	SP	N	39.2298	123.3649	MEN	Ukiah	Berkstresser, 1968a	
324	Orr Hot Sps."Trilby Sp."	SP	N	39.2298	123.3649	MEN	Ukiah	Div. Mines & Geology, 1993	
325	Orr Hot Sps."Pool Sp."	SP	N	39.2298	123.3649	MEN	Ukiah	Div. Mines & Geology, 1993	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
326	Orr Hot Sps. Well	SW	Y	39.2298	123.3649	MEN	Ukiah	Div. Mines & Geology, 1993	
327	Vichy Springs	SP	Y	39.1655	123.1562	MEN	Ukiah	Vichy Springs, 1990	
328	Cal-Dri Ice Co. Well	WW	Y	39.0050	123.1083	MEN	Hopland	Cardwell, 1965	
329	Point Arena Hot Sps.	SP	Y	38.8772	123.5092	MEN	Pt. Arena	Berkstresser, 1968a	
330	San Luis Forebay Sp.	SP	Y	37.0833	121.0417	MER	San Luis Res.	Bliss, 1983	
331	Iridat Spring	SP	Y	36.7737	120.8990	MER	Mercy Hot Sps.	Berkstresser, 1968b	
332	Unnamed Spring	SP	Y	36.7670	120.8995	MER	Mercy Hot Sps.	Berkstresser, 1968b	
333	Warm Spring	SP	Y	41.9587	120.9428	MOD	N. Modoc Co.	Majmundar, 1984	
334	Pothole Spring	SP	Y	41.8252	120.9153	MOD	N. Modoc Co.	Waring, 1965	
335	Weidner Well	WW	Y	41.9478	120.3175	MOD	Goose Lake Val.	Leivas and others, 1981	
336	Fort Bidwell Hot Sp. Well	X	N	41.8617	120.1592	MOD	Fort Bidewll	Reed, 1975	
337	Fort Bidwell Geo. Well	NLT	Y	41.8617	120.1578	MOD	Fort Bidwell	Leinas and Bacon, 1982	
338	Well 46N/16E-31R1 M	WW	Y	41.8078	120.1708	MOD	Fort Bidwell	CA. Dept. Water Res., 1961b	
339	Well 45N/16E-17M1 M	WW	Y	41.7667	120.1812	MOD	Fort Bidwell	CA. Dept. Water Res., 1961b	
340	Well 44N/16E-6E2 M	WW	Y	41.7142	120.1975	MOD	Lake City	CA. Dept. Water Res., 1961b	
341	Magma Energy Wells	X	Y	41.6718	120.2167	MOD	Lake City	Duffield and Fournier, 1974	
342	Lake City Mud Volcano Sp.	SP	Y	41.6680	120.2092	MOD	Lake City	Reed, 1975	
343	Hutchen's Well	WW	Y	41.5833	120.1700	MOD	Cederville	Hannah, 1975	
344	Unnamed Well	WW	Y	41.5817	120.1792	MOD	Cederville	Hannah, 1975	
345	Robison Well	WW	Y	41.5658	120.1917	MOD	Cederville	Hannah, 1975	
346	Leonards Hot Sps. (West)	SP	Y	41.5987	120.0913	MOD	Cederville	Duffield and Fournier, 1974	
347	Seyferth Hot Springs	SP	Y	41.6158	120.1033	MOD	Cederville	Reed, 1975	
348	Leonards Hot Sps. (East)	SP	Y	41.6015	120.0850	MOD	Cederville	Reed, 1975	
349	Surprise Val. Mnr. Well	WW	Y	41.5333	120.0773	MOD	Cederville	Leivas and Bacon, 1982	
350	Unnamed Spring	SP	Y	41.5297	120.0870	MOD	Cederville	Duffield and Fournier, 1974	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
351	Benmac Hot Springs	SP	Y	41.5305	120.0822	MOD	Cederville	Duffield and Fournier, 1974	
352	Menlo Baths Hot Springs	SP	Y	41.2658	120.0820	MOD	Eagleville	Leivas and Bacon, 1982	
353	Unnamed Spring	SP	Y	41.2083	120.0542	MOD	Eagleville	CA. Dept. Water Res., 1961b	
354	Unnamed Spring	SP	Y	41.2217	120.0667	MOD	Eagleville	Duffield and Fournier, 1974	
355	Unnamed Spring	SP	Y	41.1917	120.3833	MOD	Likely	Reed, 1975	
356	Unnamed Spring	SP	Y	41.1967	120.4708	MOD	Likely	Majmundar, 1984	
357	Unnamed Spring	SP	Y	41.2532	120.5208	MOD	Likely	Majmundar, 1984	
358	New Williams R. Well	WW	Y	41.2683	120.5250	MOD	Likely	Hannah, 1975	
359	Van Loan Well	WW	Y	41.2617	120.5303	MOD	Likely	Leivas and others, 1981	
360	Unnamed Spring	SP	Y	41.3600	120.7233	MOD	Alturas	Waring, 1915	
361	Unnamed Spring	SP	Y	41.4667	120.5250	MOD	Alturas	Waring, 1915	
362	CA. Pines Lodge	NLT	Y	41.4090	120.6856	MOD	Alturas	CA. Div. Oil and Gas, 1993	
363	Modoc Sch. Dist.,"AL" 1	CLT	Y	41.4917	120.5405	MOD	Alturas	CA. Div. Oil and Gas, 1993	
364	Alturas Elem. Sch.,"AL" 2	CLT	Y	41.4901	120.5553	MOD	Alturas	CA. Div. Oil and Gas, 1993	
365	Unnamed Spring	SP	Y	41.5417	120.5667	MOD	Alturas	Waring, 1915	
366	Essex Springs	SP	Y	41.4928	120.6992	MOD	Alturas	Hannah, 1975	
367	SX Ranch Spring	SP	Y	41.4850	120.7635	MOD	Canby	Leivas and Bacon, 1982	
368	SX Ranch Well	WW	Y	41.5117	120.7775	MOD	Canby	Leivas and Bacon, 1982	
369	Kelly Hot Spring	SP	Y	41.4540	120.8347	MOD	Canby	Reed, 1975	
370	Kelly Hot Sp. Ranch Well	WW	Y	41.4517	120.8350	MOD	Canby	Majmundar, 1984	
371	"Canby School" 1	TG	Y	41.4566	120.8531	MOD	Canby	CA. Div. Oil and Gas, 1993	
372	Little Hot Spring	SP	Y	41.2305	121.4033	MOD	Day	Leivas and others, 1981	
373	Weidner Well	WW	Y	41.9478	120.3175	MOD	Goose Lake Val.	Leivas and others, 1981	
374	Unnamed Spring	SP	Y	38.6267	119.5042	MON	Antelope Valley	CA. Dept. Water Res., 1964	
375	Sierra E. Mobile Pk. Well	WW	Y	38.5250	119.4750	MON	Antelope Valley	Leivas and others, 1981	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
376	Unnamed Well	WW	Y	38.5333	119.4667	MON	Antelope Valley	Majmundar, 1984	
377	Fales Hot Springs	SP	Y	38.3505	119.4003	MON	Fales Hot Sps.	Leivas and others, 1981	
378	Magma Power Co. Well	X	Y	38.3500	119.4000	MON	Fales Hot Sps.	Majmundar, 1984	
379	Buckeye Hot Springs	SP	Y	38.2392	119.3250	MON	Bridgeport	Mariner and others, 1977	
380	Travertine Hot Spring	SP	Y	38.2463	119.2042	MON	Bridgeport	Mariner and others, 1977	
381	The Hot Springs	SP	Y	38.2242	119.2145	MON	Bridgeport	Mariner and others, 1977	
382	Magma Power Co. Well	X	Y	38.2250	119.2125	MON	Bridgeport	McNitt, 1963	
383	Warm Spring	SP	Y	38.2022	119.1207	MON	Bridgeport	Majmundar, 1984	
384	Dechambeau Well	SW	Y	38.0500	119.0817	MON	Mono Lake	Leivas and Bacon, 1982	
385	Unnamed Spring	SP	Y	38.0542	119.0633	MON	Mono Lake	Lee, 1969	
386	State PRC 4572.1 Well	X	Y	38.0245	119.0832	MON	Mono Lake	Cosner and Apps, 1978	
387	Warm Springs	SP	Y	38.0330	118.9043	MON	Mono Lake	Lee, 1969	
388	Unnamed Springs	SP	Y	37.9958	119.0233	MON	Mono Lake	Mariner and others, 1977	
389	State PRC 4397.1 Well	X	Y	37.9393	119.0302	MON	Mono Lake	Cosner and Apps, 1978	
390	Unnamed Spring	SP	Y	37.9400	119.0192	MON	Mono Lake	Lee, 1969	
391	Unnamed Spring (Tunnel)	SP	Y	37.8358	119.0158	MON	Mono Lake	Gresswell, 1940	
392	Unnamed Fumaroles	SP	Y	37.6192	119.0278	MON	Mammoth Lakes	Majmundar, 1984	
393	Casa Diablo Hot Springs	SP	Y	37.6458	118.9150	MON	Mammoth Lakes	Sorey and Lewis, 1976	
394	Magma Power Co. Wells	X	Y	37.6458	118.9167	MON	Mammoth Lakes	CA. Dept. Water Res., 1967a	
395	Mammoth Lakes,"MLGRAP" 1	CLT	N	37.6511	118.9796	MON	Mammoth Lakes	CA. Div. Oil and Gas, 1993	
396	Mammoth Lakes,"MLGRAP" 2	CLT	N	37.6406	118.9642	MON	Mammoth Lakes	CA. Div. Oil and Gas, 1993	
397	Mammoth Lakes,"Ohwell" 1	CLT	Y	37.6359	118.9888	MON	Mammoth Lakes	CA. Div. Oil and Gas, 1993	
398	Hot Bubbling Pool	SP	Y	37.6470	118.8600	MON	Mammoth Lakes	Leivas and Bacon, 1982	
399	Little Hot Creek Sps.	SP	Y	37.6900	118.8400	MON	Long Valley	CA. Dept. Water Res., 1967a	
400	Hot Creek Springs	SP	Y	37.6645	118.8275	MON	Long Valley	CA. Dept. Water Res., 1967a	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
401	Unnamed Spring	SP	Y	37.7080	118.8133	MON	Long Valley	Rinehart and others, 1964	
402	Big Alkali Lake Sp.	SP	Y	37.6700	118.7815	MON	Long Valley	Leivas and Bacon, 1982	
403	Whitmore Hot Springs	SP	Y	37.6308	118.8117	MON	Long Valley	CA. Dept. Water Res., 1973a	
404	Unnamed Spring	SP	Y	37.6433	118.7575	MON	Long Valley	Mariner and Willey, 1976	
405	Unnamed Spring	SP	Y	37.6367	118.7242	MON	Long Valley	CA. Dept. Water Res., 1967a	
406	Unnamed Springs	SP	Y	37.7192	118.7375	MON	Long Valley	Majmundar, 1984	
407	Benton Hot Springs	SP	Y	37.8008	118.5300	MON	Benton Hot Sps.	Mariner and others, 1977	
408	Benton Indian Well	WW	Y	37.7963	118.5233	MON	Benton Hot Sps.	Leivas and Bacon, 1982	
409	Bertrand Ranch Springs	SP	Y	35.8917	118.4917	MON	Benton	Waring, 1915	
410	Unnamed Spring	SP	Y	36.6183	121.8445	MNT	Monterey	Majmundar, 1984	
411	Unnamed Spring	SP	Y	36.3312	121.8428	MNT	Big Sur	Waring, 1965	
412	Unnamed Spring	SP	Y	36.2500	121.6833	MNT	Big Sur	Berkstresser, 1968b	
413	Slates Hot Springs	SP	Y	36.1230	121.6353	MNT	Big Sur	Berkstresser, 1968b	
414	Dolans Hot Springs	SP	Y	36.0837	121.5863	MNT	Big Sur	Berkstresser, 1968b	
415	Tassajara Hot Springs	SP	Y	36.2337	121.5492	MNT	Big Sur	Leivas and Bacon, 1982	
416	Paraiso Springs	SP	Y	36.3313	121.3675	MNT	Soledad	Leivas and Bacon, 1982	
417	Sulfur Spring	SP	Y	36.3313	121.3662	MNT	Soledad	Berkstresser, 1968b	
418	Table Mountain (Spring)	SP	Y	35.9083	120.3667	MNT	Parkfield	Bliss, 1983	
419	Unnamed Spring	SP	Y	38.8333	122.3567	NAP	Knoxville	Berkstresser, 1968a	
420	Aetna Springs	SP	Y	38.6522	122.4833	NAP	Aetna Springs	Berkstresser, 1968a	
421	Calistoga Pwr. Co. Well	X	Y	38.5955	122.6003	NAP	Calistoga	Majmundar, 1984	
422	Calistoga Hot Springs	SW	Y	38.5822	122.5728	NAP	Calistoga	Waring, 1915	
423	Well 8N/6W-4F1 M	WW	Y	38.5738	122.5322	NAP	Calistoga	Majmundar, 1984	
424	Phillips Soda Springs	SP	Y	38.5217	122.2608	NAP	Lake Berryessa	Waring, 1965	
425	Napa Rock Soda Sps.	SP	Y	38.5187	122.2597	NAP	Lake Berryessa	Berkstresser, 1968a	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
426	Well 8N/6W-25H2 M	WW	Y	38.5175	122.4700	NAP	Napa Valley	Majmundar, 1984	
427	White Sulfur Springs	SP	Y	38.4905	122.4967	NAP	Napa Valley	Berkstresser, 1968a	
428	Well 7N/5W-3M1 M	WW	Y	38.4850	122.4067	NAP	Napa Valley	Majmundar, 1984	
429	Well 7N/5W-15A1 M	WW	Y	38.4633	122.3942	NAP	Napa Valley	Majmundar, 1984	
430	Well 7N/5W-14G1 M	WW	Y	38.4592	122.3808	NAP	Napa Valley	Majmundar, 1984	
431	Well 7N/5W-26D1 M	WW	Y	38.4342	122.3908	NAP	Napa Valley	Majmundar, 1984	
432	Well 7N/5W-26E1 M	WW	Y	38.4308	122.3892	NAP	Napa Valley	Majmundar, 1984	
433	Napa Vichy Springs	SP	Y	38.3388	122.2592	NAP	Napa Valley	Berkstresser, 1968a	
434	Well 6N/4W-23J1 M	WW	Y	38.3500	122.2650	NAP	Napa Valley	Majmundar, 1984	
435	Unnamed Spring	SP	Y	38.3208	122.2708	NAP	Napa Valley	Majmundar, 1984	
436	Well 6N/4W-24M1 M	WW	Y	38.3508	122.2600	NAP	Napa Valley	Majmundar, 1984	
437	Wine Val. Inn,"Wilson" 1	CLT	N	38.5778	122.5774	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
438	Calis. Sch. Dist.,"CHS" 1	CLT	N	38.5835	122.5792	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
439	"Roman Spa" 1	CLT	N	38.5779	122.5775	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
440	City Calistoga,"Calis" 1	INJ	N	38.5782	122.5794	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
441	"Village Inn" 1	CLT	N	38.5779	122.5778	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
442	Calis. Sch. Dist.,"CHS" 2	CLT	N	38.5827	122.5787	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
443	Napa V.S.M.W.Co.,"Fox" 3	CLT	N	38.5818	122.5777	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
444	"CDHS" 1	CLT	N	38.5776	122.5731	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
445	Calistoga M.W.Co.,"CMW" 3	CLT	N	38.5855	122.5743	NAP	Calistoga	CA. Div. Oil and Gas, 1993	
446	Golden Haven Spa	WW	N	38.5858	122.5797	NAP	Calistoga	Youngs and others, 1980	
447	Golden Haven Spa	WW	N	38.5855	122.5792	NAP	Calistoga	Youngs and others, 1980	
448	Unnamed Well	WW	N	38.6005	122.6073	NAP	Calistoga	Youngs and others, 1980	
449	Unnamed Well	WW	N	38.5970	122.6007	NAP	Calistoga	Youngs and others, 1980	
450	Unnamed Well	WW	N	38.5962	122.6022	NAP	Calistoga	Youngs and others, 1980	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
451	"Godward" 1	EST	N	38.5938	122.6015	NAP	Calistoga	Youngs and others, 1980	
452	Unnamed Well	WW	N	38.5945	122.6022	NAP	Calistoga	Youngs and others, 1980	
453	Unnamed Well	WW	N	38.5913	122.6053	NAP	Calistoga	Youngs and others, 1980	
454	Unnamed Well	WW	N	38.5893	122.6032	NAP	Calistoga	Youngs and others, 1980	
455	Unnamed Well	WW	N	38.6012	122.5978	NAP	Calistoga	Youngs and others, 1980	
456	Unnamed Well	WW	N	38.5965	122.5992	NAP	Calistoga	Youngs and others, 1980	
457	Unnamed Well	WW	N	38.5962	122.5990	NAP	Calistoga	Youngs and others, 1980	
458	Unnamed Well	WW	N	38.5960	122.5990	NAP	Calistoga	Youngs and others, 1980	
459	Unnamed Well	WW	N	38.5948	122.5967	NAP	Calistoga	Youngs and others, 1980	
460	Unnamed Well	WW	N	38.5922	122.5948	NAP	Calistoga	Youngs and others, 1980	
461	Unnamed Well	WW	N	38.5937	122.5945	NAP	Calistoga	Youngs and others, 1980	
462	Unnamed Well	WW	N	38.5917	122.5942	NAP	Calistoga	Youngs and others, 1980	
463	Unnamed Well	WW	N	38.5930	122.5945	NAP	Calistoga	Youngs and others, 1980	
464	Well 9N/7W-26 M	WW	N	38.5937	122.5950	NAP	Calistoga	Youngs and others, 1980	
465	Unnamed Well	WW	N	38.5980	122.5833	NAP	Calistoga	Youngs and others, 1980	
466	"Calvert" 1	WW	N	38.5965	122.5895	NAP	Calistoga	Youngs and others, 1980	
467	Unnamed Well	WW	N	38.5920	122.5935	NAP	Calistoga	Youngs and others, 1980	
468	Unnamed Well	WW	N	38.5885	122.5958	NAP	Calistoga	Youngs and others, 1980	
469	Unnamed Well	WW	N	38.5895	122.5972	NAP	Calistoga	Youngs and others, 1980	
470	Napa Co. Fairgrounds	WW	N	38.5843	122.5907	NAP	Calistoga	Youngs and others, 1980	
471	Unnamed Well	WW	N	38.5875	122.5842	NAP	Calistoga	Youngs and others, 1980	
472	"Turner" 1	WW	N	38.5893	122.5825	NAP	Calistoga	Youngs and others, 1980	
473	"Turner" 2	WW	N	38.5892	122.5827	NAP	Calistoga	Youngs and others, 1980	
474	Unnamed Well	WW	N	38.5900	122.5847	NAP	Calistoga	Youngs and others, 1980	
475	Well 9N/7W-36 M	WW	N	38.5907	122.5857	NAP	Calistoga	Youngs and others, 1980	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
476	Unnamed Well	WW	N	38.5908	122.5853	NAP	Calistoga	Youngs and others, 1980	
477	Unnamed Well	WW	N	38.5928	122.5867	NAP	Calistoga	Youngs and others, 1980	
478	Unnamed Well	WW	N	38.5927	122.5828	NAP	Calistoga	Youngs and others, 1980	
479	Unnamed Well	WW	N	38.5758	122.5508	NAP	Calistoga	Youngs and others, 1980	
480	Unnamed Well	WW	N	38.6008	122.5822	NAP	Calistoga	Youngs and others, 1980	
481	Unnamed Well	WW	N	38.5975	122.5813	NAP	Calistoga	Youngs and others, 1980	
482	Unnamed Well	WW	N	38.5825	122.5615	NAP	Calistoga	Youngs and others, 1980	
483	Unnamed Well	WW	N	38.5747	122.5592	NAP	Calistoga	Youngs and others, 1980	
484	Unnamed Well	WW	N	38.5860	122.5620	NAP	Calistoga	Youngs and others, 1980	
485	Unnamed Well	WW	N	38.5847	122.5630	NAP	Calistoga	Youngs and others, 1980	
486	Unnamed Well	WW	N	38.5913	122.5772	NAP	Calistoga	Youngs and others, 1980	
487	Unnamed Well	WW	N	38.5932	122.5957	NAP	Calistoga	Youngs and others, 1980	
488	Nance's Hot Sps. Well	WW	N	38.5815	122.5763	NAP	Calistoga	Youngs and others, 1980	
489	Calistoga Spa Cold Well 2	WW	N	38.5783	122.5760	NAP	Calistoga	Youngs and others, 1980	
490	Calistoga Spa Hot Well 2	WW	N	38.5787	122.5752	NAP	Calistoga	Youngs and others, 1980	
491	Calistoga Spa Main Well	WW	N	38.5783	122.5753	NAP	Calistoga	Youngs and others, 1980	
492	Pacheteau Well	WW	Y	38.5822	122.5738	NAP	Calistoga	Youngs and others, 1980	
493	Pacheteau's "Well 1"	WW	N	38.5823	122.5740	NAP	Calistoga	Youngs and others, 1980	
494	Pacheteau's "Well 2"	WW	N	38.5825	122.5738	NAP	Calistoga	Youngs and others, 1980	
495	Pacheteau's "Well 3"	WW	N	38.5823	122.5737	NAP	Calistoga	Youngs and others, 1980	
496	Dr. Wilkinson's Hot Sps.	WW	N	38.5803	122.5768	NAP	Calistoga	Youngs and others, 1980	
497	Unnamed Well	WW	N	38.5783	122.5742	NAP	Calistoga	Youngs and others, 1980	
498	Unnamed Well	WW	N	38.5782	122.5753	NAP	Calistoga	Youngs and others, 1980	
499	Unnamed Well	WW	N	38.5773	122.5728	NAP	Calistoga	Youngs and others, 1980	
500	Unnamed Well	WW	N	38.5772	122.5735	NAP	Calistoga	Youngs and others, 1980	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
501	Roman Spa "Well 1"	WW	N	38.5792	122.5787	NAP	Calistoga	Youngs and others, 1980	
502	Roman Spa "Well 2"	WW	N	38.5792	122.5788	NAP	Calistoga	Youngs and others, 1980	
503	Unnamed Well	WW	N	38.5823	122.5758	NAP	Calistoga	Youngs and others, 1980	
504	Unnamed Well	WW	N	38.5810	122.5785	NAP	Calistoga	Youngs and others, 1980	
505	Hideway Hot Sps. Well 1	WW	N	38.5825	122.5785	NAP	Calistoga	Youngs and others, 1980	
506	Hideway Hot Sps. Well 2	WW	N	38.5822	122.5793	NAP	Calistoga	Youngs and others, 1980	
507	Napa Val. Sps. Bottle Co.	WW	N	38.5833	122.5757	NAP	Calistoga	Youngs and others, 1980	
508	Unnamed Well	WW	N	38.5772	122.5742	NAP	Calistoga	Youngs and others, 1980	
509	Unnamed Well	WW	N	38.5775	122.5738	NAP	Calistoga	Youngs and others, 1980	
510	Mt. View Hotel	WW	N	38.5792	122.5780	NAP	Calistoga	Youngs and others, 1980	
511	Unnamed Well	WW	N	38.5750	122.5778	NAP	Calistoga	Youngs and others, 1980	
512	Unnamed Well	WW	N	38.5827	122.5872	NAP	Calistoga	Youngs and others, 1980	
513	Unnamed Well	WW	N	38.5850	122.5558	NAP	Calistoga	Youngs and others, 1980	
514	Unnamed Well	WW	N	38.5747	122.5513	NAP	Calistoga	Youngs and others, 1980	
515	Unnamed Well	WW	N	38.5842	122.5548	NAP	Calistoga	Youngs and others, 1980	
516	Unnamed Well	WW	N	38.5840	122.5552	NAP	Calistoga	Youngs and others, 1980	
517	Unnamed Well	WW	N	38.5665	122.5647	NAP	Calistoga	Youngs and others, 1980	
518	Unnamed Well	WW	N	38.5725	122.5692	NAP	Calistoga	Youngs and others, 1980	
519	Unnamed Well	WW	N	38.5853	122.6010	NAP	Calistoga	Youngs and others, 1980	
520	Unnamed Well	WW	N	38.5815	122.5962	NAP	Calistoga	Youngs and others, 1980	
521	Unnamed Well	WW	N	38.5852	122.5998	NAP	Calistoga	Youngs and others, 1980	
522	Unnamed Well	WW	N	38.5843	122.5545	NAP	Calistoga	Youngs and others, 1980	
523	Unnamed Well	WW	N	38.5840	122.5543	NAP	Calistoga	Youngs and others, 1980	
524	Unnamed Well	WW	N	38.5858	122.6040	NAP	Calistoga	Youngs and others, 1980	
525	Unnamed Well	WW	N	38.5833	122.6067	NAP	Calistoga	Youngs and others, 1980	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
526	Unnamed Well	WW	N	38.5567	122.5237	NAP	Calistoga	Youngs and others, 1980	
527	Unnamed Well	WW	N	38.5563	122.5222	NAP	Calistoga	Youngs and others, 1980	
528	Unnamed Well	WW	N	38.5707	122.5142	NAP	Calistoga	Youngs and others, 1980	
529	Unnamed Well	WW	N	38.5760	122.5167	NAP	Calistoga	Youngs and others, 1980	
530	Unnamed Well	WW	N	38.5763	122.5187	NAP	Calistoga	Youngs and others, 1980	
531	Unnamed Well	WW	N	38.5938	122.6065	NAP	Calistoga	Youngs and others, 1980	
532	Unnamed Well	WW	N	38.5917	122.6110	NAP	Calistoga	Youngs and others, 1980	
533	Unnamed Well	WW	N	38.5777	122.5257	NAP	Calistoga	Youngs and others, 1980	
534	Unnamed Well	WW	N	38.5882	122.5803	NAP	Calistoga	Youngs and others, 1980	
535	Unnamed Well	WW	N	38.5878	122.5795	NAP	Calistoga	Youngs and others, 1980	
536	Unnamed Well	WW	N	38.5988	122.6075	NAP	Calistoga	Youngs and others, 1980	
537	Unnamed Well	WW	N	38.5970	122.6158	NAP	Calistoga	Youngs and others, 1980	
538	Unnamed Well	WW	N	38.5948	122.6145	NAP	Calistoga	Youngs and others, 1980	
539	Unnamed Well	WW	N	38.5943	122.6147	NAP	Calistoga	Youngs and others, 1980	
540	Unnamed Well	WW	N	38.5937	122.6128	NAP	Calistoga	Youngs and others, 1980	
541	Unnamed Well	WW	N	38.5503	122.5375	NAP	Calistoga	Youngs and others, 1980	
542	Unnamed Well	WW	N	38.5620	122.5382	NAP	Calistoga	Youngs and others, 1980	
543	Unnamed Well	WW	N	38.5887	122.5968	NAP	Calistoga	Youngs and others, 1980	
544	Unnamed Well	WW	N	38.5925	122.5920	NAP	Calistoga	Youngs and others, 1980	
545	Unnamed Well	WW	N	38.5650	122.5355	NAP	Calistoga	Youngs and others, 1980	
546	Unnamed Well	WW	N	38.5760	122.5295	NAP	Calistoga	Youngs and others, 1980	
547	La Vida Mnr. Sp. Well	SW	Y	33.9350	117.7917	ORA	Yorba Linda	Berkstresser, 1968b	
548	Well 3S/9W-22C2 S	WW	Y	33.9025	117.8125	ORA	Yorba Linda	CA. Dept. Water Res., 1966a	
549	Seguro No.1 Well	X	Y	33.6895	118.0062	ORA	Huntington Beach	Majmundar, 1984	
550	Obrien Porter No.2 Well	X	Y	33.6842	117.9983	ORA	Huntington Beach	Majmundar, 1984	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
551	McCasden Well	X	Y	33.6688	118.0137	ORA	Huntington Beach	Majmundar, 1984	
552	Beloil Davenport Well	X	Y	33.6750	117.9958	ORA	Newport Beach	Majmundar, 1984	
553	Fairview Hot Sp. Well	SW	Y	33.6733	117.9183	ORA	Newport Beach	Waring, 1965	
554	Well 5S/9W-34Q1 S	WW	Y	33.6883	117.8035	ORA	Irvine	CA. Dept. Water Res., 1966b	
555	Well 7S/8W-16Q1 S	WW	Y	33.5567	117.7167	ORA	San Juan Capistrano	CA. Dept. Water Res., 1967b	
556	Unnamed Spring	SP	Y	33.5137	117.6043	ORA	San Juan Capistrano	CA. Dept. Water Res., 1967b	
557	San Juan Hot Springs	SP	Y	33.5890	117.5003	ORA	San Juan Capistrano	Berkstresser, 1968b	
558	Brockway Hot Springs	SP	Y	39.2273	120.0133	PLA	N. Lake Tahoe	Leivas and Bacon, 1982	
559	Unnamed Spring	SP	Y	40.4425	121.4125	PLU	Lassen	Waring, 1965	
560	Devil's Kitchen	SP	Y	40.4413	121.4333	PLU	Lassen	Waring, 1965	
561	Terminal Geyser	SP	Y	40.4213	121.3767	PLU	Lassen	Majmundar, 1984	
562	Drake Hot Springs	SP	Y	40.4425	121.4025	PLU	Lassen	Bliss, 1983	
563	Boiling Springs Lake	SP	Y	40.4357	121.3967	PLU	Lassen	Waring, 1965	
564	Terminal Geyser Well	X	Y	40.4208	121.3767	PLU	Lassen	Majmundar, 1984	
565	Indian Valley Hot Sps.	SP	Y	40.1413	120.9337	PLU	Greenville	Waring, 1965	
566	Indian Val. Hosp., GRN-1	NLT	Y	40.1441	120.9445	PLU	Greenville	CA. Div. Oil and Gas, 1993	
567	Plumas Sch. Dist., GHS-1	NLT	Y	40.1397	120.9446	PLU	Greenville	CA. Div. Oil and Gas, 1993	
568	Warm Sps. at Twain	SP	Y	40.0187	121.0358	PLU	Quincy	Leivas and Bacon, 1982	
569	White Sulfur Springs	SP	Y	39.7283	120.5475	PLU	Portola	Leivas and Bacon, 1982	
570	Marble Hot Wells	WW	Y	39.7565	120.3583	PLU	Sierra Valley	Leivas and Bacon, 1982	
571	Well 22N/14E-25H1 M	WW	Y	39.7310	120.3533	PLU	Sierra Valley	CA. Dept. Water Res., 1961a	
572	Well 22N/15E-17C3 M	WW	Y	39.7650	120.3242	PLU	Sierra Valley	CA. Dept. Water Res., 1966a	
573	Well 23N/15E-36J2 M	WW	Y	39.8008	120.2408	PLU	Sierra Valley	CA. Dept. Water Res., 1961a	
574	Well 22N/15E-23C1 M	WW	Y	39.7500	120.2700	PLU	Sierra Valley	CA. Dept. Water Res., 1961a	
575	Well 22N/15E-28L1 M	WW	Y	39.7292	120.3055	PLU	Sierra Valley	CA. Dept. Water Res., 1961a	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
576	W. Hagge Well No.1	WW	Y	39.7217	120.3217	PLU	Sierra Valley	Reed, 1975	
577	Well 22N/15E-32F1 M	WW	Y	39.7158	120.3242	PLU	Sierra Valley	Reed, 1975	
578	Well 22N/15E-32R1 M	WW	Y	39.7092	120.3167	PLU	Sierra Valley	Majmundar, 1984	
579	Well 22N/15E-33M1 M	WW	Y	39.7153	120.3100	PLU	Sierra Valley	Majmundar, 1984	
580	Glen Ivy Hot Sp. Well	SW	Y	33.7562	117.4945	RIV	Glen Ivy Hot Sp.	Berkstresser, 1968b	
581	Well 3S/7W-11F1 S	WW	Y	33.9250	117.5875	RIV	Norco	Moyle, 1974	
582	Well 3S/3W-2L1 S	WW	Y	33.9388	117.1650	RIV	San Jacinto	CA. Dept. Water Res., 1966a	
583	Well 3S/2W-7P1 S	WW	Y	33.9200	117.1333	RIV	San Jacinto	Moyle, 1974	
584	Highland Springs	SP	Y	33.9695	116.9417	RIV	Banning	Bliss, 1983	
585	Eden Hot Springs	SP	Y	33.8967	117.0542	RIV	San Jacinto	Moyle, 1974	
586	Unnamed Spring	SP	Y	33.8658	117.0993	RIV	San Jacinto	Majmundar, 1984	
587	Lakeview Hot Springs	SP	Y	33.8378	117.1445	RIV	San Jacinto	Waring, 1965	
588	Gilman Hot Springs	SP	Y	33.8350	116.9867	RIV	San Jacinto	Waring, 1919	
589	Soboba Hot Springs	SP	Y	33.8008	116.9267	RIV	San Jacinto	Leivas and others, 1981	
590	Well 5S/1E-5M2 S	WW	Y	33.7633	116.9067	RIV	San Jacinto	CA. Dept. Water Res., 1970b	
591	Well 5S/1W-16C1 S	WW	Y	33.7417	116.9917	RIV	Hemet	Moyle, 1974	
592	Wrenden Hot Springs	SP	Y	33.6692	117.3275	RIV	Lake Elsinore	Waring, 1919	
593	Elsinore Hot Springs	SW	Y	33.6695	117.3287	RIV	Lake Elsinore	Leivas and others, 1981	
594	Lake Elsinore,"GW" 1	CLT	N	33.6691	117.3268	RIV	Lake Elsinore	CA. Div. Oil and Gas, 1993	
595	Lake Elsinore,"GW" 2	CLT	N	33.6706	117.3251	RIV	Lake Elsinore	CA. Div. Oil and Gas, 1993	
596	Lake Elsinore,"GW" 3	CLT	Y	33.6683	117.3281	RIV	Lake Elsinore	CA. Div. Oil and Gas, 1993	
597	Well 6S/2W-10D1 S	WW	Y	33.6705	117.0823	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
598	Unnamed Well	WW	Y	33.6708	117.0637	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
599	Well 5S/1W-32Q1 S	WW	Y	33.6858	117.0022	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
600	Well 6S/1W-4J2 S	WW	Y	33.6783	116.9795	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
601	Well 6S/2W-10E1 S	WW	Y	33.6667	117.0828	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
602	Well 6S/2W-15D1 S	WW	Y	33.6555	117.0825	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
603	Well 6S/4W-34J2 S	WW	Y	33.6045	117.2753	RIV	Lake Elsinore	CA. Dept. Water Res., 1971	
604	Well 6S/4W-35D1 S	WW	Y	33.6122	117.2740	RIV	Lake Elsinore	CA. Dept. Water Res., 1971	
605	Temecula Hot Springs	SP	Y	33.5533	117.1675	RIV	Temecula	Moyle, 1974	
606	Well 8S/3W-7D3 S	WW	Y	33.5033	117.2392	RIV	Temecula	Majmundar, 1984	
607	Murrieta Hot Springs	SP	Y	33.5588	117.1572	RIV	Murrieta Springs	Leivas and others, 1981	
608	Well 7S/2W-3N1 S	WW	Y	33.5838	117.0828	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
609	Well 7S/2W-2P2 S	WW	Y	33.5862	117.0573	RIV	Murrieta Springs	CA. Dept. Water Res., 1971	
610	Unnamed Spring	SP	Y	33.5417	116.7417	RIV	Cahuilla	Majmundar, 1984	
611	Agua Caliente Spring	SP	Y	33.8250	116.5447	RIV	Palm Springs	Leivas and others, 1981	
612	Unnamed Well	WW	Y	33.9083	116.3717	RIV	Desert Hot Springs	Moyle, 1974	
613	Unnamed Well	WW	Y	33.8992	116.3633	RIV	Desert Hot Springs	Moyle, 1974	
614	Well 5S/6E-24N2 S	WW	Y	33.7177	116.3165	RIV	Indian Wells	Leivas and others, 1981	
615	Well 7S/9E-18M1 S	WW	Y	33.5617	116.0925	RIV	N.W. Salton Sea	CA. Dept. Water Res., 1970a	
616	Well 8S/8E-10B1 S	WW	Y	33.4958	116.1375	RIV	N.W. Salton Sea	CA. Dept. Water Res., 1969b	
617	Well 8S/8E-13Q1 S	WW	Y	33.4700	116.1033	RIV	N.W. Salton Sea	CA. Dept. Water Res., 1970a	
618	Well 8S/9E-29Q1 S	WW	Y	33.4412	116.0692	RIV	N.W. Salton Sea	CA. Dept. Water Res., 1970a	
619	Well 8S/9E-29R1 S	WW	Y	33.4408	116.0642	RIV	N.W. Salton Sea	Majmundar, 1984	
620	Dos Palmas Spring	SP	Y	33.5108	115.8262	RIV	Dos Palmas Spring	CA. Dept. Water Res., 1970a	
621	Aqua Farms,"Aqua" 1	CLT	N	33.5088	115.8315	RIV	Dos Palmas Spring	CA. Div. Oil and Gas, 1993	
622	Aqua Farms."Aqua" 2	CLT	N	33.5074	115.8303	RIV	Dos Palmas Spring	CA. Div. Oil and Gas, 1993	
623	Aqua Farms,"Aqua" 3	CLT	Y	33.5074	115.8327	RIV	Dos Palmas Spring	CA. Div. Oil and Gas, 1993	
624	Hunter's Spring Wells	WW	Y	33.4883	115.7908	RIV	Dos Palmas Spring	CA. Dept. Water Res., 1970a	
625	Canyon Spring	SP	Y	33.5452	115.6533	RIV	Canyon Spring	Bliss, 1983	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
626	Kaiser North Well	X	Y	33.9417	115.4167	RIV	Eagle Mountain Mine	Rex, 1972	
627	Thurman Ragsdale Well	WW	Y	33.8250	115.4250	RIV	Desert Center	Rex, 1972	
628	Stanley Ragsdale Well	WW	Y	33.7125	115.4042	RIV	Desert Center	Rex, 1972	
629	Sunland Oil Well	X	Y	33.7058	115.4400	RIV	Desert Center	Rex, 1972	
630	Lazy C Trailer Park Well	WW	Y	33.7408	115.3700	RIV	Desert Center	Rex, 1972	
631	Cal Trans Well	WW	Y	33.7133	115.4082	RIV	Desert Center	Leivas and Bacon, 1982	
632	S.D. Trailer Park Well	WW	Y	33.7167	115.3958	RIV	Desert Center	Rex, 1972	
633	Morrison Well	WW	Y	33.7490	115.3560	RIV	Desert Center	Leivas and Bacon, 1982	
634	Desert Ctr. Airport Well	WW	Y	33.7533	115.3317	RIV	Desert Center	Bliss, 1983	
635	Corn Spring	SP	Y	33.6250	115.3247	RIV	Desert Center	Bliss, 1983	
636	McCoy Spring	SP	Y	33.7330	114.9067	RIV	McCoy Spring	Bliss, 1983	
637	Wiley Well	WW	Y	33.6092	114.9017	RIV	Wileys Well Rd.	Rex, 1972	
638	L.C. Winters Well	WW	Y	33.6958	114.6767	RIV	Blythe	Metzger and others, 1973	
639	Well 6S/22E-9P1 S	WW	Y	33.6625	114.6858	RIV	Blythe	Majmundar, 1984	
640	Well 6S/22E-20A1 S	WW	Y	33.6458	114.6942	RIV	Blythe	Majmundar, 1984	
641	Riverside Co. Airport (W)	WW	Y	33.6117	114.7083	RIV	Blythe	Rex, 1972	
642	Mesa Verde Well	WW	Y	33.6167	114.7333	RIV	Nicholls Warm Sps.	Rex, 1972	
643	Nicholls Warm Sps. Well	SW	Y	33.6033	114.7278	RIV	Nicholls Warm Sps.	Metzger and others, 1973	
644	Blythe-Mesa Verde Well	SW	Y	33.6020	114.7180	RIV	Nicholls Warm Sps.	Leivas and Bacon, 1982	
645	Basha # 3 Well	X	Y	33.5683	115.7458	RIV	Blythe	Metzger and others, 1973	
646	Bill Passey Well	WW	Y	33.6042	115.6923	RIV	Blythe	Metzger and others, 1973	
647	Basha # 1 Well	X	Y	33.6258	114.6800	RIV	Blythe	Metzger and others, 1973	
648	E. Weeks Well	WW	Y	33.6467	114.6625	RIV	Blythe	Metzger and others, 1973	
649	E. Fortner Well	WW	Y	33.6958	114.6583	RIV	Blythe	Metzger and others, 1973	
650	Blythe-Julian Well	WW	Y	33.6948	114.6533	RIV	Blythe	Leivas and Bacon, 1982	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
651	Lucky 7 Well	WW	Y	33.9258	116.4408	RIV	Desert Hot Springs	Proctor, 1968	
652	"Pratt" 1	NLT	N	33.9248	116.4369	RIV	Desert Hot Springs	CA. Div. Oil and Gas, 1993	
653	"Mohnsen" 1	NLT	N	33.9397	116.4650	RIV	Desert Hot Springs	CA. Div. Oil and Gas, 1993	
654	"Sky Valley" No. 1	NLT	N	33.9242	116.4127	RIV	Desert Hot Springs	CA. Div. Oil and Gas, 1993	
655	"Segal" 1	NLT	N	33.9363	116.4670	RIV	Desert Hot Springs	CA. Div. Oil and Gas, 1993	
656	"Linda Vista Lodge" 1	CLT	Y	33.9480	116.4879	RIV	Desert Hot Springs	CA. Div. Oil and Gas, 1993	
657	King Spa Well	WW	Y	33.4375	115.6900	RIV	Hot Mineral Spa	Rex, 1972	
658	New Pilger Hot Mnr. Well	WW	Y	33.4275	115.6867	RIV	Hot Mineral Spa	Moyle, 1974	
659	"Leiss" No. 1	CLT	N	33.4300	115.6899	RIV	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
660	"Leiss" No. 2	CLT	N	33.4286	115.6897	RIV	Hot Mineral Spa	CA. Div. Oil and Gas, 1993	
661	San Benito Mnr. Well	WW	Y	36.8155	121.3528	SBT	Hollister	Berkstresser, 1968b	
662	Sulfur Springs	SP	Y	36.2945	120.9853	SBT	Bitterwater	Bliss, 1983	
663	M.H. Morris Well	X	Y	35.7750	117.3600	SBD	Trona	CA. Dept. Water Res., 1969a	
664	Saratoga Spring	SP	Y	35.6818	116.4217	SBD	Saratoga Spring	Bliss, 1983	
665	Sheep Creek Spring	SP	Y	35.5892	116.3583	SBD	Silver Lake	Bliss, 1983	
666	Magma Power Co. Well	X	Y	35.3843	117.5362	SBD	Randsburg	Smith, 1964	
667	Paradise Spring	SP	Y	35.1433	116.8137	SBD	Fort Irwin	Bliss, 1983	
668	Soda Station Sps.	SP	Y	35.1422	116.1050	SBD	Barker	Thompson, 1929	
669	Newberry Spring	SP	N	34.8263	116.6763	SBD	Barstow	Thompson, 1929	
670	Flamingo Well	WW	Y	34.9555	114.8388	SBD	Needles	Moyle, 1974	
671	Unnamed Well	WW	Y	34.8417	114.9750	SBD	Needles	Bliss, 1983	
672	Roy Lye Well No.1	WW	Y	34.0995	114.4500	SBD	Vidal	Leivas and Bacon, 1982	
673	Well 1S/24E-10N1 S	WW	Y	34.0950	114.4533	SBD	Vidal	Metzger and others, 1973	
674	Roy Lye Well No.2	WW	Y	34.0907	114.4628	SBD	Vidal	Leivas and Bacon, 1982	
675	Well 1S/24E-16B1 S	WW	Y	34.0917	114.4600	SBD	Vidal	Metzger and others, 1973	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
676	Well 2N/7E-3B1 S	WW	Y	34.2937	116.2367	SBD	Twentynine Palms	Majmundar, 1984	
677	Well 1N/8E-2N1 S	WW	Y	34.1942	116.1217	SBD	Twentynine Palms	Moyle, 1974	
678	Jewell Well	WW	Y	34.1798	116.0648	SBD	Twentynine Palms	Leivas and others, 1981	
679	Zuncich Well	WW	Y	34.1718	116.0987	SBD	Twentynine Palms	Leivas and others, 1981	
680	Well 1N/9E-29F1 S	WW	Y	34.1450	116.0633	SBD	Twentynine Palms	Moyle, 1974	
681	Well 1N/9E-14C1 S	WW	Y	34.1783	116.0117	SBD	Twentynine Palms	Moyle, 1974	
682	Well 1N/5E-12D1 S	WW	Y	34.1917	116.4192	SBD	Yucca Valley	Moyle, 1974	
683	Pan Hot Spring	SW	Y	34.2717	116.8375	SBD	Big Bear Lake	Leivas and others, 1981	
684	Unnamed Spring	SP	Y	34.3410	117.1690	SBD	Lake Arrowhead	Waring, 1965	
685	Unnamed Spring	SP	Y	34.3392	117.1760	SBD	Lake Arrowhead	Waring, 1965	
686	Tylers Bath (Spring)	SP	Y	34.2305	117.4838	SBD	Lytle Creek	Waring, 1965	
687	Waterman Hot Spring	SP	N	34.1892	117.2710	SBD	San Bernardino	Berkstresser, 1968b	
688	Waterman Hot Springs	SP	Y	34.1892	117.2710	SBD	San Bernardino	Youngs and others, 1981	
689	Waterman Hot Springs (W)	SW	Y	34.1887	117.2710	SBD	San Bernardino	Youngs and others, 1981	
690	Arrowhead Hot Springs	SP	N	34.1870	117.2630	SBD	Arrowhead Hot Sps.	Berkstresser, 1968b	
691	Arrowhead Hot Springs (W)	SW	Y	34.1870	117.2647	SBD	Arrowhead Hot Sps.	Youngs and others, 1981	
692	"Granite Hot Spring"	SP	N	34.1868	117.2645	SBD	Arrowhead Hot Sps.	Youngs and others, 1981	
693	"Penyugal Hot Spring"	SP	N	34.1872	117.2633	SBD	Arrowhead Hot Sps.	Youngs and others, 1981	
694	"Palm Hot Spring"	SP	N	34.1870	117.2612	SBD	Arrowhead Hot Sps.	Youngs and others, 1981	
695	"Mud Bath Well"	SW	Y	34.1870	117.2612	SBD	Arrowhead Hot Sps.	Youngs and others, 1981	
696	"Hot Well"	WW	Y	34.1897	117.2610	SBD	Arrowhead Hot Sps.	Youngs and others, 1981	
697	Unnamed Springs	SP	Y	34.1220	117.0787	SBD	Redlands	Waring, 1965	
698	Harlem Hot Springs Well	SW	N	34.1225	117.2247	SBD	San Bernardino	Waring, 1915	
699	Harlem Hot Sps.(R 385)	SW	N	34.1230	117.2247	SBD	San Bernardino	Mendenhall, 1905	
700	Harlem Hot Springs Well	SW	Y	34.1230	117.2247	SBD	San Bernardino	Waring, 1915	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
701	Well (State # E-53h)	SW	Y	34.1227	117.2245	SBD	San Bernardino	Dutcher and Garrett, 1963	
702	Well (State # E-50h)	SW	N	34.1227	117.2252	SBD	San Bernardino	Youngs and others, 1981	
703	Well 1N/3W-32N3 S	WW	Y	34.1233	117.2250	SBD	San Bernardino	Moyle, 1974	
704	Well 1N/3W-33M1 S	WW	Y	34.1267	117.2050	SBD	San Bernardino	Moyle, 1974	
705	Urbita Hot Sps. Well	SW	N	34.0867	117.2958	SBD	San Bernardino	Waring, 1915	
706	Urbita Springs Well	WW	N	34.0875	117.2972	SBD	San Bernardino	Youngs and others, 1981	
707	Urbita Hot Sps. Wells	WW	Y	34.0868	117.2958	SBD	San Bernardino	Youngs and others, 1981	
708	Well 1S/4W-15L3 S	WW	Y	34.0833	117.2875	SBD	San Bernardino	CA. Dept. Water Res., 1970c	
709	Patton Hospital #14	WW	Y	34.1413	117.2203	SBD	San Bernardino	Youngs and others, 1981	
710	Patton Hospital #10	WW	N	34.1372	117.2242	SBD	San Bernardino	Youngs and others, 1981	
711	Patton Hospital #11	WW	N	34.1343	117.2207	SBD	San Bernardino	Youngs and others, 1981	
712	Well (R 375)	WW	N	34.1355	117.2372	SBD	San Bernardino	Mendenhall, 1905	
713	Well 1N/3W-31L4 S	WW	N	34.1283	117.2343	SBD	San Bernardino	Dutcher and Garrett, 1963	
714	Patton Hospital #9	WW	Y	34.1268	117.2343	SBD	San Bernardino	Youngs and others, 1981	
715	Well (R 361)	WW	N	34.1232	117.2280	SBD	San Bernardino	Mendenhall, 1905	
716	Well (State # E-50m)	WW	Y	34.1222	117.2287	SBD	San Bernardino	Youngs and others, 1981	
717	Base Line Laundry Well	WW	Y	34.1225	117.2322	SBD	San Bernardino	Youngs and others, 1981	
718	Well 1S/3W-6C3 S	WW	N	34.1208	117.2350	SBD	San Bernardino	Youngs and others, 1981	
719	Well (R 327)	WW	N	34.1208	117.2442	SBD	San Bernardino	Mendenhall, 1905	
720	Well (R 328)	WW	N	34.1203	117.2433	SBD	San Bernardino	Mendenhall, 1905	
721	Well (R 329)	WW	N	34.1187	117.2427	SBD	San Bernardino	Mendenhall, 1905	
722	Well (R 330)	WW	N	34.1172	117.2427	SBD	San Bernardino	Mendenhall, 1905	
723	E.S.B.C.W.D. No.6	WW	N	34.1218	117.2492	SBD	San Bernardino	Youngs and others, 1981	
724	"Bone Yard Well"	WW	Y	34.1187	117.2487	SBD	San Bernardino	Youngs and others, 1981	
725	"Palm Well #1"	WW	N	34.1252	117.2073	SBD	San Bernardino	Dutcher and Garrett, 1963	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
726	Well 1S/3W-4C1 S	WW	N	34.1210	117.1998	SBD	San Bernardino	Youngs and others, 1981	
727	Dunkirk #1	WW	N	34.1172	117.1990	SBD	San Bernardino	Youngs and others, 1981	
728	Dunkirk #2	WW	N	34.1170	117.1993	SBD	San Bernardino	Youngs and others, 1981	
729	Well 1S/4W-8Q3 S	WW	N	34.0942	117.3178	SBD	San Bernardino	Dutcher and Garrett, 1963	
730	Well 1S/4W-8R2 S	WW	N	34.0948	117.3167	SBD	San Bernardino	Dutcher and Garrett, 1963	
731	Well (R 297)	WW	N	34.0925	117.3123	SBD	San Bernardino	Mendenhall, 1905	
732	Colton #12	WW	Y	34.0927	117.3125	SBD	San Bernardino	Dutcher and Garrett, 1963	
733	Well 1S/4W-9J1 S	WW	N	34.0978	117.3002	SBD	San Bernardino	Dutcher and Garrett, 1963	
734	Well 1S/4W-10E1 S	WW	N	34.0997	117.2928	SBD	San Bernardino	Dutcher and Garrett, 1963	
735	Well (State # E-92y)	WW	N	34.0992	117.2918	SBD	San Bernardino	Youngs and others, 1981	
736	Well (State # E-29a)	WW	N	34.1022	117.2907	SBD	San Bernardino	Youngs and others, 1981	
737	"Mill & D St. Well"	WW	N	34.0925	117.2913	SBD	San Bernardino	Youngs and others, 1981	
738	"Mill & D" 2	CLT	Y	34.0927	117.2914	SBD	San Bernardino	CA. Div. Oil and Gas, 1993	
739	Well 1S/4W-16G5 S	WW	N	34.0885	117.3033	SBD	San Bernardino	Dutcher and Garrett, 1963	
740	Well (234)	WW	N	34.0823	117.3068	SBD	San Bernardino	Mendenhall, 1905	
741	De Sienna Hot Sp. Well	WW	N	34.0817	117.3067	SBD	San Bernardino	Youngs and others, 1981	
742	Well 1S/4W-16L3 S	WW	N	34.0823	117.3048	SBD	San Bernardino	Moyle, 1974	
743	Well (23)	WW	N	34.0840	117.2982	SBD	San Bernardino	Mendenhall, 1905	
744	Well (19)	WW	N	34.0823	117.2978	SBD	San Bernardino	Mendenhall, 1905	
745	Well 1S/4W-16J2 S	WW	N	34.0825	117.2973	SBD	San Bernardino	Dutcher and Garrett, 1963	
746	Meeks & Daly Coburn Well	WW	N	34.0823	117.2988	SBD	San Bernardino	Youngs and others, 1981	
747	Meeks & Daly #69	WW	N	34.0815	117.2982	SBD	San Bernardino	Youngs and others, 1981	
748	Well 1S/4W-16Q1 S	WW	N	34.0802	117.3012	SBD	San Bernardino	Dutcher and Garrett, 1963	
749	Meeks & Daly New E	WW	N	34.0817	117.2942	SBD	San Bernardino	Youngs and others, 1981	
750	Meeks & Daly Old E	WW	N	34.0817	117.2938	SBD	San Bernardino	Dutcher and Garrett, 1963	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
751	Meeks & Daly #51	WW	N	34.0797	117.2942	SBD	San Bernardino	Youngs and others, 1981	
752	Well 1S/4W-21A1 S	WW	N	34.0752	117.2962	SBD	San Bernardino	Dutcher and Garrett, 1963	
753	Well (State # E-39v)	WW	N	34.1052	117.2775	SBD	San Bernardino	Youngs and others, 1981	
754	Well (465)	WW	N	34.1102	117.2682	SBD	San Bernardino	Mendenhall, 1905	
755	Well (315)	WW	N	34.1043	117.2563	SBD	San Bernardino	Mendenhall, 1905	
756	Meeks & Daly #66	WW	Y	34.0862	117.2890	SBD	San Bernardino	Youngs and others, 1981	
757	"Byrne Well"	WW	N	34.0775	117.2868	SBD	San Bernardino	Youngs and others, 1981	
758	Meeks & Daly #59	WW	N	34.0818	117.2865	SBD	San Bernardino	Youngs and others, 1981	
759	Well (State # E-98e)	WW	N	34.0767	117.2837	SBD	San Bernardino	Youngs and others, 1981	
760	Well (State # E-130h)	WW	N	34.0763	117.2812	SBD	San Bernardino	Youngs and others, 1981	
761	Well 1S/4W-22A1 S	WW	N	34.0762	117.2805	SBD	San Bernardino	Dutcher and Garrett, 1963	
762	"Thorn # 12"	WW	N	34.0770	117.2837	SBD	San Bernardino	Youngs and others, 1981	
763	Well (252)	WW	N	34.0803	117.2717	SBD	San Bernardino	Mendenhall, 1905	
764	Well 1S/4W-23C2 S	WW	N	34.0762	117.2715	SBD	San Bernardino	Dutcher and Garrett, 1963	
765	Well (121)	WW	N	34.0738	117.2640	SBD	San Bernardino	Mendenhall, 1905	
766	Well (122)	WW	N	34.0745	117.2638	SBD	San Bernardino	Mendenhall, 1905	
767	Well (123)	WW	N	34.0752	117.2637	SBD	San Bernardino	Mendenhall, 1905	
768	Well (124)	WW	N	34.0767	117.2623	SBD	San Bernardino	Mendenhall, 1905	
769	Well (126)	WW	N	34.0782	117.2587	SBD	San Bernardino	Mendenhall, 1905	
770	Well (127)	WW	N	34.0798	117.2575	SBD	San Bernardino	Mendenhall, 1905	
771	Well (128)	WW	N	34.0807	117.2570	SBD	San Bernardino	Mendenhall, 1905	
772	Well (112)	WW	N	34.0802	117.2523	SBD	San Bernardino	Mendenhall, 1905	
773	Well (106)	WW	N	34.0740	117.2565	SBD	San Bernardino	Mendenhall, 1905	
774	Well (104)	WW	N	34.0737	117.2522	SBD	San Bernardino	Mendenhall, 1905	
775	Well (017)	WW	N	34.0692	117.2925	SBD	San Bernardino	Mendenhall, 1905	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
776	Well (053)	WW	N	34.0695	117.2895	SBD	San Bernardino	Mendenhall, 1905	
777	Well (018)	WW	N	34.0685	117.2922	SBD	San Bernardino	Mendenhall, 1905	
778	Well 1S/4W-22G2 S	WW	N	34.0722	117.2852	SBD	San Bernardino	Dutcher and Garrett, 1963	
779	Well 1S/4W-22H3 S	WW	N	34.0728	117.2788	SBD	San Bernardino	Dutcher and Garrett, 1963	
780	Well 1S/4W-22H4 S	WW	N	34.0717	117.2782	SBD	San Bernardino	Dutcher and Garrett, 1963	
781	Well 1S/4W-27A8 S	WW	N	34.0627	117.2783	SBD	San Bernardino	Dutcher and Garrett, 1963	
782	Well (008)	WW	N	34.0598	117.2788	SBD	San Bernardino	Mendenhall, 1905	
783	Well (120)	WW	N	34.0618	117.2700	SBD	San Bernardino	Mendenhall, 1905	
784	Well (119)	WW	N	34.0607	117.2702	SBD	San Bernardino	Mendenhall, 1905	
785	Well (118)	WW	N	34.0597	117.2703	SBD	San Bernardino	Mendenhall, 1905	
786	Well (117)	WW	N	34.0588	117.2703	SBD	San Bernardino	Mendenhall, 1905	
787	Well (116)	WW	N	34.0580	117.2703	SBD	San Bernardino	Mendenhall, 1905	
788	Well 1S/4W-26F2 S	WW	N	34.0572	117.2737	SBD	San Bernardino	Dutcher and Garrett, 1963	
789	Well (115)	WW	N	34.0535	117.2730	SBD	San Bernardino	Mendenhall, 1905	
790	"Arroyo Verde Well" 1	WW	N	34.1182	117.2472	SBD	San Bernardino	Mendenhall, 1905	
791	"Arroyo Verde Well" 2	WW	N	34.1182	117.2472	SBD	San Bernardino	Mendenhall, 1905	
792	De Luz Warm Springs	SP	Y	33.4358	117.3250	SDG	De Luz	Berkstresser, 1968b	
793	Agua Tibia Sp. Well	SW	Y	33.3665	117.3910	SDG	Pala	Leivas and Bacon, 1982	
794	Well 10S/1W-23N1 S	WW	Y	33.2878	116.9587	SDG	Rincon Springs	CA. Dept. Water Res., 1967b	
795	Warner Hot Springs	SP	Y	33.2838	116.6308	SDG	Warner Hot Sps.	Leivas and others, 1981	
796	Well 12S/2W-17H1 S	WW	Y	33.1320	117.1028	SDG	Escondido	CA. Dept. Water Res.,1967b	
797	Circ T Trailer Park Well	WW	N	33.1492	116.1825	SDG	Borrego Valley	Rex, 1972	
798	M.A. Smith Well	WW	Y	33.1562	116.1680	SDG	Borrego Valley	Rex, 1972	
799	E. Robinson Well	WW	N	33.1445	116.1342	SDG	Borrego Valley	Rex, 1972	
800	A. Toner Well	WW	Y	33.1450	116.1183	SDG	Borrego Valley	Rex, 1972	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
801	A. Williams Well	WW	N	33.1258	116.1300	SDG	Borrego Valley	Rex, 1972	
802	Cornish Well	WW	Y	33.1058	116.1300	SDG	Borrego Valley	Rex, 1972	
803	De Anza Trail Inn Well	WW	N	33.1247	116.1308	SDG	Ocotillio Wells	Leivas and Bacon, 1982	
804	C. Peterson Well	WW	Y	33.1387	116.1555	SDG	Borrego Valley	Rex, 1972	
805	Ironwood Motel Well	WW	Y	33.1495	116.1820	SDG	Borrego Valley	Rex, 1972	
806	Vallecitos Spring	SP	Y	32.9703	116.4230	SDG	Agua Caliente Sps.	Berkstresser, 1968b	
807	Agua Caliente Springs	SP	Y	32.9483	116.3040	SDG	Agua Caliente Sps.	Leivas and Bacon, 1982	
808	Raymond Rasco Well	WW	Y	32.6200	116.1583	SDG	Jacumba	Rex, 1972	
809	Jacumba Hot Springs	SP	Y	32.6158	116.1922	SDG	Jacumba	Moyle, 1974	
810	Henry Lazare Well	WW	Y	32.6162	116.2920	SDG	Jacumba	Rex, 1972	
811	Well 17S/5E-3R1 S	WW	Y	32.7203	116.4550	SDG	Morena Village	CA. Dept. Water Res., 1967b	
812	Well 15S/1W-14Q1 S	WW	Y	32.8627	116.9510	SDG	Santee	Youngs, 1984	
813	Well 16S/2W-16C1 S	WW	Y	32.7861	117.0940	SDG	San Diego	Youngs, 1984	
814	Well 18S/2E-14E1 S	WW	Y	32.6088	116.7520	SDG	San Diego	CA. Dept. Water Res., 1967b	
815	Well 18S/2W-28L1 S	WW	Y	32.5733	117.0933	SDG	San Diego	CA. Dept. Water Res., 1967b	
816	Well 18S/2W-21H1 S	WW	Y	32.5917	117.0858	SDG	San Diego	CA. Dept. Water Res., 1967b	
817	Well 18S/2W-28P1 S	WW	Y	32.5710	117.0945	SDG	San Diego	Youngs, 1984	
818	Well 18S/2W-33L10 S	WW	Y	32.5583	117.0925	SDG	San Diego	CA. Dept. Water Res., 1967b	
819	Well 18S/1W-31H1 S	WW	Y	32.5629	117.0163	SDG	San Diego	Youngs, 1984	17
820	Well 18S/1W-34N1 S	WW	Y	32.5563	116.9788	SDG	San Diego	CA. Dept. Water Res., 1967b	
821	Well 19S/1W-3E1 S	WW	Y	32.5487	116.9750	SDG	San Diego	CA. Dept. Water Res., 1967b	
822	Well 15S/2W-19D1 S	WW	N	32.8592	117.1330	SDG	San Diego	Youngs, 1984	17
823	Well 15S/1W-27G1 S	WW	N	32.8404	116.9681	SDG	San Diego	Youngs, 1984	17
824	Well 15S/1W-27G5 S	WW	N	32.8404	116.9681	SDG	San Diego	Youngs, 1984	17
825	Well 16S/3W-16Q1 S	WW	N	32.7753	117.1931	SDG	San Diego	Youngs, 1984	17

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
826	Well 16S/3W-16R1 S	WW	N	32.7755	117.1885	SDG	San Diego	Youngs, 1984	17
827	Well 16S/2W-16D3 S	WW	N	32.7861	117.0983	SDG	San Diego	Youngs, 1984	17
828	Well 16S/2W-18L1 S	WW	N	32.7787	117.1283	SDG	San Diego	Youngs, 1984	17
829	Well 16S/3W-22P1 S	WW	N	32.7607	117.1797	SDG	San Diego	Youngs, 1984	17
830	Well 17S/2W-4B1 S	WW	N	32.7278	117.0898	SDG	San Diego	Youngs, 1984	17
831	Well 17S/2W-15J1 S	WW	N	32.6914	117.0680	SDG	San Diego	Youngs, 1984	17
832	Well 18S/2W-24M1 S	WW	N	32.5892	117.0466	SDG	San Diego	Wiegand, 1982	
833	Well 18S/2W-27G1 S	WW	N	32.5779	117.0728	SDG	San Diego	Youngs, 1984	17
834	Well 19S/2W-1N6 S	WW	N	32.5414	117.0467	SDG	San Diego	Youngs, 1984	17
835	Well 15S/3W-32 S	OIL	N	32.8220	117.2191	SDG	San Diego	Youngs, 1984	17
836	Rohr Ind.s 18S/2W-9F S	TG	Y	32.6219	117.0952	SDG	San Diego	Miller and others, 1981	
837	Well 18S/2W-21 S	OIL	N	32.5865	117.0983	SDG	San Diego	Youngs, 1984	17
838	Well 18S/2W-32 S	OIL	N	32.5573	117.1059	SDG	San Diego	Youngs, 1984	17
839	Unnamed Well	WW	Y	32.5842	117.0873	SDG	San Diego	Wiegand, 1982	
840	Unnamed Well	WW	Y	32.5724	117.0927	SDG	San Diego	Wiegand, 1982	
841	Unnamed Well	WW	Y	32.5845	117.0696	SDG	San Diego	Wiegand, 1982	
842	Lone Tree Mnr. Spring	SP	Y	37.5732	121.4452	SJQ	S. San Joaquin Co.	Berkstresser, 1968b	
843	Unnamed Spring	SP	Y	37.5685	121.4462	SJQ	S. San Jacquin Co.	Berkstresser, 1968b	
844	Paso Robles Artesian Sp.	SP	Y	35.6625	120.6917	SLO	Paso Robles	Bliss, 1983	
845	Paso Robles Mud Bath Sps.	SP	Y	35.6570	120.6945	SLO	Paso Robles	Berkstresser, 1968b	
846	Unnamed Spring	SP	Y	35.6492	120.6868	SLO	Paso Robles	Majmundar, 1984	
847	Well 26S/13E-11L1 M	WW	Y	35.6792	120.5433	SLO	Paso Robles	CA. Dept. Water Res., 19972b	
848	Well 26S/12E-29C M	WW	Y	35.6447	120.7035	SLO	Paso Robles	Leivas and others, 1981	
849	Unnamed Well	WW	Y	35.6417	120.6458	SLO	Paso Robles	Majmundar, 1984	
850	Santa Ysabel Springs	SP	Y	35.5822	120.6645	SLO	Paso Robles	Berkstresser, 1968b	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
851	Paso Robles City Baths	SW	Y	35.6253	120.6880	SLO	Paso Robles	Berkstresser, 1968b	
852	Calaqua No.1	X	Y	35.5838	120.5458	SLO	Paso Robles	Majmundar, 1984	
853	Cameta Warm Spring	SP	Y	35.4000	120.2500	SLO	Cameta Warm Spring	Waring, 1965	
854	Pecho Warm Springs	SP	N	35.2692	120.8570	SLO	Morro Bay	Waring, 1965	
855	Sycamore Hot Sps. Well	OIL	Y	35.1867	120.7133	SLO	San Luis Obispo	Leivas and others, 1981	
856	Avila Hot Springs Well	WW	Y	35.1808	120.7017	SLO	San Luis Obisbo	Leivas and others, 1981	
857	Newsom Springs	SP	Y	35.1225	120.5430	SLO	Arroyo Grande	Leivas and others, 1981	
858	Well 10N/27W-5L1 S	WW	Y	34.9770	119.7930	SBA	Cuyama	CA. Dept. Water Res., 1966a	
859	Well 7N/35W-17Q1 S	WW	Y	34.6845	120.5848	SBA	Vandenberg A.F.B.	Majmundar, 1984	
860	Well 5N/33W-31A1 S	WW	Y	34.4778	120.3680	SBA	Pt. Conception	Majmundar, 1984	
861	Las Cruces Hot Springs	SP	Y	34.5023	120.2178	SBA	Las Cruces	Leivas and Bacon, 1982	
862	Well 5N/32W-35F1 S	WW	Y	34.4763	120.2015	SBA	Gaviota	CA. Dept. Water Res., 1966a	
863	Well 5N/30W-32P1 S	WW	Y	34.4647	120.0463	SBA	El Capitan	Majmundar, 1984	
864	Unamed Sp.,Tecolote Tun.	SP	Y	34.5163	119.9042	SBA	Lake Cachuma	Majmundar, 1984	
865	San Marcos Hot Springs	SP	Y	34.5372	119.8812	SBA	Lake Cachuma	Berkstresser, 1968b	
866	Unamed Sp.,Tecolote Tun.	SP	Y	34.5103	119.9008	SBA	Lake Cachuma	Majmundar, 1984	
867	Montecito Hot Springs	SP	Y	34.4625	119.6380	SBA	Montecito	Leivas and others, 1981	
868	Little Caliente Spring	SP	Y	34.5405	119.6195	SBA	Montecito	Waring, 1965	
869	Agua Caliente Spring	SP	Y	34.5397	119.5620	SBA	Montecito	Berkstresser, 1968b	
870	Boron Spring	SP	Y	34.4228	119.5380	SBA	Montecito	Berkstresser, 1968b	
871	Gaviota Steam Vents	SP	Y	34.4677	120.2783	SBA	Gaviota Beach	Leivas and Bacon, 1982	
872	White Sulphur Spring	SP	Y	37.3973	121.7970	SCL	Milpitas	Berkstresser, 1968b	
873	Gilroy Hot Spring	SP	Y	37.1092	121.4778	SCL	Gilroy	Berkstresser, 1968b	
874	Sargent Estate Warm Sp.	SP	Y	36.9405	121.5640	SCL	Gilroy	Berkstresser, 1968b	
875	Maplethorpe Well	WW	Y	36.9833	121.9417	SCR	Soquel	Bliss, 1983	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
876	Hunt Hot Springs	SP	Y	41.0338	121.9300	SHA	Big Bend	Leivas and Bacon, 1982	
877	Unnamed Well	WW	Y	41.0162	121.9067	SHA	Big Bend	Bliss, 1983	
878	Big Bend Hot Springs	SP	Y	41.0225	121.9195	SHA	Big Bend	Berkstresser, 1968a	
879	Indian Sps. Sch. Well	NLT	Y	41.0165	121.9075	SHA	Big Bend	Leivas and Bacon, 1982	
880	Indian Sps. Sch.,"ISS" 1	NLT	N	41.0205	121.9065	SHA	Big Bend	CA. Div. Oil and Gas, 1993	
881	Well 31N/4W-7A1 M	WW	Y	40.5625	122.3542	SHA	Redding	Majmundar, 1984	
882	Unnamed Springs	SP	Y	40.4567	121.5417	SHA	Lassen	Bliss, 1983	
883	Tophet Hot Springs	SP	Y	40.4503	121.5338	SHA	Lassen	Waring, 1965	
884	Bumpass Hell	SP	Y	40.4575	121.5000	SHA	Lassen	Bliss, 1983	
885	Well 21N/15E-5D1 M	WW	Y	39.7058	120.3308	SIE	Sierra Valley	CA. Dept. Water Res., 1961a	
886	Well 21N/15E-5E1 M	WW	Y	39.7025	120.3317	SIE	Sierra Valley	Majmundar, 1984	
887	Well 21N/15E-5E2 M	WW	Y	39.7017	120.3317	SIE	Sierra Valley	Reed, 1975	
888	Well 21N/15E-5P1 M	WW	Y	39.6942	120.3275	SIE	Sierra Valley	CA. Dept. Water Res., 1974a	
889	Well 21N/15E-6Q1 M	WW	Y	39.6950	120.3383	SIE	Sierra Valley	Majmundar, 1984	
890	Well 21N/15E-6Q3 M	WW	Y	39.6950	120.3400	SIE	Sierra Valley	CA. Dept. Water Res., 1961a	
891	Well 21N/15E-4L1 M	WW	Y	39.6988	120.3062	SIE	Loyalton	CA. Dept. Water Res., 1961a	
892	Campbell Hot Springs	SP	Y	39.5782	120.3537	SIE	Sierraville	Leivas and Bacon, 1982	
893	Sierra Co.,"SCGP" 1	CLT	Y	39.6822	120.3188	SIE	Sierra Valley	CA. Div. Oil and Gas, 1993	
894	Sulphur Springs	SP	Y	41.6595	123.3182	SIS	W. Siskiyo Co.	Berkstresser, 1968a	
895	Bogus Soda Springs	SP	Y	41.9187	122.3707	SIS	N. Siskiyo Co.	Leivas and Bacon, 1982	
896	Klamath Hot Springs	SP	Y	41.9712	122.2017	SIS	N. Siskiyo Co.	Bliss, 1983	
897	Well 48N/1W-28F1 M	WW	Y	41.9767	121.9878	SIS	N. Siskiyo Co.	CA. Dept. Water Res., 1970b	
898	Unnamed Well	WW	Y	41.9370	121.8505	SIS	N. Siskiyo Co.	Wood, 1960	
899	Unnamed Fumarole	SP	Y	41.6058	121.5237	SIS	Medicine Lake	Waring, 1965	
900	Unnamed Spring	SP	Y	41.4088	122.1948	SIS	Mt. Shasta	Bliss, 1983	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
901	Tolenas Springs	SP	Y	38.3102	122.0532	SOL	Fairfield	Berkstresser, 1968a	
902	Vallejo White Sulphur Sp.	SP	Y	38.1248	122.1882	SOL	Benicia	CA. Div. Mines & Geo., 1919	
903	Unnamed Spring	SP	Y	38.1012	122.1688	SOL	Benicia	Berkstresser, 1968a	
904	Hoods Hot Springs	SP	Y	38.7958	123.1625	SON	Cloverdale	Waring, 1965	
905	The Geysers (Devils Kit.)	SP	Y	38.8017	122.8067	SON	The Geysers	Berkstresser, 1968a	
906	Unnamed Spring	SP	Y	38.7767	122.7625	SON	The Geysers	Waring, 1965	
907	Little Geysers	SP	Y	38.7742	122.7478	SON	The Geysers	Waring, 1965	
908	Skaggs Springs	SP	Y	38.6938	123.0257	SON	Skaggs Springs	Barnes and others, 1973	
909	Mark West Springs	SP	Y	38.5488	122.72	SON	Mark West Spring	Berkstresser, 1968a	
910	Unnamed Spring	SP	Y	38.3885	122.567	SON	Sonoma Valley	Berkstresser, 1968a	
911	Morton's Warm Sps. Well	SW	Y	38.3943	122.5498	SON	Sonoma Valley	Campion and others, 1984	
912	Unnamed Spring	SP	Y	38.3567	122.5087	SON	Sonoma Valley	Berkstresser, 1968a	
913	Agua Caliente Sps. Well	WW	Y	38.322	122.4877	SON	Agua Caliente	Leivas and others,1981	
914	Fetters Hot Springs Well	WW	Y	38.322	122.4877	SON	Agua Caliente	Leivas and others,1981	
915	Agua C. School,"SV Geo" 1	CLT	N	38.322	122.4872	SON	Agua Caliente	CA. Div. Oil and Gas, 1993	
916	Boyes Hot Sps. Well	SW	N	38.3145	122.4864	SON	Boyes Hot Springs	Campion and others, 1984	
917	Boyes Hot Sps. "No.1"	SW	N	38.3143	122.4863	SON	Boyes Hot Springs	Campion and others, 1984	
918	Boyes Hot Sps. "No.2"	SW	N	38.3147	122.4866	SON	Boyes Hot Springs	Campion and others, 1984	
919	Sonoma Mission Inn,"SV" 1	CLT	Y	38.3138	122.4823	SON	Boyes Hot Springs	CA. Div. Oil and Gas, 1993	
920	Well 8N/8W-34M M	WW	Y	38.4933	122.7382	SON	Santa Rosa	Campion and others, 1984	
921	Well 7N/8W-2E M	WW	N	38.4845	122.7197	SON	Santa Rosa	Campion and others, 1984	
922	Well 8N/8W-35L M	WW	N	38.495	122.7127	SON	Santa Rosa	Campion and others, 1984	
923	Well 8N/8W-35P M	WW	N	38.4899	122.7133	SON	Santa Rosa	Campion and others, 1984	
924	Well 7N/8W-12D M	WW	N	38.4709	122.7022	SON	Santa Rosa	Campion and others, 1984	
925	Well 7N/8W-12E M	WW	Y	38.4687	122.7024	SON	Santa Rosa	Campion and others, 1984	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
926	Well 7N/8W-12N M	WW	Y	38.4612	122.7036	SON	Santa Rosa	Campion and others, 1984	
927	Well 7N/8W-12N M	WW	N	38.4604	122.7014	SON	Santa Rosa	Campion and others, 1984	
928	Unnamed Spring	SP	Y	38.4602	122.7017	SON	Santa Rosa	Campion and others, 1984	
929	Well 7N/8W-24A4 M	WW	Y	38.4428	122.6862	SON	Santa Rosa	Campion and others, 1984	
930	Well 7N/8W-24H M	WW	N	38.4416	122.686	SON	Santa Rosa	Campion and others, 1984	
931	Unnamed Spring	SP	Y	38.452	122.6483	SON	Santa Rosa	Campion and others, 1984	
932	Well 7N/7W-16G M	WW	Y	38.4549	122.6352	SON	Santa Rosa	Campion and others, 1984	
933	Well 7N/7W-32G9 M	WW	Y	38.4099	122.6524	SON	Bennett Valley	Campion and others, 1984	
934	Well 7N/7W-32L M	WW	N	38.4091	122.6564	SON	Bennett Valley	Campion and others, 1984	
935	Well 6N/7W-5A M	WW	Y	38.401	122.6491	SON	Bennett Valley	Campion and others, 1984	
936	Well 6N/7W-9A M	WW	N	38.3851	122.6308	SON	Bennett Valley	Campion and others, 1984	
937	Well 6N/8W-1Q M	WW	N	38.3908	122.6914	SON	Rohnert Park	Campion and others, 1984	
938	Well 7N/7W-25G M	WW	N	38.4239	122.5798	SON	Sonoma Valley	Campion and others, 1984	
939	Well 7N/6W-33D M	WW	N	38.4143	122.5366	SON	Sonoma Valley	Campion and others, 1984	
940	Well 7N/6W-32A M	WW	N	38.4121	122.5387	SON	Sonoma Valley	Campion and others, 1984	
941	Unnamed Well	WW	N	38.3997	122.5667	SON	Sonoma Valley	Campion and others, 1984	
942	McEwan Ranch Spring	SP	Y	38.3883	122.5685	SON	Sonoma Valley	Campion and others, 1984	
943	Nunn's Iron Spring	SP	N	38.4084	122.4859	SON	Sonoma Valley	Campion and others, 1984	
944	Sonoma State Hosp. Well	WW	N	38.3563	122.5086	SON	Sonoma Valley	Campion and others, 1984	
945	Unnamed Well	WW	N	38.3467	122.501	SON	Sonoma Valley	Campion and others, 1984	
946	Sonoma State Hosp. No. 3	WW	Y	38.3445	122.5193	SON	Sonoma Valley	Campion and others, 1984	
947	Unnamed Well	WW	N	38.3333	122.497	SON	Sonoma Valley	Campion and others, 1984	
948	Unnamed Well	WW	N	38.3297	122.49	SON	Sonoma Valley	Campion and others, 1984	
949	Well 6N/6W-35G M	WW	N	38.3236	122.49	SON	Sonoma Valley	Campion and others, 1984	
950	Well 6N/6W-35E M	WW	N	38.3227	122.4959	SON	Sonoma Valley	Campion and others, 1984	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
951	Unnamed Well	WW	N	38.3042	122.4968	SON	Sonoma Valley	Campion and others, 1984	
952	Well 5N/6W-12D M	WW	N	38.2978	122.4775	SON	Sonoma	Campion and others, 1984	
953	Unnamed Well	WW	Y	38.298	122.4733	SON	Sonoma	Campion and others, 1984	
954	Unnamed Well	WW	N	38.2947	122.4585	SON	Sonoma	Campion and others, 1984	
955	Unnamed Well	WW	N	38.2958	122.457	SON	Sonoma	Campion and others, 1984	
956	Unnamed Well	WW	N	38.2992	122.4568	SON	Sonoma	Campion and others, 1984	
957	Unnamed Well	WW	N	38.2983	122.4502	SON	Sonoma	Campion and others, 1984	
958	Well 5N/5W-7G M	WW	N	38.2964	122.4498	SON	Sonoma	Campion and others, 1984	
959	Well 5N/5W-7G M	WW	N	38.2946	122.4496	SON	Sonoma	Campion and others, 1984	
960	Unnamed Well	WW	N	38.296	122.4547	SON	Sonoma	Campion and others, 1984	
961	Unnamed Well	WW	N	38.2942	122.4567	SON	Sonoma	Campion and others, 1984	
962	Unnamed Spring	SP	Y	38.3248	122.4049	SON	Sonoma Valley	Campion and others, 1984	
963	Unnamed Well	WW	N	38.2823	122.4635	SON	Sonoma	Campion and others, 1984	
964	Well 5N/5W-17L M	WW	N	38.2817	122.4356	SON	Sonoma Valley	Campion and others, 1984	
965	Unnamed Well	WW	N	38.267	122.4992	SON	Sonoma Valley	Campion and others, 1984	
966	Well 5N/5W-31A1 M	WW	N	38.2426	122.4454	SON	Sonoma Valley	Campion and others, 1984	
967	Well 5N/5W-28R1 M	WW	N	38.246	122.4092	SON	Sonoma Valley	Campion and others, 1984	
968	Unnamed Well	WW	N	38.2537	122.3883	SON	Sonoma Valley	Campion and others, 1984	
969	Well 4N/5W-7C M	WW	N	38.2126	122.4547	SON	Sonoma Valley	Campion and others, 1984	
970	Unnamed Well	WW	N	38.2163	122.3728	SON	Sonoma Valley	Campion and others, 1984	
971	Well 5N/6W-25P2 M	WW	Y	38.2461	122.4728	SON	Sonoma Valley	Campion and others, 1984	
972	Salt Grass Springs	SP	Y	37.4312	121.3083	STA	W. Stanislaus Co.	Bliss, 1983	
973	Growler Hot Spring	SP	Y	40.3942	121.5078	TEH	Lassen	Bliss, 1983	
974	Morgan Hot Springs	SP	Y	40.3837	121.5133	TEH	Lassen	Bliss, 1983	
975	Tuscan Springs	SP	Y	40.2408	122.11	TEH	Red Bluff	Bliss, 1983	

TABLE 3. CALIFORNIA GEOTHERMAL SPRINGS AND WELLS - REFERENCES

ID#	SOURCE NAME	TYPE	PLOT	LAT	LONG	CO.	AREA	REFERENCE	Page(s)
976	Stinking Springs	SP	Y	40.2228	122.7495	TEH	N.W. Tehama Co.	Berkstresser, 1968a	
977	Kern Hot Spring	SP	Y	36.478	118.4047	TUL	E. Tulare Co.	Bliss, 1983	
978	Jordan Hot Spring	SP	Y	36.2292	118.3017	TUL	E. Tulare Co.	Majmundar, 1984	
979	Soda Springs	SP	Y	36.2105	118.1758	TUL	E. Tulare Co.	Waring, 1965	
980	Soda Spring	SP	Y	36.1298	118.8158	TUL	Springville	Bliss, 1983	
981	Ward Spring	SP	Y	36.1167	118.7758	TUL	Springville	Bliss, 1983	
982	California Hot Springs	SP	Y	35.8795	118.677	TUL	California Hot Sps.	Leivas and others, 1981	
983	Well 8N/23W-20H1 S	WW	Y	34.7708	119.3333	VEN	N.W. Ventura Co.	CA. Dept. Water Res., 1973c	
984	Willet Hot Springs	SP	Y	34.582	119.0472	VEN	Sespe Hot Springs	Berkstresser, 1968b	
985	Sespe Hot Springs	SP	Y	34.5947	118.9978	VEN	Sespe Hot Springs	Majmundar, 1984	
986	Vickers Hot Springs	SP	Y	34.5017	119.3458	VEN	Ojai	Berkstresser, 1968b	
987	Wheelers Hot Springs	SP	Y	34.5092	119.2908	VEN	Ojai	Berkstresser, 1968b	
988	Stingleys Hot Springs	SP	Y	34.4995	119.3405	VEN	Ojai	Berkstresser, 1968b	
989	Matilija Hot Springs	SW	Y	34.4842	119.3072	VEN	Ojai	Leivas and others, 1981	

TABLE 4.

CALIFORNIA COMMUNITIES NEAR A GEOTHERMAL RESOURCE WITH A TEMPERATURE OF AT LEAST 50°C

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (m)	Flow (L/min)	TDS (mg/L)	Remarks
Alturas	Modoc	41°29′	120°32′	3,260	86	896	303	1,537	Data for well "AL" 1 supplying heat to local school. Deepest direct use well.
Bieber	Lassen	41°07′	121°08′	600	46	648	750	N/A	Data for well "BV" 3. Nearby Bassett Hot Springs is 79°C.
Big Bend	Shasta	41°01′	121°55′	150	50	250	114	260	Data for well. "ISS" 1 supplying heat to school.
Bishop	Inyo	37°22′	118°24′	3,490	58	Springs	2,000	510	Data for Keough Hot Springs approximately 7 miles south of Bishop.
Bombay Beach	Imperial	33°21′	115°43′	500	54-78	30-177	1,514	2,100-3,800	Many wells in the Hot Mineral Spa geothermal area.
Boyes Hot Springs	Sonoma	38°19′	122°29′	5,937	53	396	757	1,287	Well "SV" 1 at Sonoma Mission Inn.
Brawley	Imperial	32°59′	115°32′	19,450	200-230	2,700-3,900	80-200	28,000	Wells in North Brawley geothermal field, Imperial Valley.
Bridgeport	Mono	38°15′	119°14′	900	51	300	N/A	N/A	Magma Power Co. well.
Calexico	Imperial	32°40′	115°30′	19,200	140-180	600-2,500	5,600-8,500	14,000-20,000	Heber geothermal field, Imperial Valley.
Calipatria	Imperial	33°08′	115°31′	2,700	230-310	900-1,800	1,500-18,000	280,000	At the southeast of the Salton Sea geothermal field.
Calistoga	Napa	38°35′	122°35′	4,500	137	14-244	1,476	660	Well over 100 geothermal wells in Calistoga.

TABLE 4. continued

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (m)	Flow (L/min)	TDS (mg/L)	Remarks
Canby	Modoc	41°27′	120°52′	450	92	Spring	1,250	900	Kelly Hot Spring.
Cedarville	Modoc	41°32′	120°10′	950	69	194	570	N/A	In the Surprise Valley geothermal area. Space heating two schools and hospital.
Clearlake	Lake	38°57′	122°38′	12,100	187	2,385	N/A	N/A	The Clear Lake geothermal region, north of The Geysers. Data for Kettenhofen 1 well.
Colton	San Bernardino	34°04′	117°19′	41,350	51	259	N/A	N/A	Near the City of San Bernardino geothermal area.
Coso Junction	Inyo	36°03′	117°57′	30	200-340	1,460-1,980	750-7,600	4,600	Coso Hot Springs KGRA. Electrical power production.
Costa Mesa	Orange	33°38′	117°55′	97,400	218	2,777	N/A	N/A	Huntington Beach area where hot water is encountered in oil wells.
Desert Hot Springs	Riverside	33°58′	116°30′	12,300	54-70	45-150	10-50	500-1,000	More than 50 hot water wells in the area.
Eagleville	Modoc	41°19′	120°07′	185	59	Springs	500	370	Data for Menlo Baths Hot Springs.
El Centro	Imperial	32°48′	115°34′	32,650	140-180	600-2,500	5,600-8,500	14,000-20,000	Heber geothermal field, Imperial Valley.
Fort Bidwell (and Fort Bidwell Indian Reservation)	Modoc	41°51′	120°09′	230	53	24	N/A	N/A	In the Surprise Valley geothermal area. Data for well 45N/16E-17MI M.
Glamis	Imperial	33°00′	115°05′	N/A	71	207	N/A	N/A	Data is for Smith Brothers Well.

TABLE 4. continued

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (m)	Flow (L/min)	TDS (mg/L)	Remarks
Heber	Imperial	32°44′	115°32′	2,566	140-180	600-2,500	5,600-8,500	14,000-20,000	Heber geothermal field, Imperial Valley.
Hemet	Riverside	33°44′	116°59′	38,000	59	40	N/A	380	Well is 6 miles south of Hemet.
Highland	San Bernardino	34°07′	117°12′	35,650	58	284	18,900	N/A	The City of San Bernardino geothermal area. Data for well "Mill & D" 2.
Huntington Beach	Orange	33°40′	117°59′	182,800	218	2,539	N/A	N/A	Hot water encountered in oil wells.
Johannesburg	Kern	35°22′	117°38′	300	116	236	N/A	N/A	Less than 5 miles west of the Randsburg KGRA. Data for Magma Power Co. well.
Kelseyville	Lake	38°59′	122°50′	2,861	64	149	1,500-1,900	N/A	Geothermal greenhouse/ teaching facility 5 miles southeast of Kelyseville. Data for well "AG Park" 3.
Kings Beach	Placer	39°14′	120°02′	2,796	55	Spring	600	371	Data is for Brockway Hot Springs less than 1 mile to the southeast.
La Quinta	Riverside	33°41′	116°18′	11,950	83	109	290	N/A	Data for well 5S/6E-24N2S and located 3 miles north of La Quinta.
Lake City	Modoc	41°39′	120°13′	190	160	1,508	1,370	N/A	In the Surprise Valley geothermal area. Data for Magma Energy wells.
Lake Elsinore	Riverside	33°40′	117°20′	19,200	54	150-180	1,514	300	Many wells.
Lake Isabella	Kern	35°37′	118°29′	3,323	54	Springs	415	420	Scovern Hot Springs.

TABLE 4. continued

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (m)	Flow (L/min)	TDS (mg/L)	Remarks
Lee Vining	Mono	37°58′	119°07′	900	54	1,220	N/A	N/A	The Mono Basin area.
Litchfield	Lassen	40°23′	120°23′	350	79	434	3,956	N/A	Litchfield geothermal field. Operating geothermal district heating system. Data for well "Johnston" 1.
Lower Lake	Lake	38°55′	122°36′	1,217	52	Spring	50	1,600	The Clear Lake geothermal region, north of The Geysers. Data is for Seigler Springs.
Loyalton	Sierra	39°40′	120°14′	930	51	122	20	N/A	The Sierra Valley geothermal area.
Mammoth Lakes	Mono	37°39′	118°58′	4,900	79	664	N/A	N/A	Geothermal district heating system currently being studied. Data for well "Ohwell" 1.
Markleeville	Alpine	38°42′	119°47′	100	64	Springs	400	1,720	Grovers Hot Springs.
Middletown	Lake	38°45′	122°37′	2,000	73	Springs	250	400	At the southeast of The Geysers geothermal field. Data for Castle Hot Springs.
Newport Beach	Orange	33°37′	117°56′	67,300	218	2,777	N/A	N/A	Huntington Beach area where hot water is encountered in oil wells.
Niland	Imperial	33°14′	115°31′	1,183	230-310	915-1,830	1,500-18,000	up to 300,000	The Salton Sea geothermal field.
Ojai	Ventura	34°27′	119°14′	7,650	51	Springs	27+	1,110	Vickers Hot Springs and Stingleys Hot Springs are approximately 5 miles northwest of Ojai.

TABLE 4. continued

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (m)	Flow (L/min)	TDS (mg/L)	Remarks
Palm Desert	Riverside	33°43′	116°23′	23,750	83	109	290	N/A	Data is for well 5S/6E-24N2S. Located 4 miles east of Palm Desert.
Randsburg	Kern	35°22′	117°39′	280	116	236	N/A	N/A	Less than 5 miles west of the Randsburg KGRA. Data for Magma Power Co. well.
Red Mountain	San Bernardino	35°21′	117°36′	200	116	236	N/A	N/A	Less than 5 miles west of the Randsburg KGRA. Data for Magma Power Co. well.
San Bernardino	San Bernardino	34°07′	117°18′	171,600	58	284	N/A	N/A	The City of San Bernardino has established a geothermal heating district using 58°C water from wells.
San Luis Obispo	San Luis Obispo	35°17′	120°39′	42,600	57	14	N/A	815	Ontario Hot Springs (well) approximately 6 miles south of San Luis Obispo.
Susanville	Lassen	40°25′	120°39′	7,325	79	283	1,325	N/A	Operating geothermal district heating system. Data is for City of Susanville well "Susan" 1.
Temecula	Riverside	33°29′	117°09′	27,400	56	Springs	285	750	Lake Elsinore geothermal area. Data for Murrieta Hot Springs.
Trona	San Bernardino	35°46′	117°22′	1,400	58	183	N/A	53,900	Data for well 24S/43E-9P1 M approximately 6 miles north of Trona in Inyo County.
Twentynine Palms	San Bernardino	34°08′	116°03′	11,950	71	122	N/A	1,000	At least half a dozen known hot water wells (50° to 70°C) near Twentynine Palms.
Warner Springs	San Diego	33°17′	116°38′	30	56	Springs	500	244	About a dozen springs/wells in creek bed.

TABLE 4. continued

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (m)	Flow (L/min)	TDS (mg/L)	Remarks
Westmorland	Imperial	33°02′	115°37′	1,400	N/A	N/A	N/A	N/A	Westmorland geothermal area, Imperial Valley.
Widomar	Riverside	33°36′	117°16′	10,411	52	Springs	N/A	300	Lake Elsinore geothermal area. Data for Elsinore Hot Springs.
Winchester	Riverside	33°42′	117°05′	1,689	49	20	N/A	2,260	Several warm water wells in area.

A BIBLIOGRAPHY OF LOW- AND MODERATE-TEMPERATURE GEOTHERMAL RESOURCES OF CALIFORNIA INCLUDING REFERENCES CITED IN THE TEXT

Allen, E.T., and Day, A.L., 1927, Steam wells and other thermal activity at "The Geysers", California: Carnegie Institution of Washington Publication 378, 106 p.

Axtell, L.H., 1972, Mono Lake geothermal wells abandoned: California Division of Mines and Geology, California Geology, v. 25, no. 3, p. 66-67.

Bacon, C.F., 1978, Known geothermal resources areas in California and areas valuable prospectively for geothermal resources: California Division of Mines and Geology, California Geology, v. 31, no. 7, p. 160-161.

Bader, J.S., and Moyle, W.R., Jr., 1960, Data on water wells and springs in the Yucca Valley - Twentynine Palms area, San Bernardino and Riverside Counties, California: California Department of Water Resources Bulletin 91-2, 163 p.

Barnes, I., Hinkle, M.E., Rapp, J.B., Heropoulos, C., and Vaughn, W.W., 1973, Chemical composition of naturally occurring fluids in relation to mercury deposits in part of north-central California: U.S. Geological Survey Bulletin 1382-A, p. 1-19.

Barnes, I., Kistler, R.W., Mariner, R.H., and Presser, T.S., 1981, Geochemical evidence on the nature of the basement rocks of the Sierra Nevada, California: U.S. Geological Survey Water Supply Paper 2181 .

Barnes, I., O'Neil, J.R., Rapp, J.B., and White, D.E., 1973, Silica-carbonate alteration of serpentine-wall rock alteration in mercury deposits of the California Coast Ranges: Economic Geology, v. 68, p. 388-398.

Berkstresser, C.F., Jr., 1968a, Data for springs in the northern Coast Ranges and Klamath Mountains of California: U.S. Geological Survey Open-File Report 2014-01, 49 p.

Berkstresser, C.F., Jr.,1968b, Data for springs in the southern Coast, Transverse, and Peninsular ranges of California: U.S. Geological Survey Open-File Report 1018-06, 21 p.

Berkstresser, C.F., 1969, Data for springs in the Colorado Desert area of California: U.S. Geological Survey Open-File Report, 13 p.

Bezore, S.P., and Sherburne, R.W., 1985, Monitoring geothermal wells and springs conditions in selected areas of California for earthquake precursors: California Department of Conservation, Division of Mines and Geology Open-File Report 85-12SAC, 56 p.

Bliss, J.D., 1983, Callifornia - basic data for thermal springs and wells as recorded in GEOTHERM: U.S. Geological Survey Open-File Report 83-428 (Parts A, B).

Boylan, R.T., 1982, Mammoth Lakes/Long Valley microearthquake project: California Division of Mines and Geology, California Geology, v. 35, no. 9, p. 187-190.

Brook, C.A., and Server, G.T., Jr., 1982, Geothermal resources of the Transverse Ranges, California, in Fife, D.L., and Minch, J.A., eds., Geology and mineral wealth of the California Transverse Ranges: South Coast Geological Society, p. 274-284.

Brown, J.S., 1923, The Salton Sea region, California, a geographic, geologic, and hydrologic reconnaissance with a guide to desert watering places: U.S. Geological Survey Water-Supply Paper 497, 292 p.

California Department of Water Resources, 1960a, Data on water wells and springs in the Yucca Valley-Twentynine Palms area, San Bernardino and Riverside counties, California: California Department of Water Resources Bulletin 91-2, 164 p.

California Department of Water Resources, 1960b, Geology and geohydrology of the Goose Lake Valley, Modoc County, California: unpublished report.

California Department of Water Resources, 1961a, Geology and geohydrology of Sierra, Mohawk and Humbug valleys, Plumas and Sierra counties, unpublished office report.

California Department of Water Resources, 1961b, Geology and geohydrology of Surprise Valley, Modoc and Lassen counties, California: unpublished report.

California Department of Water Resources, 1963, Data on water wells in Indian Wells Valley area, Inyo, Kern, and San Bernardino Counties, California: California Department of Water Resources Bulletin No. 91-9, 243 p.

California Department of Water Resources, 1964, West Walker River Investigation: California Department of Water Resources Bulletin 64, (final edition), 160 p.

California Department of Water Resources, 1966a, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-64, v. 5.

California Department of Water Resources, 1966b, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-65, v. 5.

California Department of Water Resources, 1967a, Investigation of geothermal waters in the Long Valley area, Mono County: California Department of Water Resources Bulletin 106-2, v. 1, 235 p.

California Department of Water Resources, 1967b, Ground water occurrence and quality, San Diego region: California Department of Water Resources Bulletin 106-2, v. 1, 235 p.

California Department of Water Resources, 1967c, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-66, v. 5.

California Department of Water Resources, 1969a, Water wells and springs in Panamint, Searles, and Knob Valleys, San Bernardino and Inyo Counties, California: California Department of Water Resources Bulletin No. 91-17, 109 p.

California Department of Water Resources, 1969b, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-67, v. 5.

California Department of Water Resources, 1970a, Geothermal wastes and the water resources of the Salton Sea area: California Department of Water Resources Bulletin 143-7, 123 p.

California Department of Water Resources, 1970b, Hydrologic data - north coastal area: California Department of Water Resources Bulletin 130-68, v. 1.

California Department of Water Resources, 1970c, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-68, v. 5.

California Department of Water Resources, 1971, Water wells and springs in the western part of the upper Santa Margarita River watershed, Riverside and San Diego counties, California: California Department of Water Resources Bulletin 91-20, 382 p.

California Department of Water Resources, 1972a, Hydrologic data - central coastal area: California Department of Water Resources Bulletin 130-70, v. 3.

California Department of Water Resources, 1972b, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-70, v. 5.

California Department of Water Resources, 1972c, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-71, v. 5.

California Department of Water Resources, 1973a, Mammoth basin water resources environmental study (final report), 70 p.

California Department of Water Resources, 1973b, Hydrologic data - San Joaquin Valley: California Department of Water Resources Bulletin 130-72, v. 4.

California Department of Water Resources, 1973c, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-72, v. 5.

California Department of Water Resources, 1973d, Preliminary Findings of an investigation of the Dunes thermal anomaly, Imperial Valley, California: California Department of Water Resources and University of California at Riverside, Dunes Report, 48 p.

California Department of Water Resources, 1974a, Hydrologic data - northeastern California: California Department of Water Resources Bulletin 130-73, v. 2.

California Department of Water Resources, 1974b, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-73, v. 5.

California Department of Water Resources, 1976, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-74, v. 5.

California Department of Water Resources, 1977, Hydrologic data - southern California: California Department of Water Resources Bulletin 130-75, v. 5.

California Department of Water Resources, Unpublished data: California Department of Water Resources, water quality files.

California Division of Mines and Geology, 1919, State Mineralogist Report, 1915-1916: Report 15.

California Division of Mines and Geology, 1964, The history trail (Dirty Socks spring): California Division of Mines and Geology, Mineral Information Service, v. 17, no. 11, p. 202.

California Division of Mines and Geology, 1966, Mineral Resources of California: California Division of Mines and Geology Bulletin 191.

California Division of Mines and Geology, 1968, Point Arena hot springs: California Division of Mines and Geology, Mineral Information Service, v. 21, no. 4, p. 61.

California Division of Mines and Geology, 1993, Unpublished water chemistry analyses of Orr Hot Springs, Ukiah, California.

California Division of Oil and Gas, 1979, Geothermal Hot Line, v. 9, n. 3: Publication, No. TR-02.

California University, Riverside, 1972, Data on geothermal wells in Imperial and Coachella Valleys, California: Instituute of Geophysics and Planetary Physics, University of California, Riverside, unpublished well records.

Campion, L.F., 1984, Historical use of geothermal resources at Paso Robles, San Luis Obispo County: California Division of Mines and Geology, California Geology, v. 37, no. 6, p. 119-122.

Campion, L.F., Bacon, C.F., Chapman, R.H., Chase, G.W., and Youngs, L.G., 1984, Geothermal resources investigations of the Sonoma Valley area, Sonoma and Napa Counties, California: California Division of Mines and Geology Open-File Report 84-29SAC, 137 p.

Campion, L.F., Chapman, R.H., Chase, G.W., and Youngs, L.G., 1983, Resource investigation of low- and moderate-temperature geothermal areas in Paso Robles, California: California Division of Mines and Geology Open-File Report 83-11SAC, 51 p.

Cardwell, G.T., 1965, Geology and ground water in Russian River Valley areas and in Round, Laytonville, and Little Lake Valleys, Sonoma and Mendocino Counties, California: U.S. Geological Survey Water Supply Paper 1548, 154 p.

Chapman, R.H., 1975, Geophysical study of the Clear Lake Region, California: California Division of Mines and Geology Special Report 116, 23 p.

Chapman, R.H., and Chase, G.W., 1982a, Geophysical study of the Rohnert Park geothermal prospect, Sonoma County, California: California Division of Mines and Geology Open-File Report 83-07, 29 p.

Chapman, R.H., and Chase, G.W., 1982b, Geophysical study of the Sonoma State Hospital area geothermal prospect, Sonoma County, California: California Division of Mines and Geology Open-File Report 83-08, 36 p.

Chapman, R.H., Chase, G.W., and Taylor, G.C., 1978, Preliminary results of a gravity survey in the Kelley Hot Spring area, Modoc County, California: California Division of Mines and Geology Open-File Report 78-5SAC, 12 P.

Chapman, R.H, Chase, G.W, and Youngs, L.G., 1983, Geophysical study of the Santa Rosa geothermal area, Sonoma County, California: California Division of Mines and Geology Open-File Report 83-09SAC, 36 p.

Chapman, R.H., Youngs, L.G., and Chase, G.W., 1982, Gravity, structure, and geothermal resources of the Calistoga area, Napa and Sonoma Counties: California Division of Mines and Geology, California Geology, v. 35, no. 8, p. 175-183.

Christensen, M.N., Gilbert, C.M., Lajoie, K.R., and Al-Rawi, Y., 1969, Geological-geophysical interpretation of Mono Basin, California-Nevada: Journal of Geophysical Research, 74 p. 5221-5239.

City of San Diego, 1984, Geothermal- aquaculture demonstration project: City of San Diego Planning Department, Public Notice of Proposed Negative Declaration.

Combs, J., 1973, Physical parameters of cores and well temperatures, in Preliminary findings of an investigation of the Dunes thermal anomaly, Imperial Valley, California: California Department of Water Resources and Institute of Geophysics and Planetary Physics, University of California at Riverside, UCR Contribution 73-7, p. 8-11.

Coplen, T.B., 1972, Origin of geothermal waters in the Imperial Valley of southern California, in, Rex, R.W., and others, eds., Cooperative investigation of geothermal resources in the Imperial Valley area and their potential for desalting of water and other purposes: Institute of Geophysics and Planetary Physics, University of California, Riverside, Report to the U.S. Bureau of Reclamation, p. E-1 - E-33.

Coplen, T.B., 1973, Cooperative geochemical investigation of geothermal resources in the Imperial Valley and Yuma areas: Institute of Geophysics and Planetary Physics, University of California, Riverside, Report to the U.S. Bureau of Reclamation, 22 p.

Coplen, T.B., and Kolesar, P., 1974, Investigation of the Dunes geothermal anomaly, Imperial Valley, California; Part 1, Geochemistry of geothermal fluids: Institute of Geophysics and Planetary Physics, University of California, Riverside, 21 p.

Cosner, S.R., and Apps, J.A., 1978, A compilation of data on fluids from geothermal resources in the United States: Earth Science Division, Lawrence Berkeley Laboratory, University of California, Berkeley, LBL No. 5936.

Davisson, M.L., Presser, T.S., and Criss, R.E., 1994, Geochemistry of tectonically expelled fluids from the northern Coast Ranges: Rumsey Hills, California: Geochemica et Cosmochimica Acta, v. 58, no. 7, p. 1,687-1,699.

Day, A.L., and Allen, E.T., 1925, The volcanic activity and hot springs of Lassen Peak: The Carnegie Institute of Washington Publication 360, 190 p.

Donnelly, J.M., Goff, F.E., and Nehring, N.L., 1978, Geothermal potential northeast of Clear Lake, California: Proceedings of geothermal environmental seminar, 1978, Sacramento, California, p. 345-352.

Duffield, W.A., and Fournier, R.O., 1974, Reconnaissance study of the geothermal resources of Modoc County, California: U.S. Geological Survey, Open-File Report 1950, 21 p.

Durham, D.L., 1974, Geology of the southern Salinas Valley area, California: U.S. Geological Survey, Professional Paper 819, 111 p.

Dutcher, L.C., and Garrett, A.A., 1963, Geologic and hydrologic features of the San Bernardino area, California, with special reference to underflow across the San Jacinto fault: U.S. Geological Survey Water-Supply Paper 1419, 114 p.

Dutcher, L.C., Hardt, W.F., and Moyle, W.R., 1972, Preliminary appraisal of ground water in storage with reference to geothermal resources in the Imperial Valley area, California: U.S. Geological Survey Circular 649, 57 P.

Elders, W.A., ed., 1979, Geology and geothermics of the Salton Trough: Geological Society of America Field Trip Guide, Campus Museum Contribution No. 5, University of California, Riverside, California, 109 p.

Engle, R., Gay, T.E., and Rogers, B.L., 1959, Geology and mineral deposits of the Lake Elsinore quadrangle, California: California Division of Mines and Geology Bulletin 146, 154 p.

Faye, R.E., 1973, Ground-water hydrology of northern Napa Valley, California: U.S. Geological Survey Water-Resources Investigations 13-73, 73 p.

Ford, R.S., 1960, Geology and geohydrology of Goose Lake Valley, Modoc County, California: California Department of Water Resources, unpublished report.

Ford, R.S., 1962, Ground water geology of Sierra, Mohawk, and Humbug valleys, Plumas and Sierra counties, California: California Department of Water Resources, unpublished report.

Fournier, R.O., Sorey, M.L., Mariner, R.H., and Truesdell, A.H., 1976, Geochemical prediction of aquifer temperatures in the geothermal system at Long Valley, California: U.S. Geological Survey Open-File Report 76-469, 34 p.

Giessner, F.W., Winters, B.A., and McLean, J.S., 1971, Water wells and springs in the western part of the upper Santa Margarita River watershed, Riverside and San Diego Counties, California: California Department of Water Resources Bulletin 91-20.

Goff, F., Adams, A.I., Trujillo, P.E., Counce, D., and Mansfield, J., 1993, Geochemistry of thermal/mineral waters in the Clear Lake region, California, and implications for hot dry rock geothermal development: Los Alamos National Laboratory LA-12510-HDR, 23 p.

Goff, F., and Janik, C.J., 1993, Gas geochemistry and guide for geothermal features in the Clear Lake region, California, in Rytuba, J.J., ed., Active geothermal systems and gold-mercury deposits in the Sonoma-Clear Lake volcanic field, California: Society of Economic Geologists Guidebook Series, v.16, p. 207-261.

Goff, F.E., Donnelly, J.M., Thompson, J.M., Heron, B.C., Jr., 1977, Geothermal prospecting in the Geysers-Clear Lake area, northern California: Geology, v. 5, p. 509-515.

Gresswell, W.K., 1940, Short report on the geological formations encountered in driving the Mono Craters tunnel-general information on the Mono Craters tunnel: California Journal of Mines and Geology, v. 36, n. 1, p. 199-204.

Grove, G.R., 1982, Geothermal potential - Western and Central Tranverse Ranges, southern California, in Fife, D.L., and Minch, J.A., eds., Geology and mineral wealth of the California Transverse Ranges: South Coast Geological Society, p.291-292.

Haley, J.M., Bengal, V., Labrie, E.J., Ardell, G.C., Clausse, J.L., and Padjen, E.M., 1971, Hydrologic data: 1970, volume III, central coastal area: California Department of Water Resources Bulletin 130-70.

Hamamura, F.T., Zucker, S.A., Carter, C.C., Jr., Gould, M.L., and Hansen, R.G., 1966, Hydrologic data: 1964, volume V, southern California: California Department of Water Resources Bulletin 130-64.

Hammond, P.E., 1983, Volcanic formations along the Klamath River near Copco Lake, Siskiyou County: California Division of Mines and Geology, California Geology, v. 36, no. 5, p. 99-109.

Hannah, J.L., 1975, The potential of low temperature geothermal resources in northern California: California Division of Oil and Gas Report No. TR 15, 31 p.

Hardt, W.F., and French, J.J., 1976, Selected data on water wells, geothermal wells, and oil tests in Imperial Valley, California: U.S. Geological Survey Open-File Report, 251 p.

Herbert, B., 1977, Geochemical evaluation of subsurface temperature from well water in the southwest corner of San Diego County, California: San Diego State University, undergraduate research report, 23 p.

Higgins, C.T., 1981, Reconnaissance of geothermal resources of Los Angeles County, California: California Division of Mines and Geology Open-File Report 82-3, 280 p.

Higgins, C.T., and Chapman, R.H., 1984, Geothermal energy at Long Beach Naval Shipyard and Naval Station and at Seal Beach Naval Weapons Station, California: California Division of Mines and Geology Open-File Report 84-32SAC, 58 p.

Higgins, C.T., and Martin, R.C., 1980, Geothermal resources map of California: California Division of Mines and Geology Geologic Data Map Series, Map No.4, scale 1:750,000.

Higgins, C.T., Chapman, R.H., and Chase, G.W., 1983, Geothermal resources of the Bridgeport-Bodie Hills region, California: California Division of Mines and Geology Open-File Report 83-14SAC, 105 p.

Higgins, C.T., Flynn, T., Chapman, R.H., Trexler, D.T., Chase, G.W., Bacon, C.F., and Ghusn, G., Jr., 1985, Geothermal systems of the Mono Basin-Long Valley region, eastern California and western Nevada: California Division of Mines and Geology Open-File Report 85-19SAC, 159 p.

Hulen, J.B., 1978, Geology and alteration of the Coso geothermal area, Inyo County, California: University of Utah Research Institute, Salt Lake City, Utah, 28 p.

Hunt, J., 1993, The miracle waters - The hot mineral water of the Coachella Valley: Oregon Institute of Technology, Geo-Heat Center Bulletin, March 1993, p. 24-25.

Hunter, C.C., 1992, An investigation of the Hot Mineral Spa Geothermal Area, Riverside and Imperial Counties, California: Geothermal Resources Council Transactions, v. 16, p. 175-182.

Iwamura, T.I., 1961, Geology and geohydrology of Surprise Valley, Modoc and Lassen Counties, California: California Department of Water Resources, unpublished report.

Jennings, C.W., 1975, Fault map of Califorina, with locations of volcanoes, thermal springs, and thermal wells: California Division of Mines and Geology Geologic Data Map Series, Map no. 1, scale 1:750,000.

Jennings, C.W., 1985, An explanatory text to accompany the 1:750,000 scale fault and geologic maps of California: California Division of Mines and Geology Bulletin 201, Appendix B (tabulated list of thermal springs and wells) p. 81-118.

Jet Propulsion Laboratory, 1976, Report on the status of development of geothermal energy resources in California: JPL Document 5040-25 (prepared for California Energy Commission).

Johnson, K.E., 1982, Geothermal resources of the Western Transverse Ranges, California, in Fife, D.L., and Minch, J.A., eds., Geology and mineral wealth of the California Transverse Ranges: South Coast Geological Society, p. 285-290.

Koenig, J.B., 1967, The Salton-Mexicali geothermal province: California Division of Mines and Geology, Mineral Information Service, v. 20, no. 7, p. 75-81.

Koenig, J.B., 1969, Geothermal steam potential of the Mount Lassen area: Geological Society of Sacramento, Annual Field Trip Guidebook, p. 43-52.

Koenig, J.B., 1969, The Geysers geothermal field 1969: California Division of Mines and Geology, Mineral Information Service, v. 22, no. 8, p. 123-128.

Kunkel, F., and Upson, J.E., 1960, Geology and groundwater in the Napa and Sonoma Valleys, Napa and Sonoma Counties, California: U.S. Geological Survey Water Supply Paper 1498, 252 p.

Lachenbruch, A.H., 1968, Preliminary geothermal model of the Sierra Nevada: Journal of Geophysical Research, v. 73, no. 22, p. 6977-6989.

Lachenbruch, A.H., and Sass, J.H., 1980, Heat flow and energetics of the San Andreas fault zones: Journal of Geophysical Research, v. 85, n. B11, p. 6185-6222.

Lachenbruch, A.H., Sorey, M.L., Lewis, R.E., and Sass, J.H., 1976, The near-surface hydrothermal regime of Long Valley caldera: Journal of Geophysical Research, v. 81, no. 5, p. 763-768.

Lee, K., 1969, Infrared exploration for shoreline springs-A contribution to hydrogeology of Mono basin, California: Stanford University, Ph.D. Thesis.

Leivas, E., and Bacon, C.F., 1982, Reconnaissance geothermal resource assessment of another 40 sites in California: California Division of Mines and Geology Open-File Report 83-12SAC, 218 p.

Leivas, E., Martin, R.C., Higgins, C.T., and Bezore, S.P., 1981, Reconnaissance geothermal resource assessment of 40 sites in California: California Department of Conservation, Division of Mines and Geology Open-File Report 82-4SAC, 243p.

Lewis, R.E., 1974, Data on wells, springs, and thermal springs in Long Valley, Mono County, California: U.S. Geological Survey Open-File Report, 52 p.

Majmundar, H.H., 1982, Geochemical study of geothermal waters in Calistoga, Napa County, California: California Division of Mines and Geology, unpublished report.

Majmumdar, H.H., 1983, Technical map of the geothermal resources of California: California Division of Mines and Geology Geologic Data Map Series, Map no. 5, scale 1:750,000.

Majmundar, H.H., 1984, Text for technical map of the geothermal resources of California geologic data map no. 5: California Division of Mines and Geology, 45 p.

Mariner, R.H., 1982, Unpublished data for thermal and mineral springs and wells: U.S. Geological Survey, Menlo Park, California.

Mariner, R.H., and Willey, L.M., 1976, Geochemistry of thermal waters in Long Valley, Mono County, California: Journal of Geophysical Research, v. 81, n. 5, p. 792-800.

Mariner, R.H., Presser, T.S., and Evans, W.C., 1976, Chemical composition data and calculated aquifer temperature for selected wells and springs of Honey Lake Valley, California: U.S. Geological Survey Open-File Report 76-783, 10 p.

Mariner, R.H., Presser, T.S., and Evans, W.C., 1977, Hot Springs of the central Sierra Nevada, California: U.S. Geological Survey Open-File Report 77-559, 27 p.

Martin, R.C., and Welday, E.E., 1977, Lake bottom thermal gradient survey at Clear Lake and Mono Lake, California: Geothermal Resources Council Transaction, v. 1, p. 201-203.

Mase, C.W., Sass, J.H., and Lachenbruch, A.H., 1980, Near-surface hydrothermal region of the Lassen "Known Geothermal Resources Area," California: U.S. Geological Survey Open-File Report 80-1230, 31 p.

Mason, J.F., 1948, Geology of the Tecopa area, southeastern California: Geological Society of America Bulletin 59, p. 333-352.

McKeivey, C.L., and Ramstedt, E., 1969, Hydrologic data: 1967, volume V, southern California: California Department of Water Resources Bulletin 130-67.

McKelvey, C.L., and Ramstedt, E., 1970, Hydrologic data: volume V, southern California: California Department of Water Resources Bulletin 130-68.

McKelvey, C.L., Hewett, B.E., Jr., Roos, A., and Kelly, J.M., 1968, Hydrologic data: 1966, volume V, southern California: California Department of Water Resources Bulletin 130-66.

McLaughlin, R.J., and Donnelly-Nolan, J.M., eds., 1981, Research in The Geysers-Clear Lake geothermal area, northern California: U.S. Geological Survey Professional Paper 1141, 259 p.

McLaughlin, R.J., Donnelly, J.M., Hearn, B.C., Jr., and Goff, F.E., 1977, Field trip guide to The Geysers-Clear Lake area: Cordilleran Section of the Geological Society of America, 56 p.

McNitt, J.R., 1960, Geothermal power: California Division of Mines and Geology, Mineral Information Service, v. 13, no. 3, p. 1-9.

McNitt, J.R., 1963, Exploration and development of geothermal power in California: California Division of Mines and Geology Special Report 75, 45 p.

Mendenhall, W.C., 1905, The hydrology of San Bernardino Valley, California: U.S. Geological Survey Water-Supply and Irrigation Paper No. 142, 124 p.

Metzger, D.G., Loeltz, O.J., and Ireland, B., 1973, Geohydrology of the Parker-Blythe-Cibola areas, Arizona and California: U.S. Geological Survey Professional Paper 486-G, 130 p.

Miller, R.R., Wiegand, J.W., and Larson, T.C., 1981, Geothermal resource assessment and policy development for Rohr Industries: California Energy Commission, Final Report, 63 p.

Mohorich, L.M., 1980, Geothermal resources of the California Desert - a summary review, in Fife, D.L., and Brown, A.R., eds., Geology and mineral wealth of the California Desert: South Coast Geological Society, p. 171-189.

Morton, P.K., 1977, Geology and mineral resources of Imperial County, California: California Division of Mines and Geology County Report 7, 104 p.

Moyle, W.R., Jr., 1969, Water wells and springs in Panamint, Searles, and Knob Valleys, San Bernardino and Inyo Counties, California: California Department of Water Resources Bulletin 91-17, 110 p.

Moyle, W.R., Jr., 1974, Temperature and chemical data for selected thermal wells and springs in southeastern California: U.S. Geological Survey Water Resources Investigations 33-73, 12 p.

Moyle, W.R., Jr., 1977, Summary of basic hydrologic data collected at Coso Hot Springs, Inyo County, California: U.S. Geological Survey Open-File Report 77-485, 93 p.

Muffler, L.J.P., ed., 1979, Assessment of geothermal resources of the United States—1978: U.S. Geological Survey Circular 790.

Muffler, L.J.P. and Williams, D.L., 1976, Geothermal investigations of the U.S. Geological Survey in Long Valley, California, 1972-1973: Journal of Geophysical Research, 81, n. 5, p. 721-724.

Murray, K.S., 1986, Calistoga geothermal resource assessment: California Energy Commission, Staff Report, 76 p.

Murray, K.S., Jonas, M.L., and Lopez, C.A., 1985, Geochemical exploration of the Calistoga geothermal resource area, Napa Valley, California: Geothermal Resources Council Transactions, v. 9, Part 1, p. 339-344.

Nishimura, G.H., Hassan, A.A., Werner, S.L., Brown, R., Goodridge, J.D., Rodriquez, J.R., and Arce, A.G., 1973, Mammoth Basin water resources environmental study, final report: California Department of Water Resources, unpublished report.

Pampeyan, E.H., 1963, Geology and mineral deposits of Mt. Diablo, Contra Costa County, California: California Division of Mines and Geology Special Report 80 31 p.

Peters, E.K., 1991, Gold-bearing hot spring systems of the northern Coast Ranges, California: Economic Geology, v. 86, p. 1519-1528.

Poeschel, K.R., Rowe, T.G., and Blodgett, J.C., 1986, Water-resources data for the Mount Shasta area, northern California: U.S. Geological Survey Open-File Report 86-65, 73p.

Presser, T.S., Evans, W.C., White, L.D., Mariner, R.H., and Kistler, R.W., 1981, Chemical and isotopic compositions of soda spring waters and gases, Sierre Nevada, California: U.S. Geological Survey Open-File Report 81-133, 7 p.

Proctor, R.J., 1968, Geology of the Desert Hot Springs - Upper Coachella Valley area, California: California Division of Mines and Geology Special Report 94, 50 p.

Reed, M.J., 1975, Chemistry of thermal water in selected geothermal areas of California: California Division of Oil and Gas Technical Report TR-15, 31 p.

Reed, M.J., Mariner, R.H., Brook, C.A., and Sorey, M.L., 1983, Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U.S. Geological Survey Circular 892: U.S. Geological Survey Open-File Report 83-250, 129 p.

Rex, R.W., 1972, Computer print-out list of data on geothermal wells in Imperial and Cochella valleys: unpublished report.

Rinehart, C.D., Ross, D.C. and Pakiser, L.C., 1964, Geology and mineral deposits of the Mt. Morrison quadrangle, Sierra Nevada, California, with a section on a gravity study of Long Volley: U.S. Geological Survey, Professional Paper 385, 106 p.

Schaal, R. B., Criss, R.E., and Davisson, M.L., 1994, Saltwater springs atop the Rumsey Hills, California: California Department of Conservation, Division of Mines and Geology, California Geology, v. 47, no.3, p. 67-74.

Scott, R.C., and Barker, F.B., 1962, Data on uranium and radium in the ground water of the United States, 1954 to 1957: U.S. Geological Survey Professional Paper 426, 115 p.

Sims, J.D., and Rymer, M.J., 1976, Map of gaseous springs and associated faults in Clear Lake, California: U.S. Geological Survey Miscellaneous Field Studies Map MF-721, scale 1:48.000.

Smith, G.I., 1964, Geology and volcanic petrology of the Lava Mountains, Son Bernardino County, California: U.S. Geological Survey Professional Paper 457, 97 p.

Sorey, M.L., and Lewis, R.E., 1976, Convective heat flow from hot springs in the Long Valley Caldera, Mono County, California: Journal of Geophysical Research, v. 81, n. 5, p. 785-791.

Sorey, M.L., Lewis, R.E., and Olmsted, F.H., 1978, The hydrothermal system of Long Valley caldera, California: U.S. Geological Survey Professional Paper 1044-A, 60 P.

Svitek, J.F., and Bader, J.S., 1973, Data for selected water wells, Calistoga quadrangle, Napa County, California: U.S. Geological Survey Open-File Report, 36 p.

Taweel, E.E., Jr., Vaughn, L., Balsys, J., McKelvey, C.L., and Duley, E.F., 1973, Hydrologic data: 1972, volume V, southern California: California Department of Water Resources Bulletin 130-72.

Taweel, E.E., Jr., Vaughn, L., Balsys, J., McKelvey, C.L., and Duley, E.F., 1974, Hydrologic data: 1973, volume V, southern California: California Department of Water Resources Bulletin 130-73, 483 p.

Taylor, G.C., 1981, Calistoga geothermal resource area: California Division of Mines and Geology, California Geology, v. 34, no. 10, p. 208-217.

Taylor, G.C., Bacon, C.F., Chapman, R.H., Chase, G.W., and Majmumdar, H.H., 1981, Drilling addendum to resource assessment of low- and moderate- temperature geothermal waters in Calistoga, Napa County, California: California Division of Mines and Geology Addendum to Open-File Report 81-13SAC, 73 p.

Thomas, R.P., Chapman, R.H., Dykstra, H., and Stockton, A.D., 1981, A reservoir assessment of the Geysers Geothermal field: California Division of Oil and Gas Publication no. TR27, 60 p.

Thompson, D.G., 1929, The Mojave Desert region, California: U.S. Geological Survey Water Supply Paper 578.

Thompson, J.M., Goff, F., and Donnelly-Nolan, J.M., 1981, Chemical analyses of waters from springs and wells in the Clear Lake volcanic area: U.S. Geological Survey Professional Paper 1141, p. 183-191.

Thompson, J.M., Goff, F.E., and Donnelly, J.M., 1978, Chemical analyses of waters from springs and wells from the Clear Lake volcanic area, northern California: U.S. Geological Survey Open-File Report 78-425, 12 p.

Thompson, J.M., Mariner, R.H., White, L.D., Presser, T.S., Evans, W.C., 1992, Thermal waters along the Konocti Bay fault zone, Lake County, California: Journal of Volcanology and Geothermal Research, v. 53, p. 167-183.

Torrance Daily Breeze Newspaper, January 23, 1970.

Tucker, W.B., and Sampson, R.J., 1945, Mineral resources of Riverside County: California Division of Mines, California Journal of Mines and Geology, v. 41, no. 3, p. 178 [Highland Springs].

U.S. Bureau of Reclamation, 1976, Susanville and north Honey Lake Valley area, California, Water quality analysis, infrared geothermal reservoir temperatures and reservoir evaluation test: U.S. Bureau of Reclamation Report.

U.S. Bureau of Reclamation, 1982, Concluding report on the evaluation of the Susanville and Litchfield geothermal resources: U.S. Bureau of Reciamation, Susanville Geothermal Investigation Report, 41 p.

Vichy Springs, 1990, Unpublished water analysis: Alpha Analytical Laboratories Inc., Ukiah, California, 7 p.

Waring, G.A., 1915, Springs of California: U.S. Geological Survey Water Supply Paper 338, 410 p.

Waring, G.A., 1919, Ground water in the San Jacinto and Temecula Basins, California: U.S. Geological Survey Water Supply Paper 429, 113 p.

Waring, G.A., 1965, Thermal springs of the United States and other countries of the world — a summary: U.S. Geological Survey Professional Paper 492, 383 p.

Weismeyer, A.L., Jr., 1967, A geologic and hydrologic investigation of the Frink Spring - Hot Mineral Spa area, Imperial and Riverside Counties, California: University of Southern California, undergraduate paper.

Werner, C.A., Mullnix, L.A., and Angel, J., 1965, Ground water quality, appendix E, Hydrologic data: 1963, volume II, northeastern California: California Department of Water Resources Bulletin 130-63, p. DE147-DE195.

Werner, S.L., and Mukae, M., 1967, Ground water occurrence and quality: San Diego region: California Department of Water Resources Bulletin 106-2, v. 1, 235 p.

Werner, S.L., and Olsen, L.J., 1970, Geothermal wastes and the water resources of the Salton Sea area: California Department of Water Resources Bulletin 143-7, 123 p.

White, D.E., and McNitt, J.R., 1966, Geothermal energy, in Mineral Resources of California: California Division Of Mines and Geology Bulletin 191, p. 174-179.

White, D.E., Barnes, I., and O'Neil, J.R., 1973, Thermal and mineral waters of non-meteoric orgin, California Coast Ranges: Geological Society of America Bulletin, v. 80, p. 935-950.

White, D.E., Hem, J.D., and Waring, G.A., 1963, Chemical composition of subsurface waters, in Fleischer, M., ed., Data of geochemistry, 6th edition: U.S. Geological Survey Professional Paper 440-F, 67 p.

White, D., personal file, cf. Geothermal File: U.S. Geological Survey, GEOTHERM Information System.

Wiegand, J.W., 1970, Evidence of a San Diego Bay-Tijuana fault: Association of Engineering Geologists Bulletin, v. VII, no. 1-2, p. 107-121.

Wiegand, J.W., 1982, Geothermal energy in San Diego, An overview: Oregon Institute of Technology, Geo-Heat Center Quarterly Bulletin, v. 6, no. 4, p. 26-29.

Willets, D.B., 1954, Ground water occurrence and quality, Colorado River Basin region: California Department of Water Resources Water Quality Investigations Report 4, 59 p.

Williams, H., 1949, Geology of the Macdoel quadrangle: California Division of Mines and Geology Bulletin 151, 78 p.

Wood, P.R., 1960, Geology and ground water features of the Butte Valley region, Siskiyou County, California: U.S. Geological Survey Water Supply Paper 1491.

Wood, P.R., and Davis, G.H., 1959, Ground water conditions in the Avenol-McKittrick area, Kings and Kern counties, California: U.S. Geological Survey Water Supply Paper 1457.

Woods, M.C., 1974, Geothermal activity in Surprise Valley: California Division of Mines and Geology, California Geology, v. 27, no. 12, p. 271-273.

Youngs, L.G., 1984, Reconnaissance of geothermal resources near U.S. Naval Facilities in the San Diego area, California: California Division of Mines and Geology Open-File Report 84-33SAC, 45 p.

Youngs, L.G., and Higgins, C.T., 1981, Historical use of moderate-temperature geothermal resource, Calistoga, Napa County, California: California Division of Mines and Geology, California Geology, v. 34, no. 4, p. 67-72.

Youngs, L.G., Bacon, C.F., Chapman, R.H., Chase, G.W., Higgins, C.T., Majmundar, H.H., and Taylor, G.C., 1980, Resource assessment of low- and moderate-temperature geothermal waters in Calistoga, Napa County, California: California Division of Mines and Geology Open-File Report 81-13SAC, 168 p.

Youngs, L.G., Bezore, S.P., Chapman, R.H., and Chase, G.W., 1981, Resource investigation of low- and moderate-temperature geothermal areas in San Bernardino, California: California Division of Mines and Geology Open-File Report 82-11SAC, 242 p.

Youngs, L.G., Campion, L.F., Chapman, R.H., Higgins, C.T., Leivas, E., Chase, G.W., and Bezore, S.P., 1983, Geothermal resources of the northern Sonoma Valley area, California: California Division of Mines and Geology Open-File Report 83-27SAC, 106 p.

Youngs, L.G., Chapman, R.H., and Chase G.W., 1985a, Geophysical investigations and geothermal resources, Santa Rosa - Sonoma area, Sonoma and Napa Counties, California: California Division of Mines and Geology, California Geology, v. 38, no. 11, p. 243-253.

Youngs, L.G., Chapman, R.H., and Chase, G.W., 1985b, Complete Bouguer gravity and aero-magnetic maps with geology and thermal wells and springs of the Santa Rosa - Sonoma area, Sonoma and Napa Counties, California: California Division of Mines and Geology Open-File Report 85-14SAC, 8 p.

Youngs, L.G., Chapman, R.H., Chase, G.W., Bezore, S.P., and Majmundar, H.H., 1983, Investigation of low-temperature geothermal resources in the Sonoma Valley area, California: California Division of Mines and Geology Open-File Report 83-13SAC, 103 p.

Youngs, L.G., Kishi, E.H., and Campion, L.F., 1983, Preliminary report on the low-temperature geothermal resources of the Big Valley area, Lake County, California: California Divison of Mines and Geology Open-File Report 83-30SAC, 74 p.

APPENDIX A

CALIFORNIA
STANDARD COUNTY
NAME ABBREVIATIONS

ALPHA CODE	COUNTY NAME
ALA	Alameda
ALP	Alpine
AMA	Amador
BUT	Butte
CAL	Calaveras
CCA	Contra Costa
COL	Colusa
DNT	Del Norte
ELD	El Dorado
FRE	Fresno
GLE	Glenn
HUM	Humboldt
IMP	Imperial
INY	Inyo
KNG	Kings
KRN	Kern
LAK	Lake
LAS	Lassen
LAX	Los Angeles
MAD	Madera
MAR	Marin
MEN	Mendocino
MER	Merced
MNT	Monterey
MOD	Modoc
MON	Mono
MPA	Mariposa
NAP	Napa
NEV	Nevada
ORA	Orange
PLA	Placer
PLU	Plumas
RIV	Riverside
SAC	Sacramento
SBA	Santa Barbara
SBD	San Bernardino
SBT	San Benito
SCL	Santa Clara
SCR	Santa Cruz
SDG	San Diego
SFO	San Francisco
SHA	Shasta
SIE	Sierra
SIS	Siskiyou
SJQ	San Joaquin
SLO	San Luis Obispo
SMT	San Mateo
SOL	Solano
SON	Sonoma
STA	Stanislaus
SUT	Sutter
TEH	Tehama
TRI	Trinity
TUL	Tulare
TUO	Tuolumne
VEN	Ventura
YOL	Yolo
YUB	Yuba

APPENDIX B

BOUNDARIES OF THE CALIFORNIA KNOWN GEOTHERMAL RESOURCE AREAS (K.G.R.A.) EXPRESSED IN LATITUDE, LONGITUDE COORDINATES

BOUNDARIES OF THE CALIFORNIA KNOWN GEOTHERMAL RESOURCE AREAS (K.G.R.A.) EXPRESSED IN LATITUDE, LONGITUDE COORDINATES

1994

by Leslie G. Youngs

INTRODUCTION

The Department of Conservation, Division of Mines and Geology (DMG) has digitized the boundaries of the nineteen Known Geothermal Resource Areas (K.G.R.A.) of California as coordinates of latitude, longitude. The data can be used to generate polygons representing the boundaries of the K.G.R.A.'s on small scale maps. Sets of the coordinate pairs that were digitized around the mapped boundary for each K.G.R.A. are in separate ASCII character files as well as LOTUS 123 worksheet files. The files are on the enclosed personal computer diskette. The names of the files as well as the names of the maps from which the boundaries were digitized are listed in Table 1.

METHOD

The Bureau of Land Management (BLM) supplied the legal descriptions as well as maps at various scales of the boundaries of the K.G.R.A.'s in California (Bureau of Land Management, 1988). The boundaries were manually transferred to U.S.G.S. and BLM published paper maps generally at 1:100,000 scale. The boundary lines were then traced on a digitizing tablet in the clockwise direction around each polygon using the U.S.G.S. computer software GSDIG (Selner and others, 1990). At a minimum, points (coordinate pairs of latitude, longitude) were

recorded at each section corner around each K.G.R.A. boundary. Additional points were recorded where the boundary side of a section was not a straight line, where partial sections comprised portions of a boundary, and where other features such as lake shores comprised part of a K.G.R.A. boundary. The files were edited using the LOTUS 123 spreadsheet software. The enclosed personal computer diskette contains both the ASCII character file with file extension name .PRN and the LOTUS 123 worksheet file with file extension name .WK1 of coordinates for each K.G.R.A. boundary. Note that the first coordinate pair of latitude, longitude recorded for each boundary was copied to the end of each file to complete closure of the polygon. Intergraph MicroStation software was used to generate the K.G.R.A. boundary polygons from the digitized data. The plots of the California K.G.R.A. boundary polygons are shown on pages 5-23.

Inquires concerning the availability of the K.G.R.A. boundary data files or other related comments should be made to:

Mr. Leslie G. Youngs
Department of Conservation
Division of Mines and Geology
801 K Street, MS 08-38
Sacramento, CA 95814-3531
Phone (916)322-8078

REFERENCES

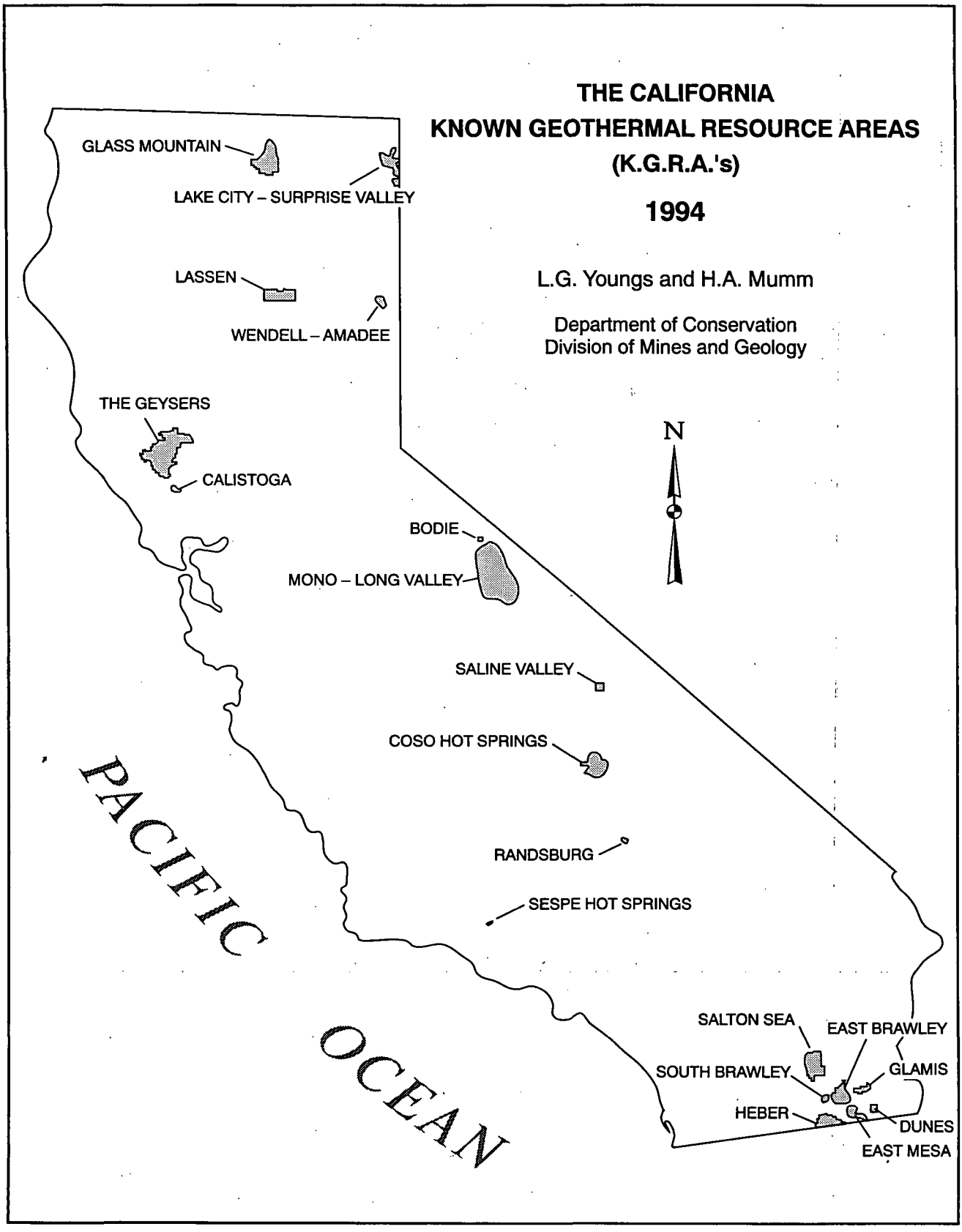
Bureau of Land Management, 1988, Known geothermal resource areas (K.G.R.A.) in California: Department of Interior, unpublished report, 25 p.

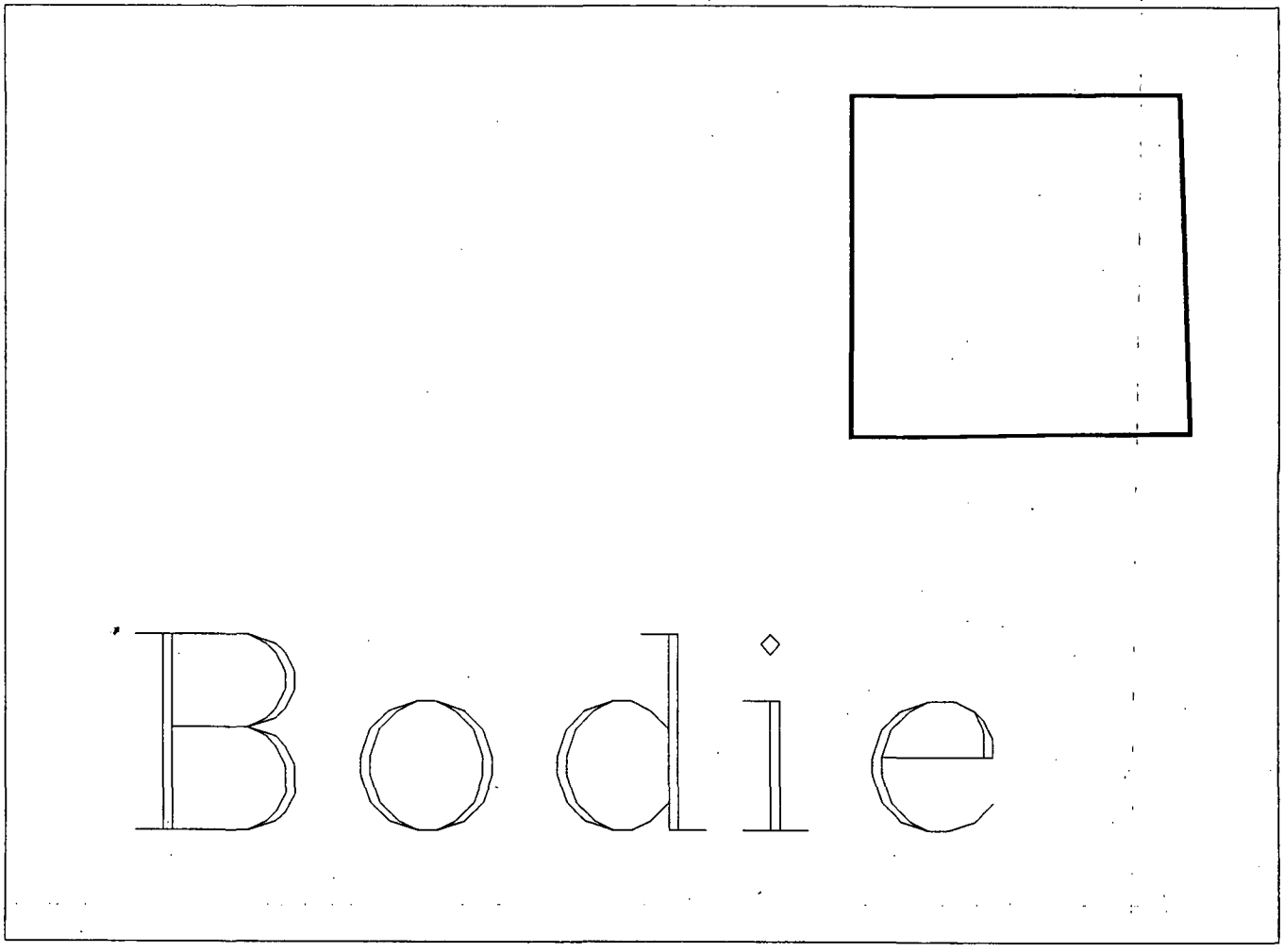
Selner, G.I., Smith, C.L., and Taylor, R.B., 1990, GSDIG version 3.0, a program to determine latitude, longitude coordinates or x,y coordinates using a microcomputer (IBM PC or compatible) and digitizer: U.S. Geological Survey Open-File Report 90-80, 26 p.

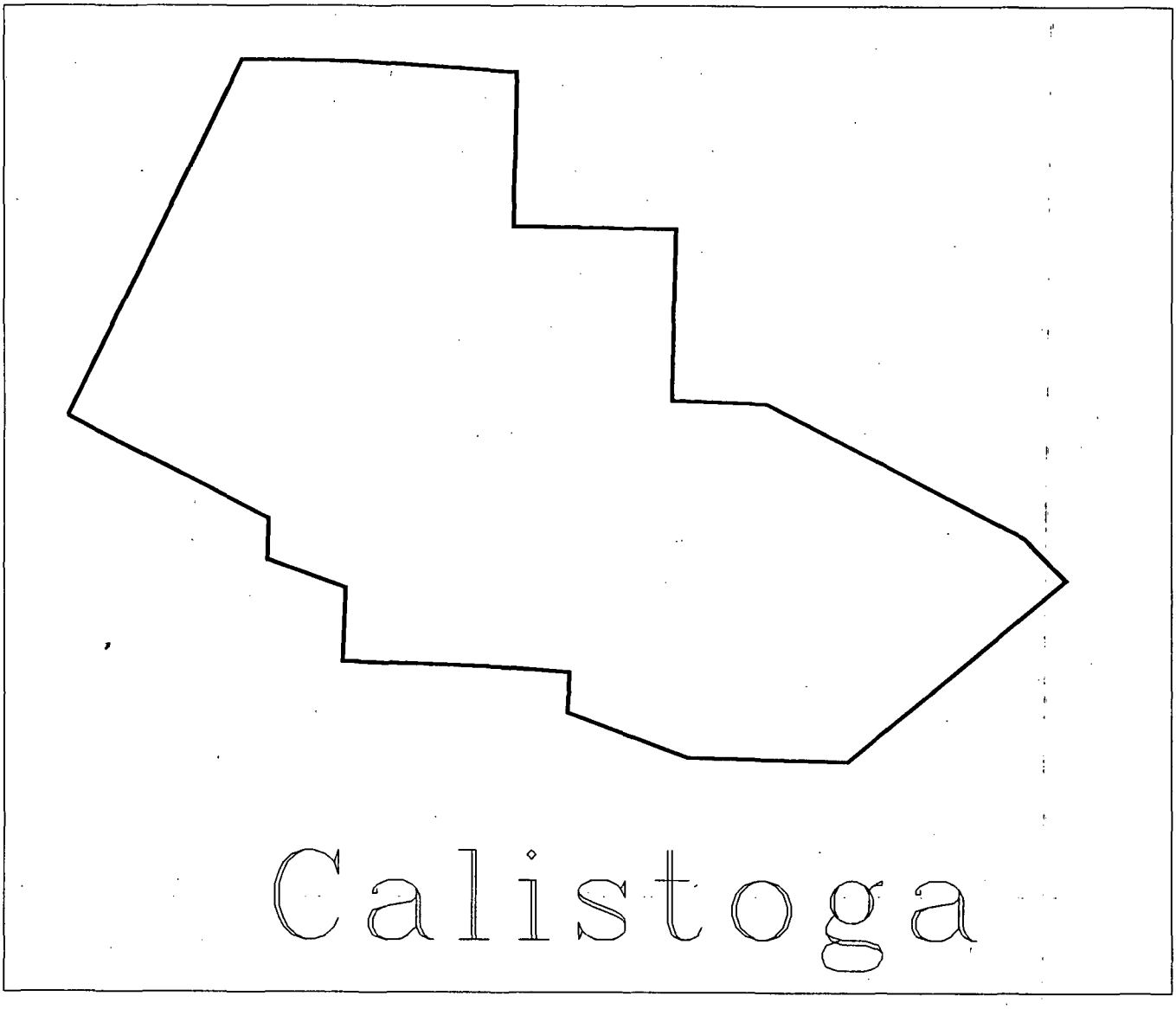
TABLE 1. California K.G.R.A. boundary file names and the names of the maps from which the boundaries were digitized.

K.G.R.A.	FILE NAME	RECORDS	MAP SCALE	MAP NAME	SOURCE
Bodie	BODIE.PRN	5	1:65,000	Bodie	USGS
Calistoga	CALISTOG.PRN	25	1:24,000	Calistoga & Mark West Springs	USGS
Coso Hot Springs	COSOHOT.PRN	76	1:100,000	Darwin Hills & Ridgecrest	BLM
Dunes	DUNES.PRN	14	1:24,000	Glamis S.E. & Cactus	USGS
East Brawley	EBRAWLEY.PRN	62	1:100,000	Salton Sea & El Centro	BLM
East Mesa	EASTMESA.PRN	62	1:100,000	El Centro	BLM
The Geysers	GEYSERS.PRN	173	1:100,000	Lakeport, Healdsburg, & Point Arena	BLM USGS
Glamis	GLAMIS.PRN	35	1:100,000	Salton Sea & El Centro	BLM
Glass Mountain	GLASSMTN.PRN	85	1:100,000	Tulelake & McArthur	USGS
Heber	HEBER.PRN	63	1:100,000	El Centro	BLM
Lake City-Surprise	LAKECTY1.PRN	143	1:100,000	Cedarville & Alturas	BLM
Valley	LAKECTY2.PRN	64	1:100,000	Alturas	BLM
Lassen	LASSEN.PRN	74	1:100,000	Lake Almanor	BLM
Mono-Long Valley	MONOLONG.PRN	136	1:100,000	Yosemite Valley, Benton Range, Bridgeport, & Excelsior Mts.	BLM USGS
Randsburg	RANDSBUR.PRN	27	1:100,000	Cuddeback Lake	BLM
Saline Valley	SALINVLY.PRN	11	1:100,000	Saline Valley	USGS
Salton Sea	SALTON.PRN	60	1:100,000	Salton Sea	BLM
Sespe Hot Springs	SESPEHOT.PRN	15	1:24,000	Topatopa Mountains & Devils Heart Peak	USGS
South Brawley	SBRAWLEY.PRN	25	1:100,000	El Centro	BLM
Wendel-Amedee	WENAMDEE.PRN	26	1:100,000	Susanville	BLM

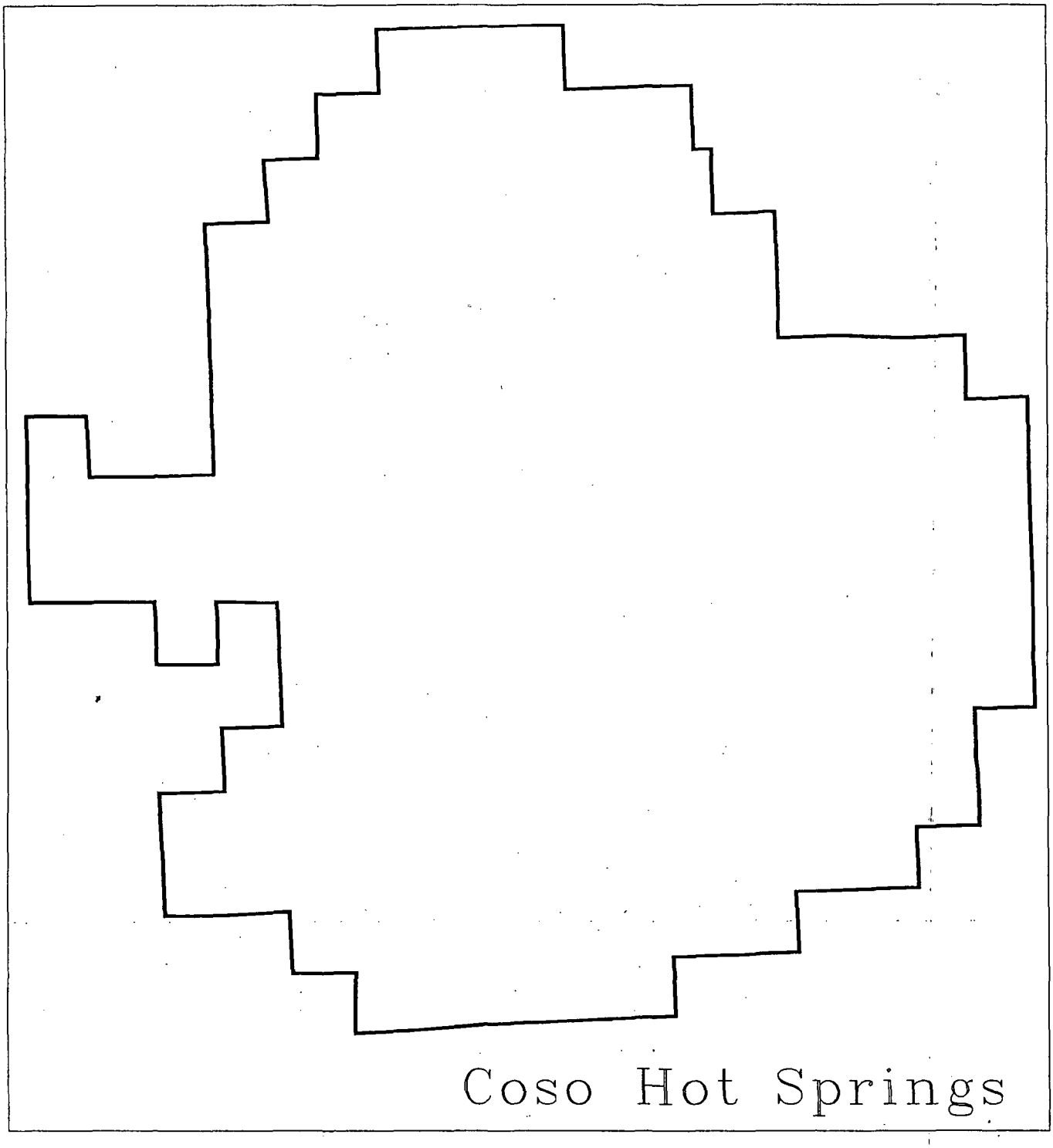
FIGURE 1


THE CALIFORNIA
KNOWN GEOTHERMAL RESOURCE AREAS
(K.G.R.A.'s)
1994
L.G. Youngs and H.A. Mumm
Department of Conservation
Division of Mines and Geology
N
GLASS MOUNTAIN
LAKE CITY – SURPRISE VALLEY
LASSEN
WENDELL – AMADEE
THE GEYSERS
CALISTOGA
BODIE
MONO – LONG VALLEY
SALINE VALLEY
COSO HOT SPRINGS
RANDSBURG
SESPE HOT SPRINGS
PACIFIC OCEAN
SALTON SEA
EAST BRAWLEY
SOUTH BRAWLEY
GLAMIS
HEBER
DUNES
EAST MESA

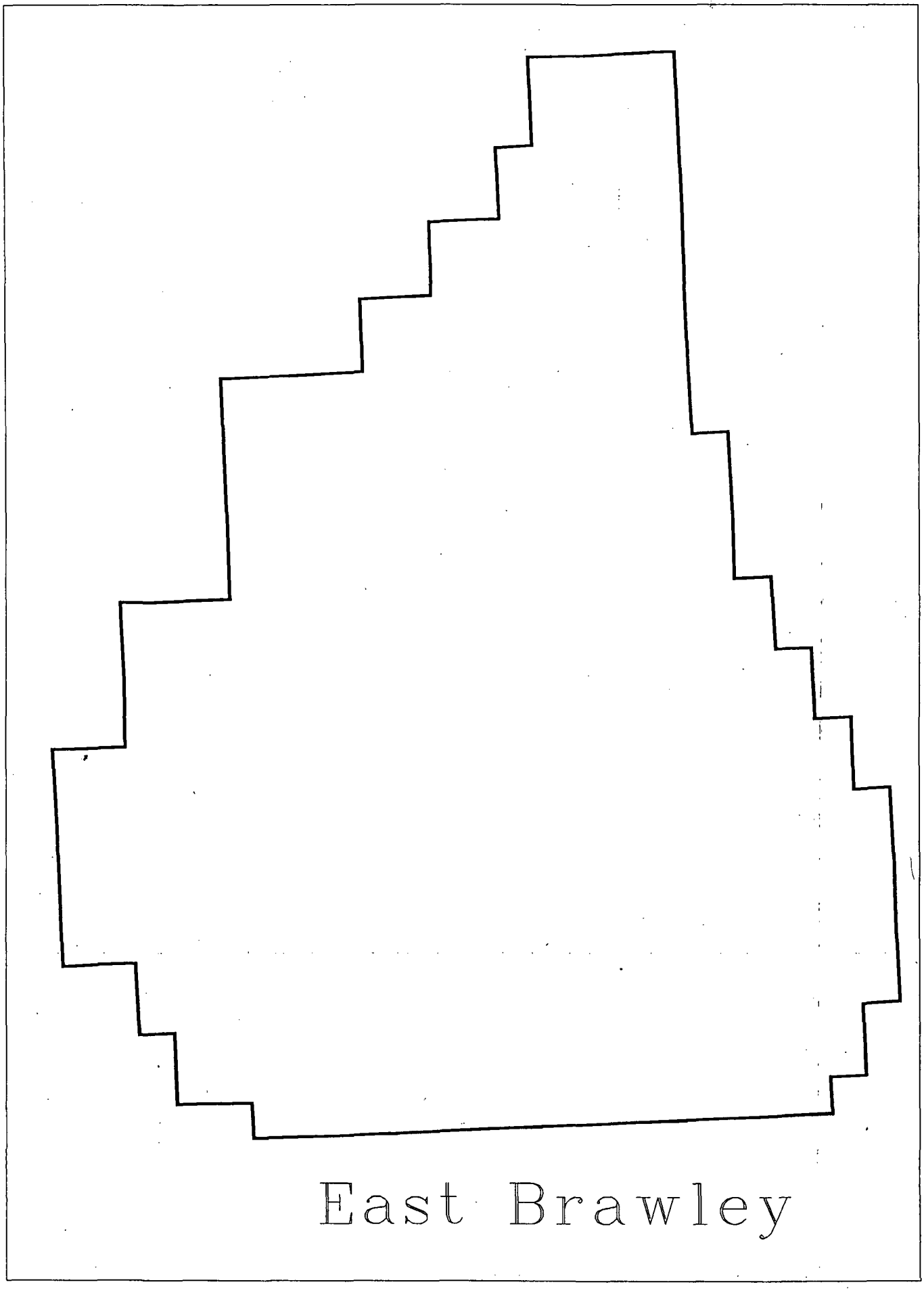

Bodie
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 08:57:04



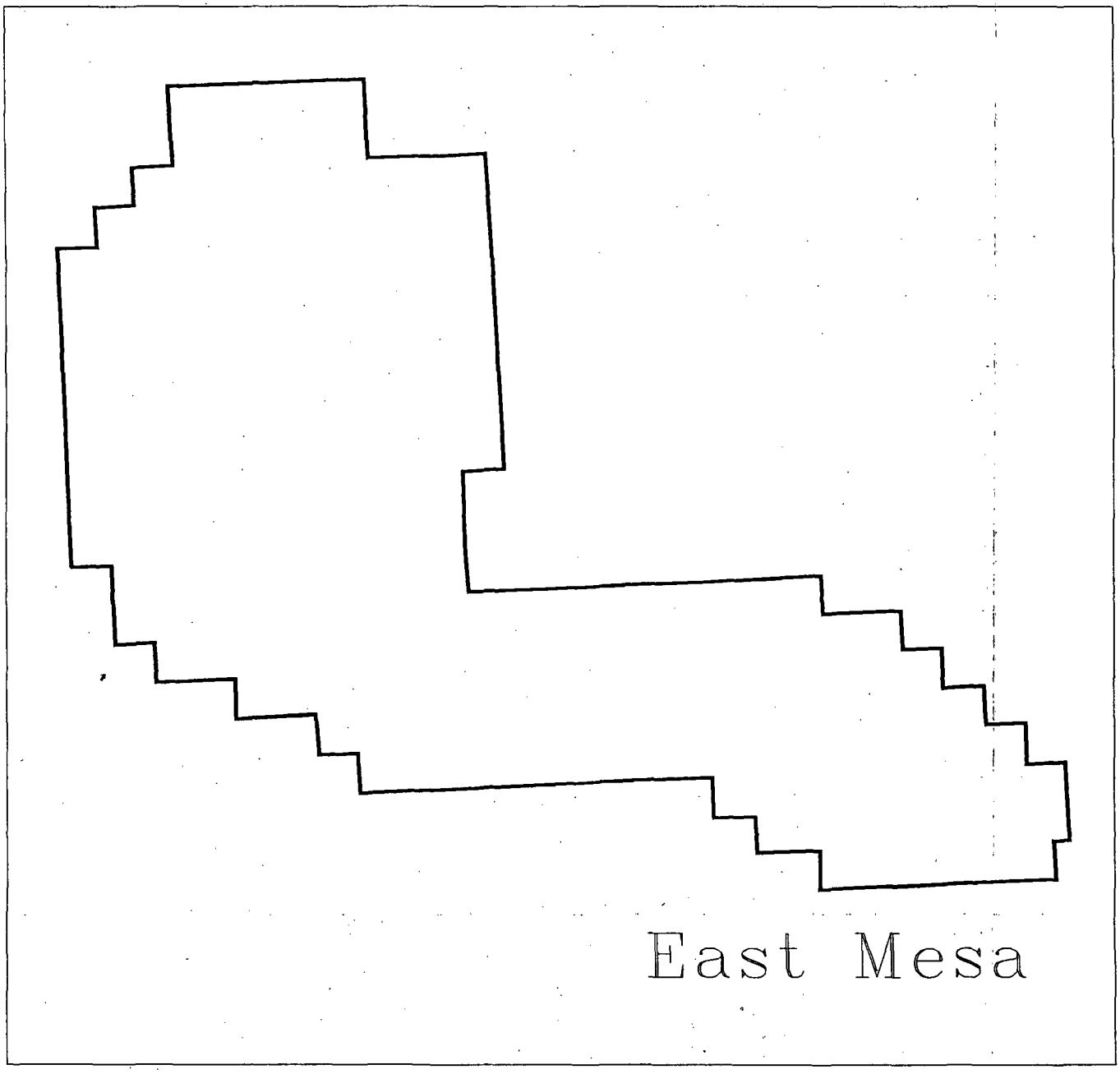
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 08:56:18

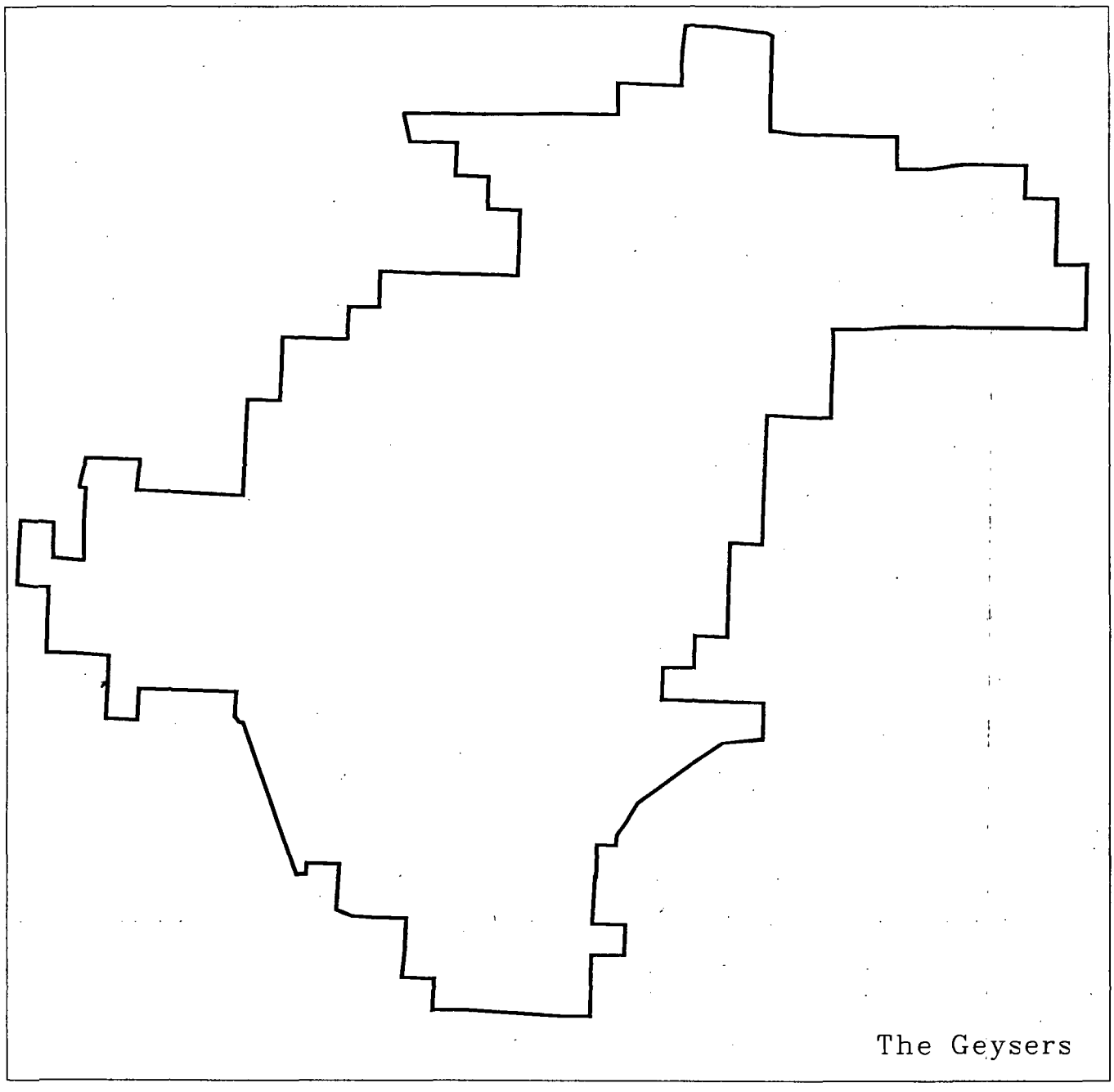

Coso Hot Springs
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:00:16

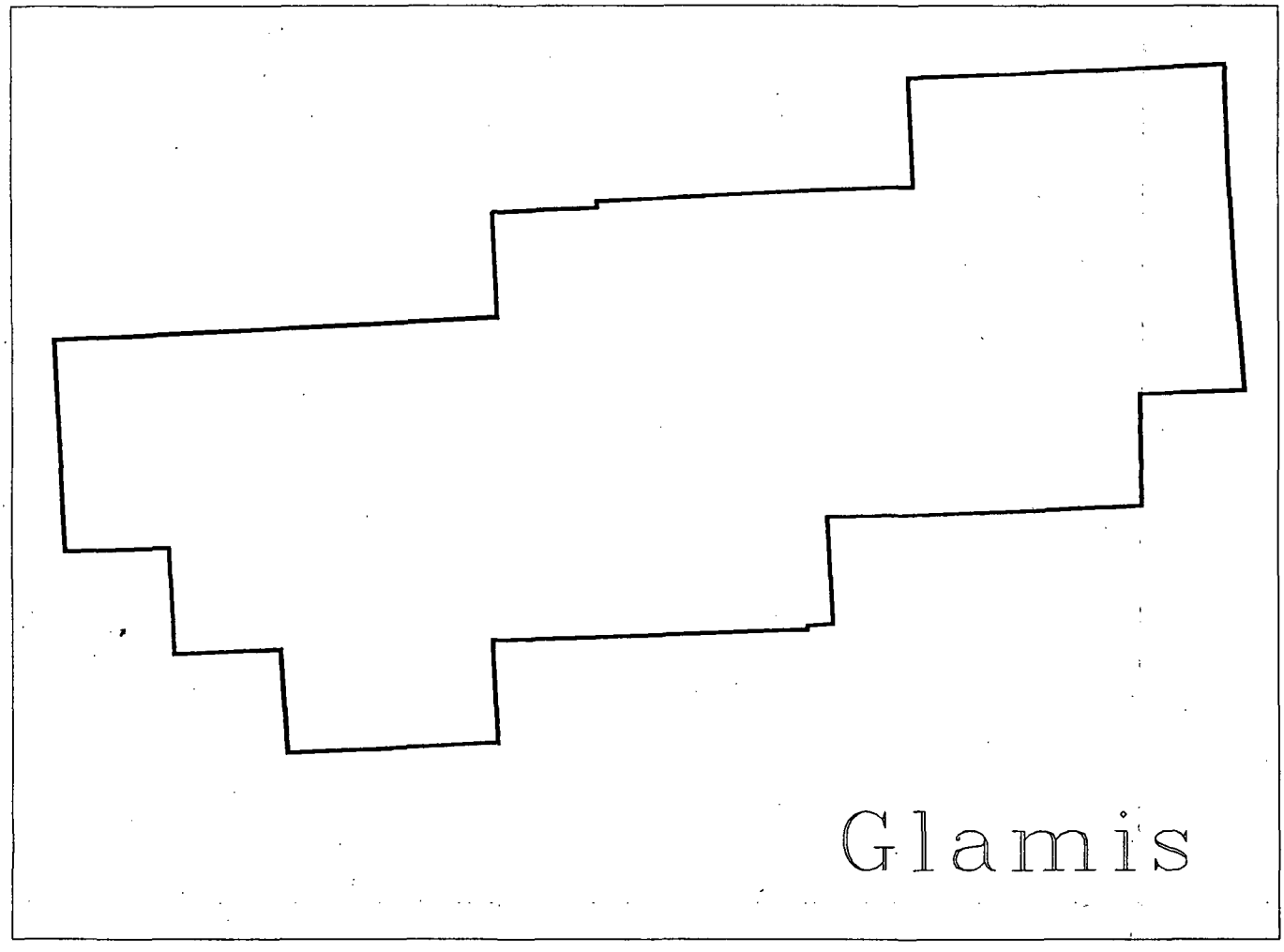
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:05:43



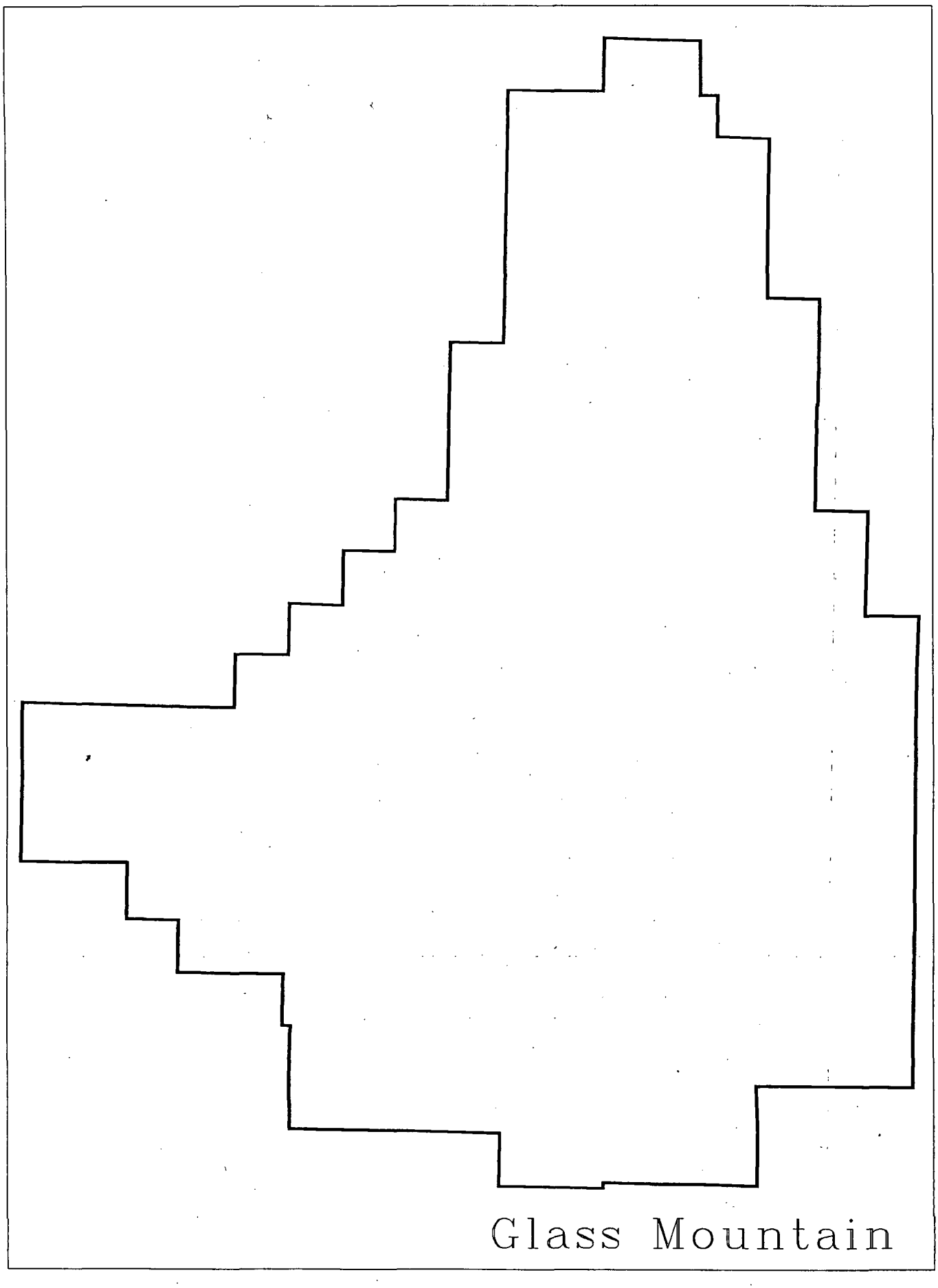
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:04:18


East Mesa
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:07:38

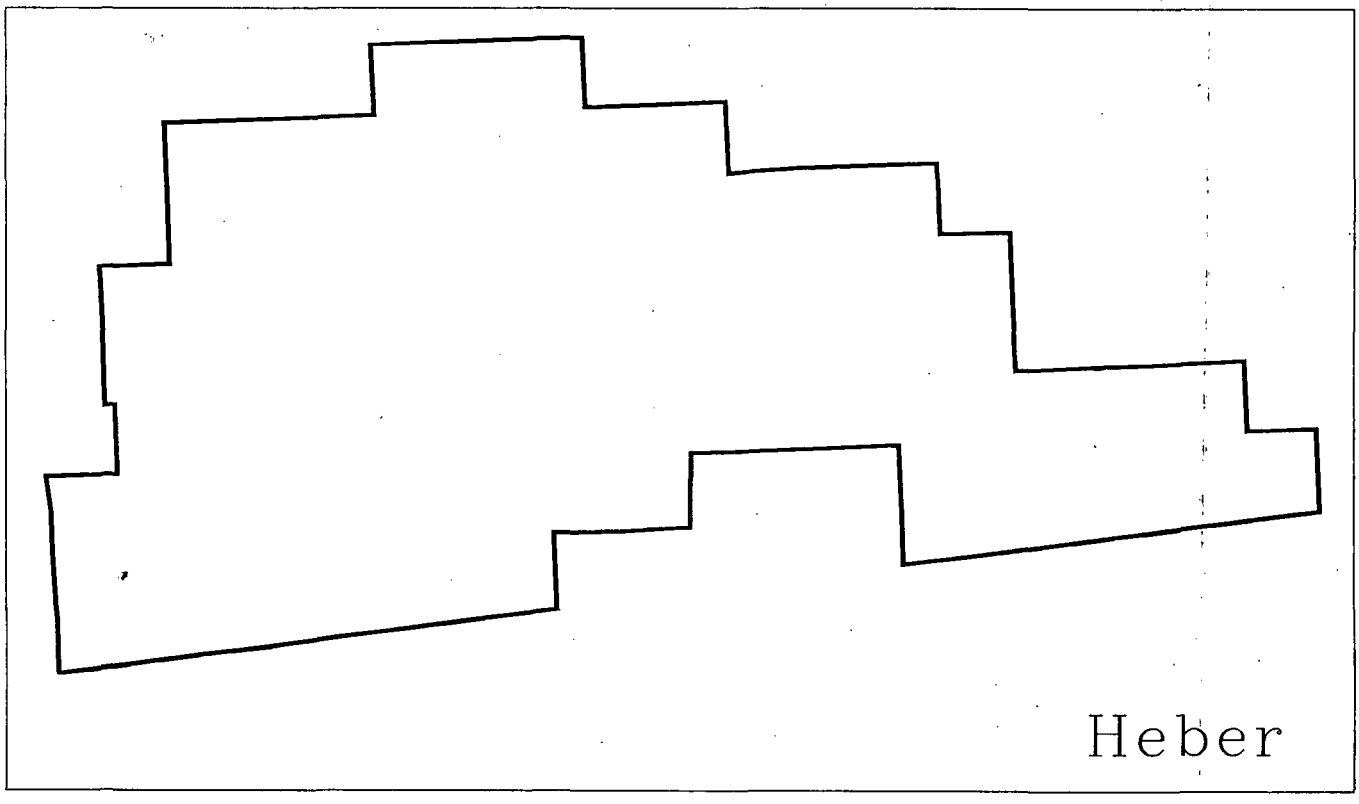

The Geysers
c:\-data\gis\sprgwell\sprgwell.dgn May. 10. 1994 08:55:23



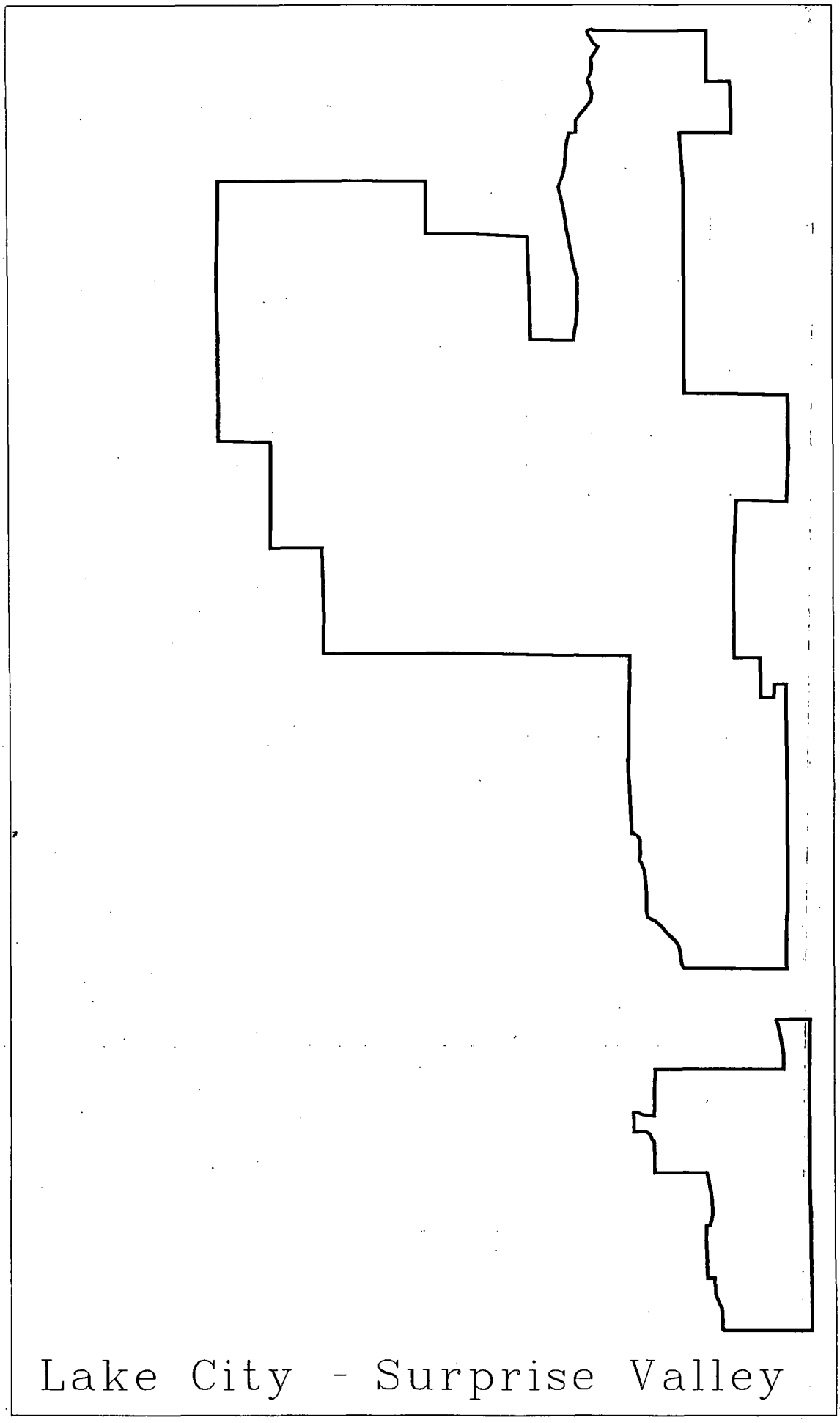
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:05:03

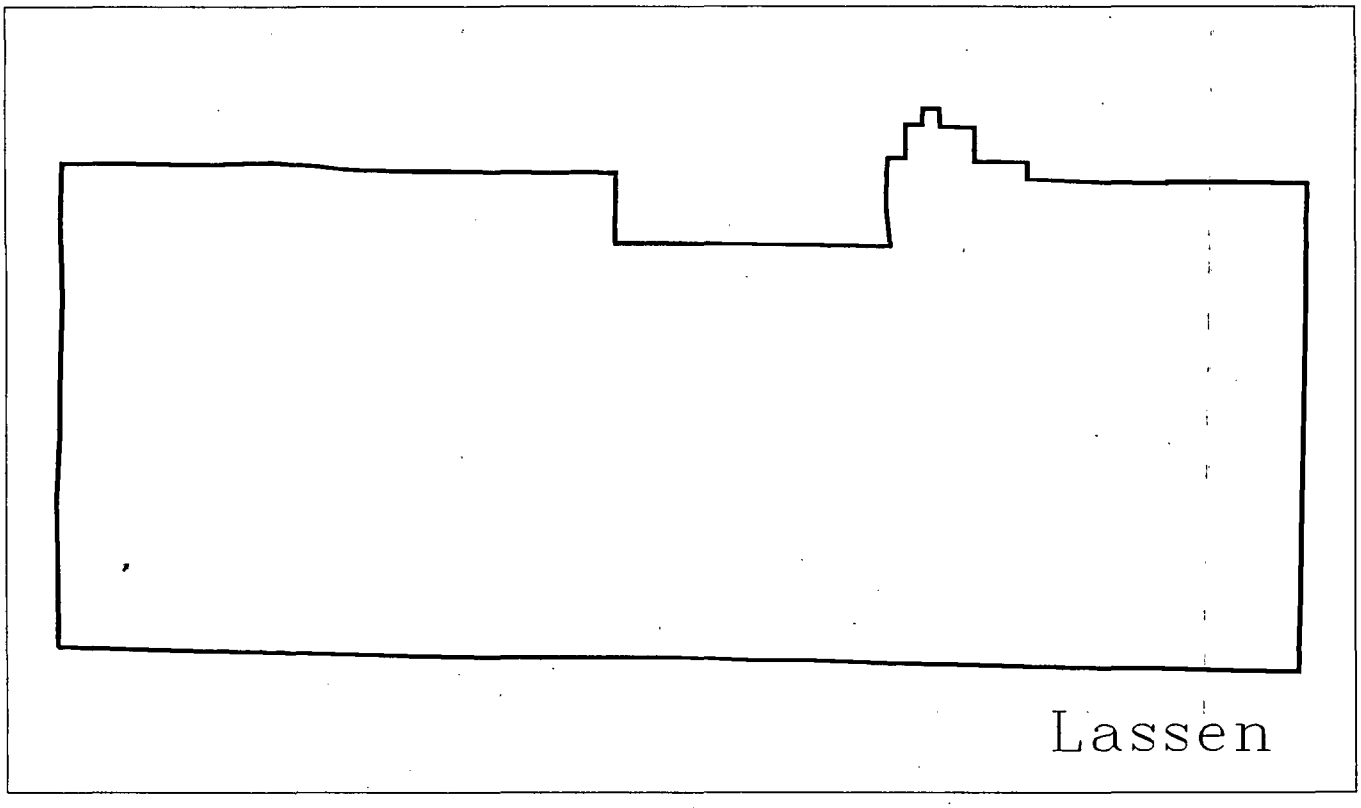


c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 08:50:37

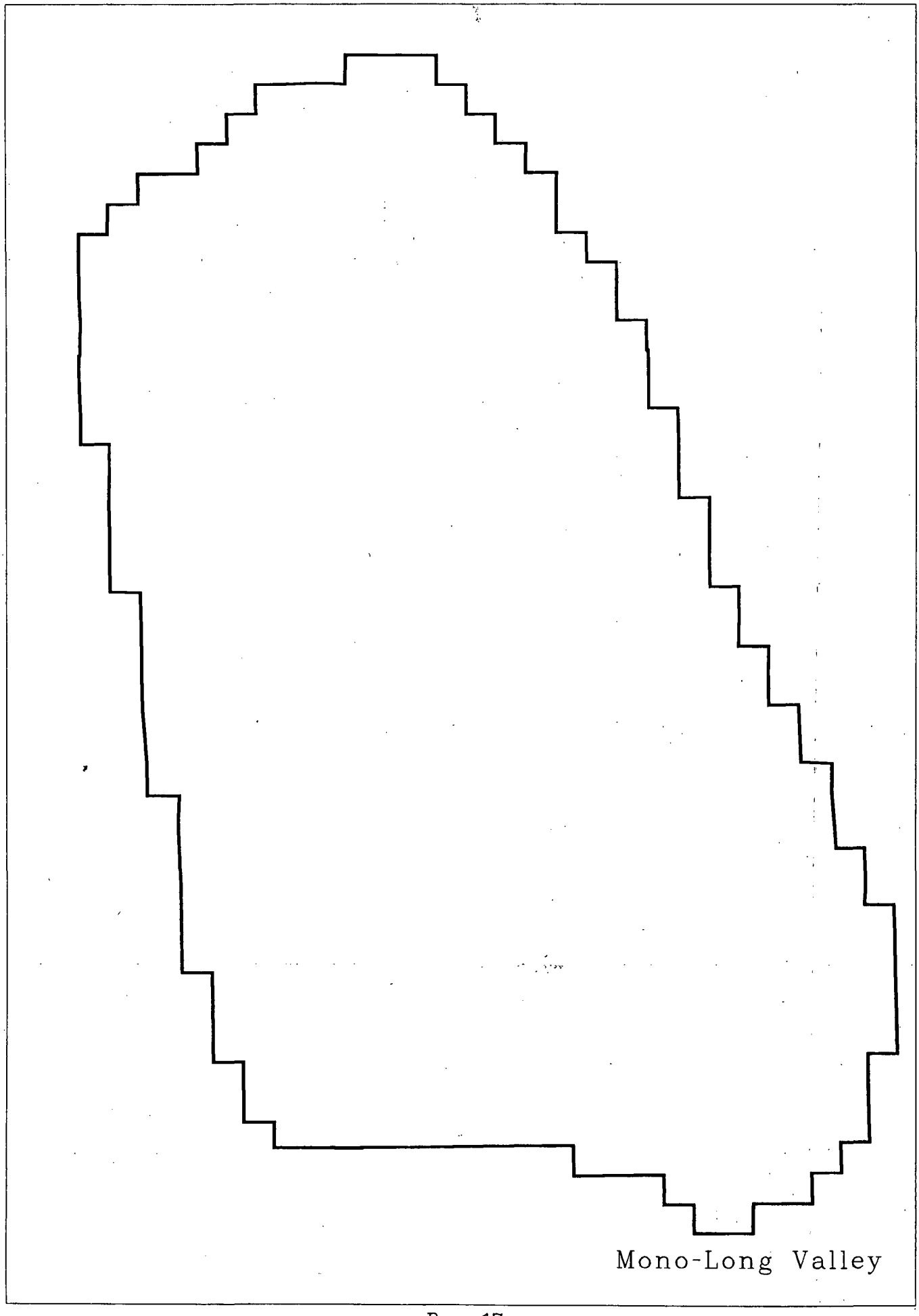


c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:06:23

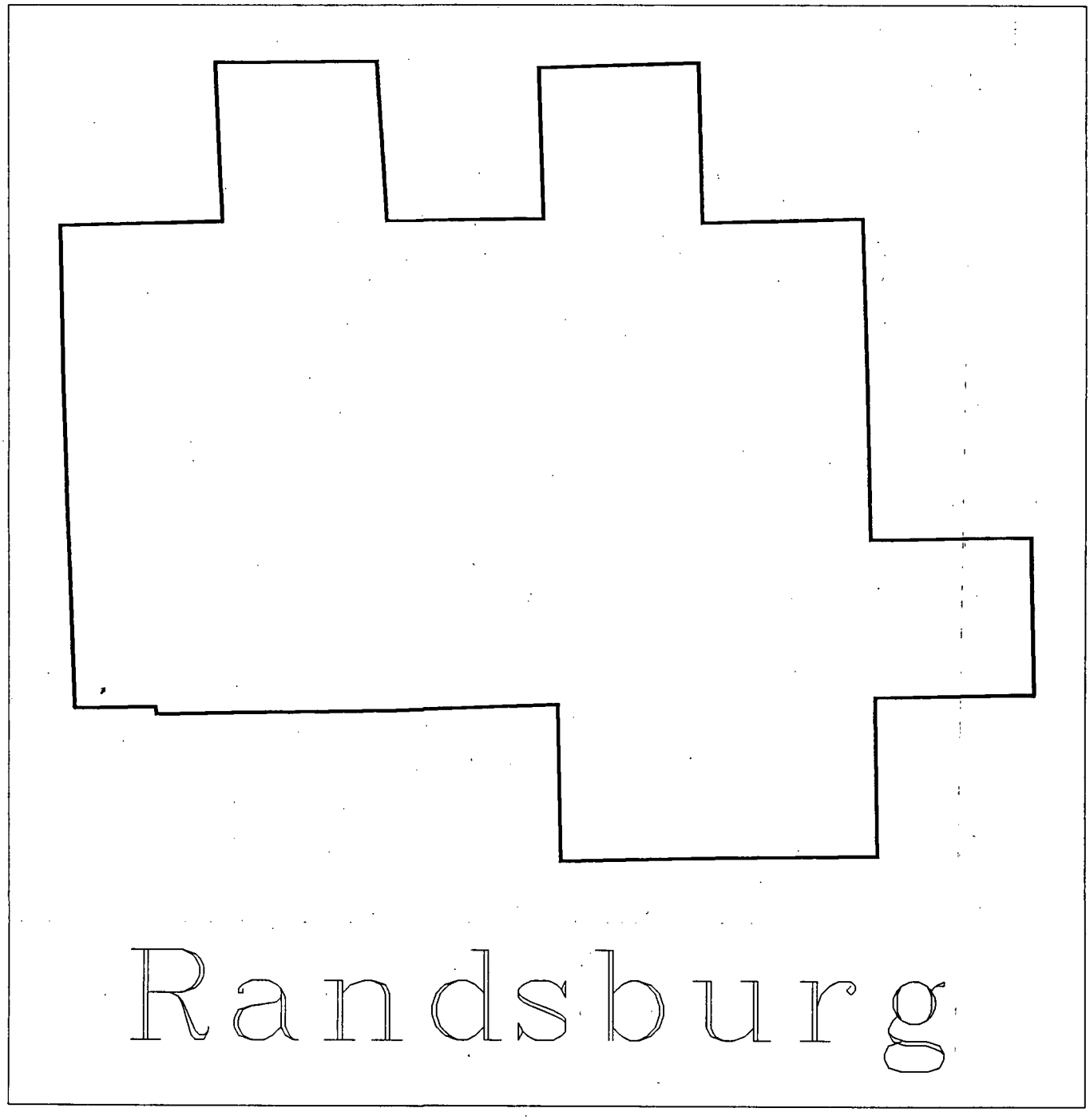

Lake City - Surprise Valley
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 08:51:33



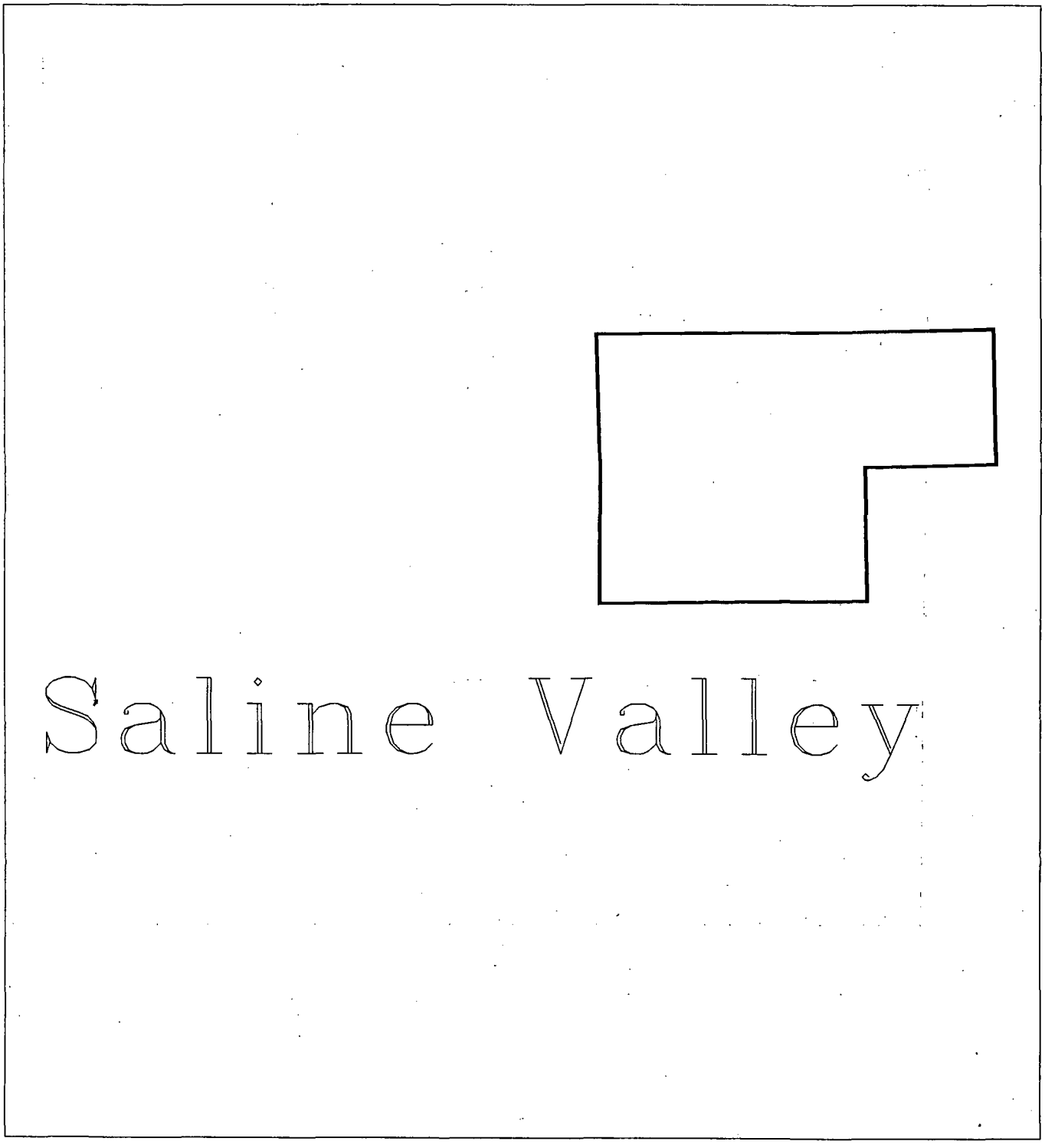
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 08:52:55



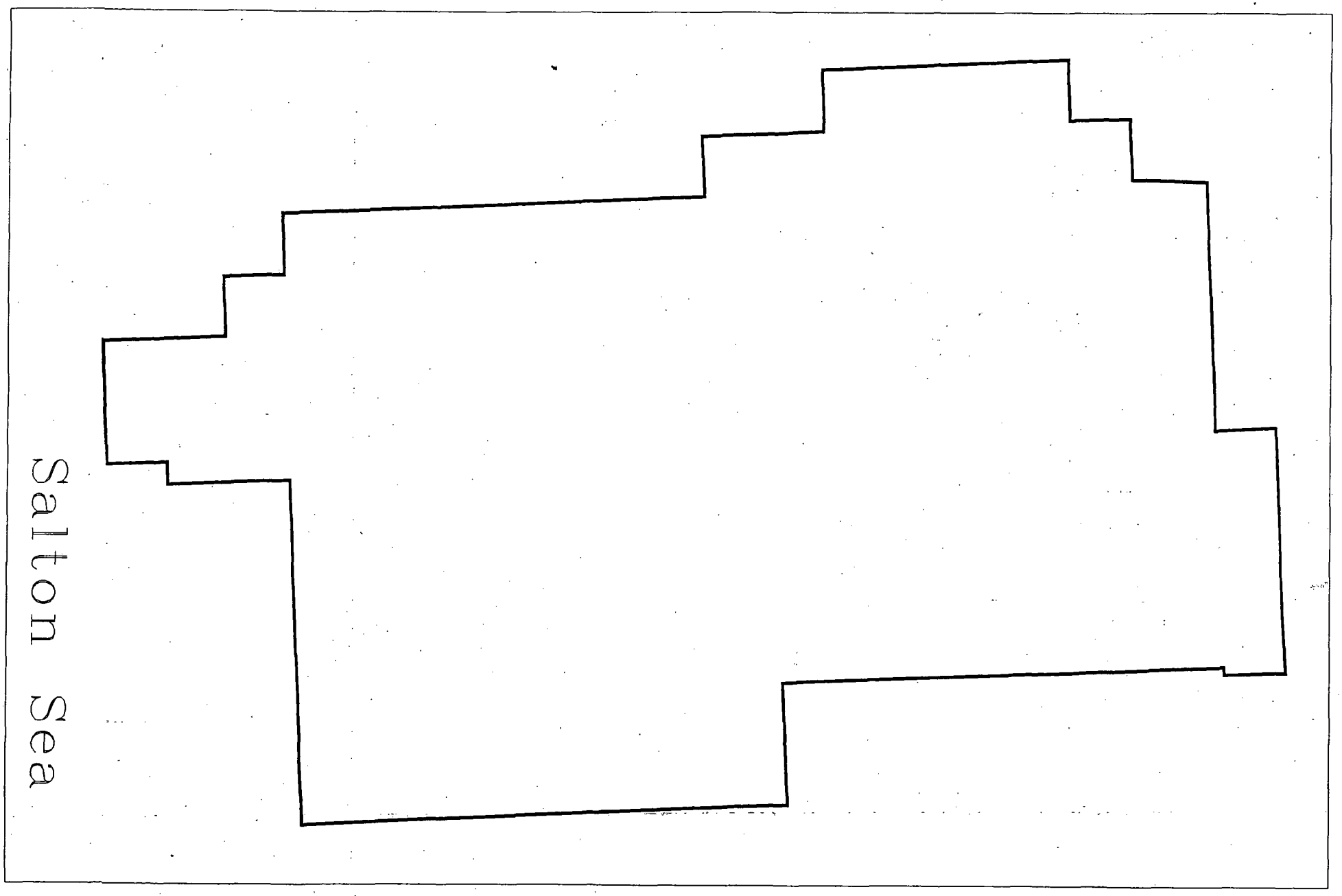
c:\-data\gis\sprgwell\sprgwell1.dgn May. 10, 1994 08:58:11



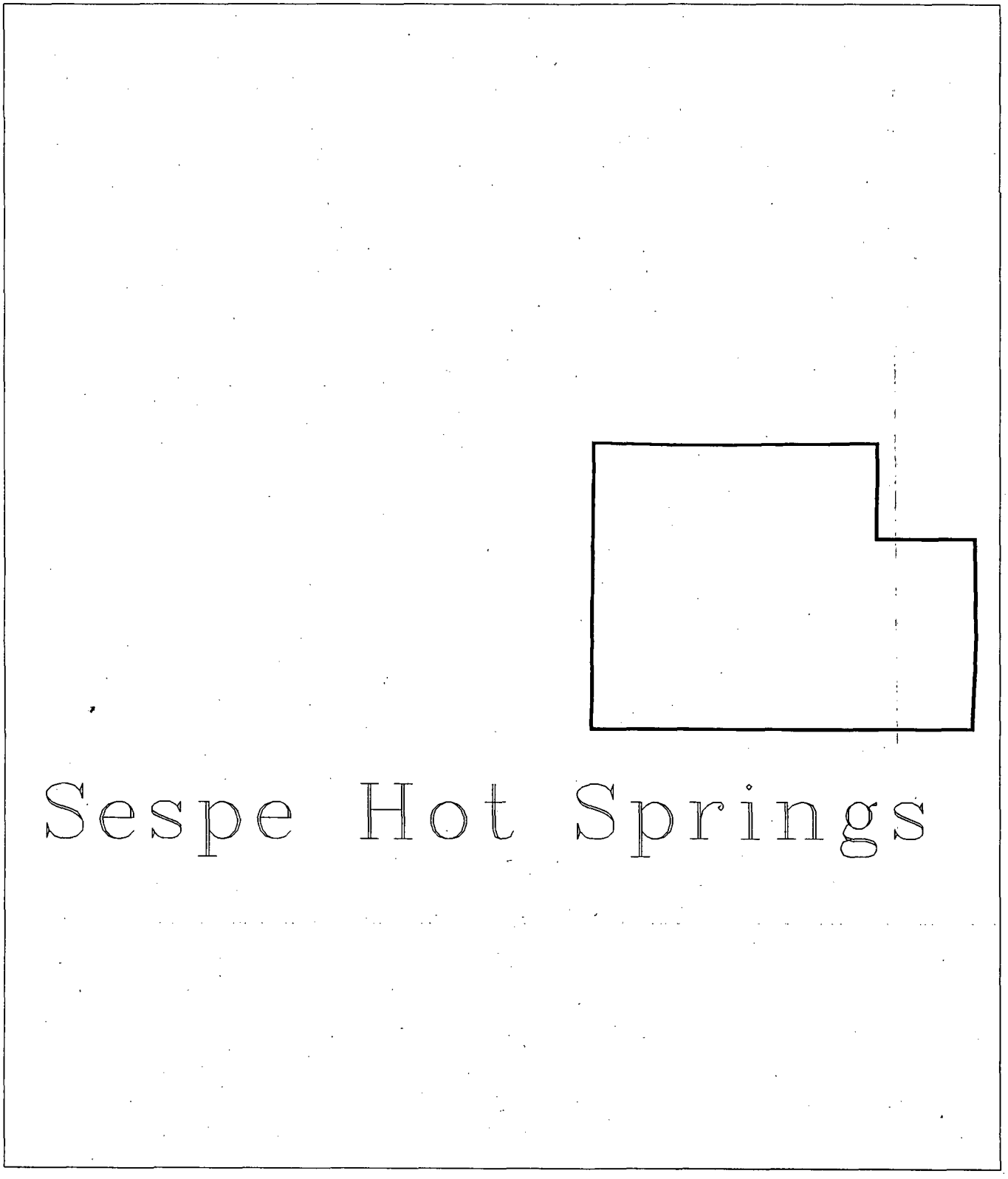
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:01:22



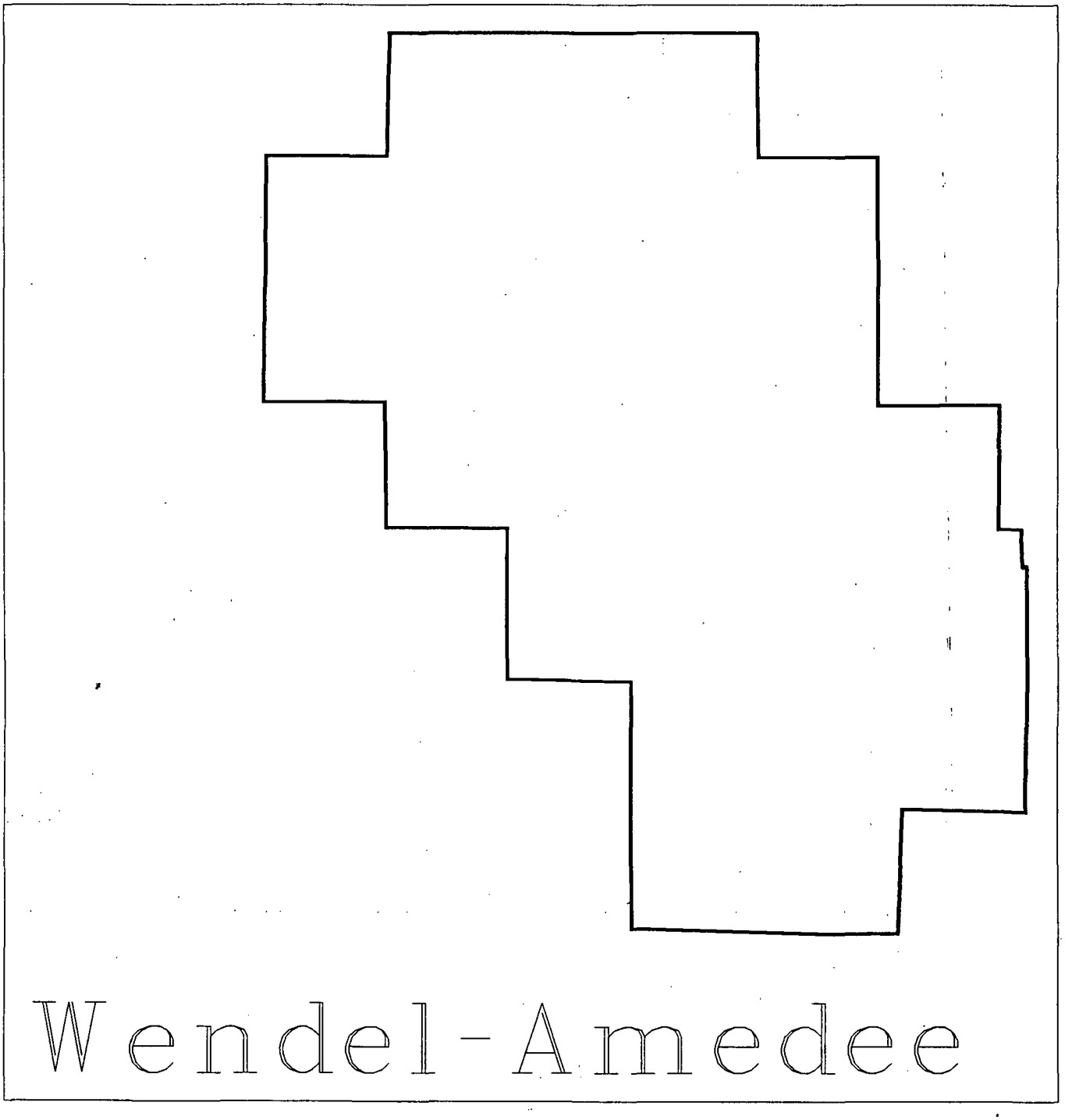
c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:35:37



c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:02:32


Sespe Hot Springs
c:\-data\gis\sprgwell\sprgwell.dgn May. 10. 1994 09:36:16

c:\-data\gis\sprgwell\sprgwell.dgn May. 10, 1994 09:03:19


Wendel-Amedee
c:\-data\gis\sprgwell\sprgwell.dgn May. 10. 1994 08:54:08

CALIFORNIA COMMUNITIES WITH GEOTHERMAL RESOURCE DEVELOPMENT POTENTIAL

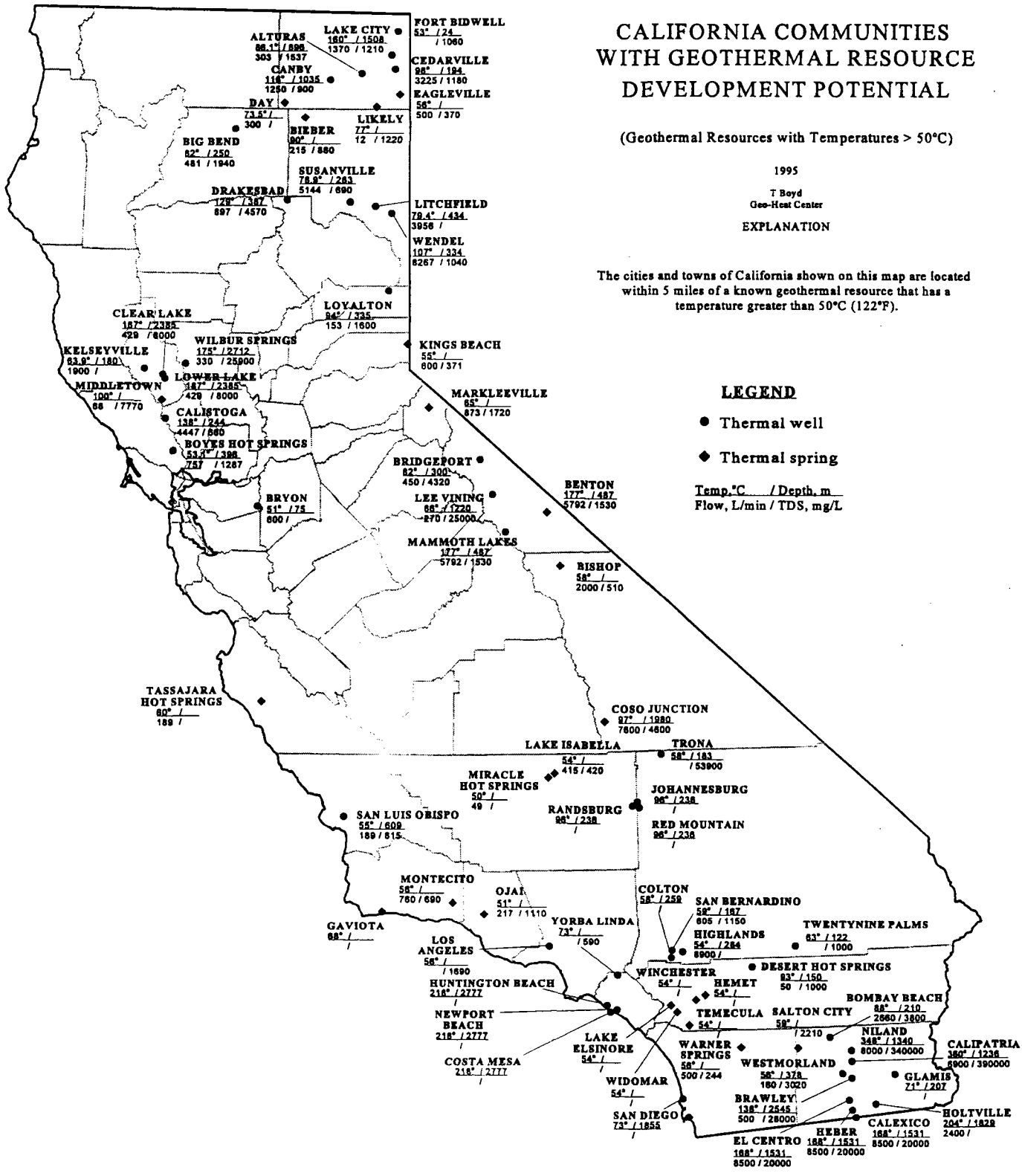
(Geothermal Resources with Temperatures > 50°C)

1995

T Boyd
Geo-Heat Center

EXPLANATION

The cities and towns of California shown on this map are located within 5 miles of a known geothermal resource that has a temperature greater than 50°C (122°F).



LEGEND

- Thermal well
- Thermal spring

Temp,°C / Depth, m
Flow, L/min / TDS, mg/L

STATE OF CALIFORNIA - THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
MINERAL RESOURCES DEVELOPMENT PROGRAM
801 K Street, Suite 800, Mail Stop 08-38
Sacramento, California 95814-3531
Telephone (916) 327-0791

February 7, 1995

Geo-Heat Center
Oregon Institute of Technology
Klamath Falls, Oregon 97601

Dear Paul Lienau:

I am sending you a copy of the preliminary version of the "California Low-Temperature Geothermal Resources Update- 1993" that was developed for the Low-Temperature Geothermal Resources and Technology Transfer Program in response to our recent telephone conversation. I am also sending a copy to Howard Ross and Marshall Reed as you suggested. The report is in our final review process and I suspect only very minor changes will result from that process. I have been told that the review should take only a few days. I hope this will be the case, but experience suggests that it may take a little longer. We are planning to print only fifty copies of the final version at this time. I will send you twenty-five copies for your distribution. I am trying to expedite the process so that I may be able to send to you those copies in a couple of weeks.

We are planning to publish a portion on the text, the statewide map, and a diskette with the database in our open-file report format for greater public distribution. If you have any suggestions or comments, please call me. Again, I wish to express my sincere apology for the lateness of this finalized report and thank you very much for your kind patience.

Sincerely,

Leslie G. Youngs

Leslie G. Youngs
Geologist/Geophysicist
(916) 322-8078

cc: Howard Ross
Marshall Reed

STATE OF CALIFORNIA - THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
MINERAL RESOURCES DEVELOPMENT PROGRAM
801 K Street, Suite 800, Mail Stop 08-38
Sacramento, California 95814-3531
Phone (916) 327-0791
Fax (916) 327-1853

August 19, 1993

Mr. Howard Ross
University of Utah Research Institute
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108-1295

Dear Mr. Ross:

I recently (August 13, 1993) sent to you a response to your inquiry regarding some statistical data on geothermal resources in California. The material was to be used to develop a fact sheet for distribution to congress. I sent a copy of that response to the OIT, Geo-Heat Center. Gene Culver reviewed the data and made a suggestion. I had discussed the topic "number of areas-direct heat use" while specifically not including resorts/spas that directly utilized geothermal waters in pools or baths.

Gene reminded me that California's commercial geothermal resort/spa business is quite large and that these areas should be included as "direct heat uses" to adequately portray the extent of low-temperature development in California. I agreed.

We have compiled a list of 48 commercial resort/spa areas currently operating in California that use geothermal waters directly in pools and baths. Almost all are developed historically known hot springs areas. This number should be added to the total number of direct heat uses in California that I previously reported to you.

I apologize for the confusion and inconvenience.

Sincerely,

Leslie G. Youngs

Leslie G. Youngs
Geologist/Geophysicist
(916) 322-8078

STATE OF CALIFORNIA - THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
MINERAL RESOURCES DEVELOPMENT PROGRAM
801 K Street, Suite 800, Mail Stop 09-38
Sacramento, California 95814-3531
Phone (916) 327-0791
Fax (916) 327-1853

August 13, 1993

Mr. Howard Ross
University of Utah Research Institute
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108-1295

Dear Mr. Howard Ross:

Re: Low-Temperature Geothermal Resources and Technology Transfer Program (California). A quarterly report.

Quarterly report

To meet provisions of the contract, number 1092-023(R), to provide a program of Low-Temperature Geothermal Resources and Technology Transfer the Department of Conservation, Division of Mines and Geology (DMG) has compiled a computer database listing of low-and moderate-temperature geothermal occurrences in California. The computer database was initially derived from data presented in "Text for Technical Map of the Geothermal Resources of California Geologic Data Map No. 5", by H.H. Majmundar, 1984. The computer list was amended with data from the many DMG published geothermal reports done during the early 1980's State-coupled geothermal program. Chemistry analyses were updated from those publications, also.

The DMG geothermal computer database was compiled in the LOTUS 123 spread sheet program after the format of Robert E. Blackett of the Utah Geological Survey. The database now contains 831 records, however more are currently being added. The database is being compared with GEOTHERM, WATSTORE, STORET, and other files to test for completeness.

The Department of Conservation, Division of Oil, Gas, and Geothermal (DOGG) has a large computer file of primarily high-temperature wells drilled in California. We are assessing the suitability of searching and including those records in the DMG database. There are problems of proprietary restrictions, location coordinate formats, and incompleteness of data to be resolved.

I was able to attend the Salt Lake City, July 8-9, 1993, meeting of the Low-Temperature Resource Assessment Program participants through the kind help of Paul Lienau, Gene Culver,

and staff of the Geo-Heat Center, Oregon Institute of Technology (OIT). I wish to thank them very much for their aid. The meeting was very informative and served to standardize the geothermal databases of all the participants.

The preliminary collocated list of California cities/towns and geothermal resources has been reviewed by Gene Culver of OIT and his suggestions and information have been added to the data. The finalized list is drafted and being reviewed.

We are beginning to develop a priority list of resource areas for more detailed studies from the data collected so far. We are using the guidelines provided by UURI to set priorities.

I have accumulated some data in response to your request for geothermal information from state teams to develop a fact sheet for distribution to Congress. The following is a discussion of the specific data for California that you requested:

Number of Thermal Wells in California

	Low-temperature Wells Drilled	High-Temperature Wells Drilled	Observation Wells Drilled
1992 Inventory	551	744	1,510
1980-83 Inventory	486	345	1,066
Change	65	399	444

The early 1980's inventory of thermal occurrences published by the Division of Mines and Geology (DMG) on their "Geothermal Resources of California" map listed 635 geothermal wells and springs. That number included 297 springs, 48 high-temperature wells, and 290 low-temperature wells. However, only a representative number of high-temperature wells were listed to show the general characteristics of certain KGRA's. Likewise, in some low-temperature resource areas only a few representative wells were listed and plotted to facilitate map clarity. I have so far added 196 low-temperature wells, that were in existence prior to 1980, to the original DMG list.

The Department of Conservation, Division of Oil, Gas, and Geothermal (DOGG) has records of geothermal well drilling in

California back to 1920. I have summarized their data in Table 1. However, their records of low-temperature well drilling are very poor prior to the early 1980's since most early low-temperature wells were drilled as "water wells". That practice is outside of the DOGG regulation. However, the records of high-temperature geothermal well drilling are "good" from the early records to the present. I have not searched and/or added the DOGG data to the new inventory as of yet. Among other small problems is a conflict in the well location coordinate system. We are currently discussing this problem.

At this point it is a little difficult to determine the complete number of thermal wells in existence in California prior to about 1980. However, I have combined data and show what I think is the best estimate at the top of this discussion.

Table 1.

Geothermal Wells Drilled in California

Year	Low Temperature Wells Drilled	High Temperature Wells Drilled	Observation Wells Drilled
1920-79	171	345	1,066
1980	7	40	112
1981	4	39	116
1982	2	36	69
1983	4	38	26
1984	4	55	32
1985	8	41	40
1986	7	29	15
1987	4	35	17
1988	8	35	9
1989	3	11	3
1990	4	24	4
1991	5	16	1
1992	5	?	?
Totals 1980-1992	65	399	444
Grand Totals	236	744	1,510

Data is from Department of Conservation, Division of Oil, Gas, and Geothermal files.

Number of resource areas in California

1993 Inventory	-	252 resource areas
1980-83 Inventory	-	250 resource areas
Change	-	2 resource area

The 1980 CDMG geothermal resources map showed 25 Known Geothermal Resource Area's (KGRA's) designated in California. However, six KGRA's have been declassified since then due to lack of proven resource. Therefore, there are 19 KGRA's in California as of 1993.

The earlier inventory geothermal map of California also depicted 37 general areas as having known or inferred shallow, low-temperature resources. These areas generally contain more than one thermal well (often drilled water wells) and/or warm springs within a few square miles. During the State-coupled program of the early 1980's the DMG "discovered" two previously undocumented, small low-temperature resource areas (Santa Rosa and Kelseyville).

There are 194 "singular" thermal occurrences shown on the geothermal resources map of California. These are generally small, often remote, warm springs and isolated warm water well occurrences.

In total then there are 252 documented resource areas in California. They range in temperature and area from large steam producing fields to small, isolated warm water occurrences.

Number of areas, direct heat use

1993 Inventory	-	17 operating projects
1980-83 Inventory	-	8 operating projects, approximately
Change	-	9

In this discussion of direct heat use I do not include spa/baths operations in California.

During the early 1980's State-coupled studies the DMG found that there were about 8-10 direct heat uses of low-temperature geothermal resources in California in operation. These were generally technically crude or rudimentary applications including small aquaculture facilities, small greenhouse projects, and

custom built space heating systems. Grants and cost-share Mr. programs instituted by the U.S. Department of Energy (DOE) and the California Energy Commission(CEC) in the late 1970's-early 1980's sparked an awakening in California to utilization of low-temperature resources. Perhaps as many as 25 low-temperature applications or projects were begun in California over the past 10 years. Some have halted due to lack of resource, loss of funding, economic feasibility, and/or local political concerns. Other projects are expanding and a very few studies are begun each new year. However, there are now about 17 currently operating direct-heat, low-temperature use applications in California. They include district heating, space heating, greenhouses, and aquaculture.

I am available to answer any questions about the above statistics that I am able. Thank you very much for your support.

Sincerely,

Leslie G. Youngs

Leslie G. Youngs
Geologist/Geophysicist
(916) 322-8078

Acknowledgement and disclaimer statements must be used within technical manuscripts (including extended abstracts) produced under Federal contracts and grants (and non-Federal manuscripts where appropriate). Each contract or grant should be reviewed for specific required statements. The following are example acknowledgement and disclaimer statements:

ACKNOWLEDGEMENT

> This work was supported, in whole or in part, by the U.S. Department of Energy, Contract NO. ~~DE-AC07-85ID12489.~~ Such support does not constitute an endorsement by the U.S. Department of Energy of the views expressed in this publication.

The following disclaimer should appear on the inside front cover or on the title page of each report prepared under Federal sponsorship:

DISCLAIMER

> This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

When manuscripts that are sponsored by a Federal agency are submitted to a copyright publication, and the publisher asks the author to complete a copyright transfer form before final acceptance, the author must include a statement on the copyright transfer form similar to the following example:

> The submitted manuscript has been authored by a contractor of the U. S. Government under Contract No. ~~DE-AC07-85ID12489.~~ According, the U.S. Government retains a non-exclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

STATE OF CALIFORNIA - RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
MINED-LAND RECLAMATION PROJECT
801 K STREET, MS 09-37
SACRAMENTO, CA 95814-3531
(916) 323-0567 PHONE
(916) 322-4862 FAX

LEAD SHEET FOR FAX MACHINE

DATE: April 23, 1993

TIME: ~ 10:00

DELIVER MESSAGE TO: Mr. Howard Ross

(OR ALTERNATE PERSON) _____

OFFICE ADDRESS: Earth Science Laboratory, UURI

FROM: Les Youngs, California Division of Mines & Geology

TITLE/SUBJECT MATTER: Geothermal

_____

NUMBER OF PAGES TO FOLLOW: 5

LEGIBILITY OF SENDING COPY: [X] GOOD [ ] FAIR [ ] POOR

INSTRUCTIONS FOR RESPONSE: None

_____

_____

SPECIAL INSTRUCTIONS: _____

_____

_____

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
MS 08-38
DIVISION OF MINES AND GEOLOGY
801 K STREET
SACRAMENTO, CA 95814-3531

April 23, 1993

University of Utah Research Institute
Earth Science Laboratory
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108-1295

Dear Mr. Howard Ross:

I have accumulated some rudimentary numbers and comparisons of known geothermal wells and springs in California since the publication of the early 80's California database map. The following chart shows the numbers of documented geothermal wells drilled in California by year from 1980 to the present:

Year	Low Temperature Wells Drilled	High Temperature Wells Drilled	Observation Wells Drilled	Exploration Wells Drilled
1980	7	26	112	14
1981	4	25	116	14
1982	2	27	69	9
1983	4	33	26	5
1984	4	48	32	7
1985	8	34	40	7
1986	7	28	15	1
1987	4	30	17	5
1988	8	26	9	9
1989	3	8	3	3
1990	4	13	4	11
1991	5	12	1	4
1992	5	?	?	?
TOTAL	65	310	444	89

Data is from Department of Conservation, Division of Oil, Gas, and Geothermal files.

Of course none of these data in the table above are included in the original "Geothermal Resources of California" map by Higgins, 1980. As can be seen there has been much activity in geothermal development of high temperature resources over the past decade in California, but rather disappointingly low activity in the development of low- to moderate-temperature geothermal resources of the state. A list of the low-temperature wells drilled in California since 1980 is attached.

The following is a review of some data bases containing geothermal well and spring data of California:

1. The original "Geothermal Resources of California" map (1980) listed approximately 630 geothermal wells and springs distributed over California. However, only a very few representative geothermal well locations were listed within KGRA's such as The Geysers, the Salton Sea area, etc. for map clarity.

2. The GEOTHERM file (Bliss, 1983) contains 1,535 listings of geothermal wells and springs in California.

3. Appendix B, a tabulated list of thermal springs and well, in "An Explanatory text to accompany the 1:750,000 scale fault and geologic maps of California" (Jennings, 1985) lists 601 geothermal wells and springs in California.

4. The STORET water quality computer data file maintained by the EPA may contain over a 1,000 wells and springs in California with temperature $>20°C$. It is expected that many of these warm water well locations have not been presented on previous geothermal data bases.

5. The Division of Mines and Geology's early to mid 80's detailed geothermal resource investigation reports contain data on approximately 300-500 previously undocumented geothermal (warm water) wells in study areas such as Calistoga, San Bernardino, San Diego, Sonoma Valley, etc.

6. The table presented above shows 375 new documented geothermal wells (both high and low temperature) drilled since 1980, but not presented in a published data base, that I know of.

A cursory examination of the available data suggests that there are perhaps as many as 1,500-2,500 geothermal wells (predominately warm water wells) in California to be added to the original Division of Mines data base that was depicted on the 1980 "Geothermal Resources of California" map. The problem of defining duplication of locations has not yet been clearly assessed. This analysis does not include temperature gradient wells (observation wells).

I hope these data are of use to you in preparing the "fact sheet" for the present Low Temperature and Geothermal Heat Pump Technology Transfer Program that you are planning to present to Congress and the DOE. Please call me for any additional data that I may be able to supply to you. Thank you very much.

Sincerely,

Les Youngs

Leslie G. Youngs
Geologist/Geophysicist

LGY:vw

REFERENCES

Bliss, J.D., 1983, California - Basic data for thermal springs and wells as recorded in GEOTHERM: U.S. Geological Survey Open-File Report 83-428A, 709 p. and Open-File Report 83-428-B, Microfiche file.

Higgins, C.T., 1980, Geothermal Resources of California: California Division of Mines and Geology, Geologic Data Map Series Map No. 4, scale 1:750,000.

Jennings, C.W., 1985, An explanatory text to accompany the 1:750,000 scale fault and geologic maps of California: Department of Conservation, Division of Mines and Geology, Bulletin 201, p. 81-118.

U.S. Environmental Protection Agency, STORET - The water quality information system: U.S. Environmental Protection Agency, Washington, D.C., a computer data base of surface and ground water quality.

LOW- TO MODERATE-TEMPERATURE GEOTHERMAL WELLS DRILLED IN CALIFORNIA SINCE 1980

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
06590169	PRATT	DHS	2	N	P	92	11	03S	05E	SB	Pratt	1		ACTV	NLT
06590166	MOHNS	DHS	2	N	P	91	04	03S	05E	SB	Mohnsen	1		ACTV	NLT
06590168	TERRY		2	N	P	91	12	03S	05E	SB	Sky Valley No.	1		ACTV	NLT
06590171	SEGAL	DHS	2	N	P	92	04	03S	05E	SB	Segal	1		ACTV	NLT
05590055	CLSTG	CALIS	3	Y	P	80	35	09N	07W	MD	Greenwood Ave	1428	0	ACTV	NLT
05590085	CLSTG	CALIS	3	Y	P	86	36	09N	07W	MD	View Road	40	0	ACTV	NLT
05590114	CLSTG	CALIS	3	N	P	87	36	09N	07W	MD	Grant St	1514	0	ACTV	NLT
05590121	CLSTG	CALIS	3	Y	P	88	36	09N	07W	MD	View Road	33	0	ACTV	NLT
01190003	SUNED		1	N	P	80	29	14N	05W	MD	Sunsd/Bailey Min	1		ABDN	NLT
03590071	DAVIS	SUSAN	1	N	P	85	32	30N	12E	MD	Davis	2		ACTV	NLT
06390012	IVH		1	N	P	82	02	26N	09E	MD	GRN	1		ACTV	NLT
06390014	PLUMA		1	N	P	84	02	26N	09E	MD	GHS	1		ACTV	NLT
08990015	ISS		1	N	P	83	31	37N	01E	MD	ISS	1		ACTV	NLT
04990018	CPINE		1	N	P	83	10	41N	11E	MD		1		ACTV	NLT
02590035	BASHF		2	N	P	80	01	09S	12E	SB		1		ACTV	CLT
02590639	ENGLR		2	N	P	85	01	09S	12E	SB	Niland	1		ACTV	CLT
02590688	HARBT	EMESA	2	Y	F	87	06	16S	17E	SB	SW	3		ACTV	CLT
02590728	HARBT	EMESA	2	Y	F	87	05	16S	17E	SB	SW	1		ACTV	CLT
02590850	ORMAT	EMESA	2	Y	F	88	32	15S	17E	SB	CA-6217	SW-2		ACTV	CLT
02590862	ORMAT	EMESA	2	Y	F	88	32	15S	17E	SB	CA-6217	SW-5		ACTV	CLT
02590877	ENGLR		2	N	P	88	01	09S	12E	SB	Niland	2		ACTV	CLT
02590881	BART		2	N	P	80	01	09S	12E	SB	Imperial	1		ABDN	CLT
06590001	AQUA		2	N	P	80	03	08S	11E	SB	Aqua	1		ACTV	CLT
06590002	AQUA		2	N	P	80	03	08S	11E	SB	Aqua	2		ACTV	CLT
06590003	AQUA		2	N	P	80	03	08S	11E	SB	Aqua	3		ACTV	CLT
06590008	ELSIN		2	Y	P	85	07	06S	04W	SB	GW	1		ACTV	CLT
06590009	ELSIN		2	Y	P	85	07	06S	04W	SB	GW	2		ACTV	CLT
06590015	ELSIN		2	Y	P	85	06	06S	04W	SB	GW	3		ACTV	CLT
06590143	DHS	DHS	2	Y	P	82	32	02S	05E	SB		129		ACTV	CLT
06590144	DHS	DHS	2	Y	P	81	32	02S	05E	SB		130		ACTV	CLT
06590145	DHS	DHS	2	Y	P	85	09	03S	05E	SB		131		ACTV	CLT
06590146	DHS	DHS	2	Y	P	84	11	03S	05E	SB		132		ACTV	CLT
06590162	LEISS		2	N	P	87	36	08S	12E	SB	Leiss	1		ACTV	CLT
06590163	LEISS		2	N	P	88	36	08S	12E	SB	Leiss	2		ACTV	CLT
06590165	LVLDG	DHS	2	N	P	90	32	02S	05E	SB	Linda Vista Lodg	1		ACTV	CLT
06590172	VONG		2	Y	P	92	19	08S	09E	SB	Oasis	81		ACTV	CLT
07190048	SNBER		2	N	P	84	10	01S	04W	SB	Mill & D	2		ACTV	CLT
07990002	PASRB		2	N	P	88	34	26S	12E	MD	Testhole	3		SUSP	CLT
02591158	FYSPA		2	N	P	89	07	09S	13E	SB	Spa	2		ACTV	CLT
02591163	ENGLR		2	N	P	89	01	09S	12E	SB	Niland	3		ACTV	CLT
06590161	BASHF		2	N	P	89	36	08S	12E	SB	Bashford	2		ACTV	CLT
07190062	TNP		2	N	P	90	29	01N	09E	SB	TNP	1		IDLE	CLT
02591190	BART		2	N	P	90	01	09S	12E	SB	Imperial	2		ACTV	CLT
02591192	SCHWD		2	N	P	91	01	09S	12E	SB	Imperial	20		ACTV	CLT
02591203	BART		2	N	P	92	1	09S	12E	SB	Imperial	3		ACTV	CLT
02591206	FISHP		2	Y	P	92	12	11S	14E	SB	Ray	1		ACTV	CLT
03390517	LAKE		3	N	P	86	33	13N	08W	MD	Ag Park	1	0	ACTV	CLT
03390548	LAKE		3	N	P	86	32	13N	08W	MD	Ag Park	2	0	ACTV	CLT
03390559	LAKE		3	N	P	86	33	13N	08W	MD	Ag Park	3	0	ACTV	CLT
05590048	WILSN	CALIS	3	Y	P	81	36	09N	07W	MD	Wilson	1	0	ACTV	CLT
05590080	CJUSD	CALIS	3	N	P	83	36	09N	07W	MD	CHS	1	0	ACTV	CLT
05590081	QUAST	CALIS	3	N	P	83	36	09N	07W	MD	Roman Spa	1	0	ACTV	CLT
05590082	CALIS	CALIS	3	Y	P	84	36	09N	07W	MD	Calis	1	0	ACTV	CLT
05590083	VIP	CALIS	3	N	P	86	36	09N	07W	MD	Village Inn	1		ACTV	CLT
05590084	CJUSD	CALIS	3	N	P	86	36	09N	07W	MD	CHS	2	0	ACTV	CLT
05590120	NAPVA	CALIS	3	Y	P	88	36	09N	07W	MD	Fox	3	0	ACTV	CLT
05590123	CLSTG	CALIS	3	Y	P	90	36	09N	07W	MD	CDHS	1	0	ACTV	CLT
05590124	CMWC	CALIS	3	Y	P	91	31	09N	06W	MD	CMW	3	0	ACTV	CLT
09790533	EEI		3	N	S	85	00	06N	06W	MD	SS	3	0	ABDN	CLT
09790820	SCPD		3	Y	P	91	02	05N	06W	MD	SV	1	0	ACTV	CLT
03590063	SUSAN	SUSAN	1	N	P	81	31	30N	12E	MD	Susan	1		ACTV	CLT
03590065	CARSN	LITCH	1	N	P	81	02	29N	13E	MD	Johnston	1		ACTV	CLT
03590068	LITCH	LITCH	1	N	P	83	02	29N	13E	MD	Johnston	2		ACTV	CLT
03590073	TSUJI	SUSAN	1	N	P	86	05	29N	12E	MD	TWI	2		ACTV	CLT
04990034	NODOC		1	N	P	88	12	42N	12E	MD	AL	1		ACTV	CLT

LEGEND
A - Api No.
B - Operator
C - Field
D - District
E - n/a
F - Mineral Rights; P=Private; F=Federal
G - Year Drilled
H - Section
I - Township
J - Range
K - Meridian
L - Well Name
M - n/a
N - n/a
O - Status
P - Type; NLT=Non-Commercial; CLT=Commercial

UURI FAX

UNIVERSITY OF UTAH
RESEARCH INSTITUTE
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108-1295

Phone: (801) 584-4437
FAX: (801) 584-4453

DATE: 2/25/93 PAGE 1 OF 6

DELIVER TO: Leslie Youngs FAX: 916 322-4862

COMPANY CA Div Mines + Geology

FROM: Howard Ross

M E M O R A N D U M

TO: Leslie Youngs
California Division of Mines and Geology
FAX (916)-322-4862
FROM: Howard Ross
UURI

DATE: February 25, 1993

SUBJECT: UURI Hardcopy, GEOTHERM Database

The UURI hardcopy of the California GEOTHERM database appears to be incomplete, but includes two types of entries which still may be of some help to you.

Record Type B (pages and numbers are identical)

Pgs.	0165-0377	Records	0165-0377
	0403-0797		0403-0797

GEOTHERM Resources File, Revision 8, Sec. C

Pgs.	0585-0643	Records	00297-00377
	0644-0677		00356-00389
	0721-0907		00433-00619

Several pages of the database, at a reduced scale (and missing a few lines from copying) are enclosed for you to compare to your data. We have been unable to locate any additional California GEOTHERM hardcopy, but have yet to examine our off-site records storage.

Please let me know if you would like to have our database shipped to you.

RECORD 00165

(DENTIFICATION
) NO.... 0076214
INDEX NO..
) TYPE..... B

REPORTER
NAME..... HITCHMAN, BRUCE A.
DATE..... 78/04
ORGANIZATION.. CALIF. DIVISION OF MINES AND G33-08-56N

4IC LOCALITY
?Y CODE..... US
'PROVINCE..... CALIFORNIA
JDE.....

COUNTRY NAME..... UNITED STATES

LONGITUDE..... 115-37-17W

4IP RANGE SECTION 1/4 1/4
13E 04 SW SE
:FERENCE: NILAND 7.5 MIN. QUAD.

[NFORMATION
..... 1372.5 M
:R SAMPLING TEMP.... 164.4 C
SAMPLE INFORMATION: JENNINGS SALTON SEA 38

NALYSIS W
:NCES: U.S.G.S. OPEN FILE (IMPERIAL VAL3EY, 1976

RECORD 00166

IDENTIFICATION
O NO.... 0047476
INDEX NO..
O TYPE..... B

REPORTER
NAME..... HIGGINS, CHRIS T.
DATE..... 78/04
ORGANIZATION.. CALIF. DIVISION OF MINES AND GEOLOGY

HIC LOCALITY
E TYPE..... SURFACE
OF SAMPLE SOURCE.. WARM SPRINGS
RY CODE..... US
/PROVINCE..... CALIFORNIA
UDE..... 37-30-11N

COUNTRY NAME..... UNITED STATES
COUNTY..... ALAMEDA
LONGITUDE..... 121-54-24W

HIP RANGE SECTION 1/4 1/4
01E 18 NW
EFERENCE: LIVERMORE 15 MIN. QUAD.

INFORMATION
ER SAMPLING TEMP.... 26.7 C
SAMPLE INFORMATION: ALSO KNOWN AS ALAMEDA WARM SPRINGS AND MISSION SAN JOSE HOT SPRINGS (JENNINGS'S SAN
E 2)

NALYSIS W
ENCES: USGS, WATER RESOURCES DIV. OPEN FILE REPORT: DATA FOR SPRINGS IN THE SOUTHERN COAST, TRANSVERSE, AND INSULAR RANGES OF CALIFORNIA

RECORD 00186

) IDENTIFICATION
)RD NO.... 0047630
SS INDEX NO..
)RD TYPE..... B

REPORTER
NAME..... HIGGINS, CHRIS T.
DATE..... 78/04
ORGANIZATION.. CALIF. DIVISION OF MINES AND GEOLOGY

APHIC LOCALITY
PLE TYPE..... SURFACE
E OF SAMPLE SOURCE.. WARM SPRING
NTRY CODE..... US
TE/PROVINCE..... CALIFORNIA
TUDE..... 36-38-25N

COUNTRY NAME..... UNITED STATES
COUNTY..... FRESNO
LONGITUDE..... 120-41-03W

SHIP RANGE SECTION 1/4 1/4
S 12E 08 NW SE
REFERENCE: CHOUNET RANCH 7.5 MIN. QUAD.

INFORMATION
TER SAMPLING TEMP.... 23.9 C
R SAMPLE INFORMATION: JENNINGS'S SANTA CRUZ 6

ANALYSIS W
RENCES: USGS, WATER RESOURCES DIV. OPEN FILE REPORT: DATA FOR SPRINGS IN THE SOUTHERN COAST, TRANSVERSE, AND
NINSULAR RANGES OF CALIFORNIA

MAL RESOURCES FILE (GEOTHERM) REVISION 8

C.- GEOTHERMAL WELL/DRILLHOLE
IDENTIFICATION
RD NO.... 0015936
S INDEX NO..
RD TYPE..... C

REPORTER
NAME..... TESHIN, VICTOR N.
DATE..... 77/09
ORGANIZATION.. USGS

PHIC LOCALITY
IERMAL FIELD-AREA.. BRAWLEY
NAME OR NUMBER.... RUTHERFORD 1
NY..... CHEVRON USA, INC.
RY CODE..... US
/PROVINCE..... CALIFORNIA

COUNTRY NAME..... UNITED STATES
COUNTY..... IMPERIAL

SHIP RANGE SECTION 1/4 1/4
14E 8

& MERIDIAN..... SAN BERNARDINO
LOCALITY INFORMATION: FR SW CORNER 899 FT N, 699 FT E.

ING & CASING
E STARTED..... 77/05/09
L STATUS..... SUSPENDED
L DEPTH..... 7930. FT
LHEAD ELEVATION.. -40. FT
ING: 13 3/8 IN CASING SET AT 1023 FT; 8 5/8 IN CASING SET AT 4744 FT; 6 5/8 IN LINER HUNG FROM 4530 - 7904 FT
SLOTTED INTERVALS).
NTS (GENERAL DESCRIPTION): DRILLING SUSPENDED 1977/06/04; ELEVATION MEASURED AT KELLY BUSHING

REFERENCE:
ENCE... MUNGER OILOGRAM

Facsimile

To: Mr. Howard Ross – UURI

Fax# (801) 584 – 4453

Date 02/18/93 | **Page 1 of:** 9

From:

DEPARTMENT OF CONSERVATION
DIVISION OF MINES & GEOLOGY

Name Les Youngs | **Fax#** (916) 322–4862

Regarding Low-Temperature Geothermal

- ☐ Please Call Me
- ☐ Please Fax Me
- ☐ Please Write Me
- ☐ No Reply Needed
- ☐ Urgent
- ☐ Important
- ☐ Confidential
- ☒ Routine

Message:

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
MS 08-38
DIVISION OF MINES AND GEOLOGY
801 K STREET
SACRAMENTO, CA 95814-3531

February 18, 1993

Mr. Howard Ross
University of Utah Research Institute
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108-12951

Dear Mr. Ross:

Re: Low-Temperature Geothermal Resources and Technology Transfer Program (California). A quarterly report.

The contract, number 1092-023(R), to provide a program of Low-Temperature Geothermal Resources and Technology Transfer between the Department of Conservation, Division of Mines and Geology (DMG) and the Oregon Institute of Technology (OIT) was entered into in late October, 1992. A minor contract amendment was processed in December 1992.

In accordance with provisions of the contract the OIT list "U.S. Cities With Geothermal Resource Potential - Collocated Less Than 5 Miles" was reviewed and a preliminary revision in table form of the California data was sent to Paul Lienau. I have subsequently met with staff of the California Energy Commission and the Department of Conservation, Division of Oil and Gas (DOG) for an additional co-review of the resource list. The finalized table (attached) contains 55 California cities/towns (with a total population of near one million) that are located near a geothermal resource. The editor of the "The Geothermal Hot-Line" magazine, that is published by the DOG, Geothermal Unit, would like to print the list of collocated California cities along with an article describing the DOE/GD Low Temperature Geothermal Project.

The availability of DMG computers and associated software for compiling and processing the California low-temperature data base has been assessed. An IBM PS/2 model 60 personal computer has been dedicated to the project. The attached peripherals include a modem, a 24" wide pen plotter, a Bernoulli Box disk storage unit, and a 36" wide digitizing tablet. A large library of software is available including LOTUS 1-2-3, QUATRO PRO, DBASE IV, WORD PERFECT, CPS/PC by Radian Corp., SmartWare II, etc. Other EDP facilities are available on a limited basis including timeshare with mainframe computers at the California State Teale Data Center.

We have recently obtained a Microfiche copy of the GEOTHERM file of California data.
Reference:

Bliss, J.D., 1983, California-Basic data for thermal springs and wells as recorded in GEOTHERM (Part A and Part B): U.S. Geological Survey Open-File Report 83-428A,B.

The file contains 1,535 records of hot water springs and wells in California.

We are searching published and unpublished documents for records of geothermal wells and springs not included in the GEOTHERM file. We are also inquiring into the availability of computerized hydrological data bases that may be of significant value to the project. We are currently attempting to have the EPA's "STORET" water well data file searched by temperature parameters. There are 55,000 records of California data to be searched.

Until last month (January, 1993) I was primarily assigned to the DMG's "Radon in Elementary Schools" project in order to timely fulfill previous contractual requirements. I am now assigned near full time to the low-temperature geothermal project for all of 1993. If I can be of any help to other participants in the project please do not hesitate to call on me.

Sincerely,

Leslie G. Youngs

Leslie G. Youngs
Geologist/Geophysicist

Enclosures

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (ft)	Flow (L/min)	TDS (mg/L)	Remarks
Canby	Modoc	41°27′	120°52′	450 (?)	92	Spring	1,250	900	Kelly Hot Spring.
Cedarville	Modoc	41°32′	120°10′	950	69	630	N/A	N/A	In the Surprise Valley geothermal area. Near geothermal springs and wells.
Clearlake	Lake	38°57′	122°38′	12,100	186	1,390	N/A	N/A	The Clear Lake geothermal region, north of The Geysers. Data for Sulphur Back well.
Colton	San Bernardino	34°04′	117°19′	41,350	51	850	N/A	N/A	Near the City of San Bernardino geothermal area.
Coso Junction	Inyo	36°03′	117°57′	30	174	2,100	N/A	N/A	Coso Hot Springs KGRA. Data is from exploratory drill hole.
Costa Mesa	Orange	33°38′	117°55′	97,400	218	8,330	N/A	N/A	Huntington Beach area where hot water is encountered in oil wells.
Desert Hot Springs	Riverside	33°58′	116°30′	12,300	70	100-250	N/A	N/A	More than 50 hot water wells in the area.
Eagleville	Modoc	41°19′	120°07′	185	59	Springs	500	370	Data for Menlo Baths Hot Springs.
El Centro	Imperial	32°48′	115°34′	32,650	180	1,500	N/A	14,000	Heber geothermal field, Imperial Valley.
Fort Bidwell (and Fort Bidwell Indian Reservation)	Modoc	41°51′	120°09′	230	92	884	1,500	N/A	In the Surprise Valley geothermal area.
Glamis	Imperial	33°00′	115°05′	N/A	71	679	N/A	N/A	Data is for Smith Brothers Well.

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (ft)	Flow (L/min)	TDS (mg/L)	Remarks
Heber	Imperial	32°44′	115°32′	2,586	180	Many Wells	N/A	14,000-20,000	Heber geothermal field, Imperial Valley.
Hemet	Riverside	33°44′	116°59′	38,000	59	130	N/A	380	Well is 6 miles south of Hemet.
Highland	San Bernardino	34°07′	117°12′	35,650	58	850	N/A	N/A	The City of San Bernardino geothermal area.
Huntington Beach	Orange	33°40′	117°59′	182,800	218	8,330	N/A	N/A	Hot water encountered in oil wells.
Johannesburg	Kern	35°22′	117°38′	300	116	774	N/A	N/A	Less than 5 miles west of the Randsburg KGRA. Data for Magma Power Co. well.
Kelseyville	Lake	38°59′	122°50′	2,861	64	488	1,500-1,900	N/A	Geothermal greenhouse/teaching facility 5 miles southeast of Kelyseville. Data for well "AG Park" 3.
Kings Beach	Placer	39°14′	120°02′	2,796	55	Spring	600	371	Data is for Brockway Hot Springs less than 1 mile to the southeast.
La Quinta	Riverside	33°41′	116°18′	11,950	83	358	290	N/A	Data for well 5S/6E-24N2S and located 3 miles north of La Quinta.
Lake City	Modoc	41°39′	120°13′	190 (?)	97	Springs	50	1,210	In the Surprise Valley geothermal area.
Lake Elsinore	Riverside	33°40′	117°20′	19,200	54	91	1,514	300	Many wells.
Lake Isabella	Kern	35°37′	118°29′	3,323	56	Springs	150	420	Scovern Hot Springs.

CALIFORNIA CITIES/TOWNS WITH GEOTHERMAL RESOURCE POTENTIAL
Resources (> 50°C) Collocated Less Than 5 Miles

L. Youngs, Division of Mines and Geology, February 1993

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (ft)	Flow (L/min)	TDS (mg/L)	Remarks
Alturas	Modoc	41°29′	120°32′	3,260	83	1,925	1,700	1,637	Data for well "AL" 2 supplying heat to local schools.
Bieber	Lassen	41°07′	121°08′	600 (?)	79	Spring	200	820	Data is for Bassett Hot Springs.
Big Bend	Shasta	41°01′	121°55′	150	82	Spring	340	1,940	Big Bend Hot Spring.
Bishop	Inyo	37°22′	118°24′	3,490	61	Springs	2,000	510	Keough Hot Springs approximately 7 miles south of Bishop.
Boyes Hot Springs	Sonoma	38°19′	122°29′	5,937	51	462	N/A	N/A	B.H.T. of 51°C at 462′ in abandoned well at Boyes Hot Springs site.
Brawley	Imperial	32°59′	115°32′	19,450	200	2,500	N/A	100,000	North Brawley Geothermal Field, Imperial Valley.
Bridgeport	Mono	38°15′	119°14′	900	82	Spring/Wells	50	4,320	Travertine Hot Springs/Magma Power Co. Well/Buckeye Hot Springs.
Calexico	Imperial	32°40′	115°30′	19,200	180	1,500	N/A	14,000-20,000	Heber geothermal field, Imperial Valley.
Calipatria	Imperial	33°08′	115°31′	2,700	300	1,500	N/A	280,000	At the southeast of the Salton Sea geothermal field.
Calistoga	Napa	38°35′	122°35′	4,500	137	46-600	1,476	660	Well over 100 geothermal wells in Calistoga.

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (ft)	Flow (L/min)	TDS (mg/L)	Remarks
Lee Vining	Mono	37°58'	119°07'	900	54	4,000	N/A	N/A	The Mono Basin area.
Litchfield	Lassen	40°23'	120°23'	350	79	1,458	3,785	N/A	Litchfield geothermal field. Operating geothermal district heating system. Data for well "Johnston" 1.
Lower Lake	Lake	38°55'	122°36'	1,217	52	Spring	50	1,600	The Clear Lake geothermal region, north of The Geysers. Data is for Seigler Springs.
Loyalton	Sierra	39°40'	120°14'	930	51	400	20	N/A	The Sierra Valley geothermal area.
Mammoth Lakes	Mono	37°39'	118°58'	4,900	79	2,177	N/A	N/A	Geothermal district heating system currently being developed. Data for well "Ohwell" 1. Near the Casa Diablo geothermal field.
Markleeville	Alpine	38°42'	119°47'	100	64	Springs	400	1,720	Grovers Hot Springs.
Middletown	Lake	38°45'	122°37'	2,000	73	Springs	250	400	At the southeast of The Geysers geothermal field. Data for Castle Hot Springs.
Newport Beach	Orange	33°37'	117°56'	67,300	218	8,330	N/A	N/A	Huntington Beach area where hot water is encountered in oil wells.
Niland	Imperial	33°14'	115°31'	1,183	345	8,100	N/A	up to 300,000	The Salton Sea geothermal field.
Ojai	Ventura	34°27'	119°14'	7,650	51	Springs	27+	1,110	Vickers Hot Springs and Stingleys Hot Springs are approximately 5 miles northwest of Ojai.

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (ft)	Flow (L/min)	TDS (mg/L)	Remarks
Palm Desert	Riverside	33°43′	116°23′	23,750	83	358	290	N/A	Data is for well 5S/6E-24N2S. Located 4 miles east of Palm Desert.
Randsburg	Kern	35°22′	117°39′	280	116	774	N/A	N/A	Less than 5 miles west of the Randsburg KGRA. Data for Magma Power Co. well.
Red Mountain	San Bernardino	35°21′	117°36′	200	116	774			Less than 5 miles west of the Randsburg KGRA. Data for Magma Power Co. well.
San Bernardino	San Bernardino	34°07′	117°18′	171,600	58	850	N/A	N/A	The City of San Bernardino has established a geothermal heating district using 58°C water from wells.
San Luis Obispo	San Luis Obispo	35°17′	120°39′	42,800	57	46	N/A	815	Ontario Hot Springs (well) approximately 6 miles south of San Luis Obispo.
Susanville	Lassen	40°25′	120°39′	7,325	79	927	1,325	N/A	Operating geothermal district heating system. Data is for City of Susanville well "Susan" 1.
Temecula	Riverside	33°29′	117°09′	27,400	56	Springs	285	750	Lake Elsinore geothermal area. Data for Murrieta Hot Springs.
Trona	San Bernardino	35°46′	117°22′	1,400	58	600	N/A	53,900	Data for well 24S/43E-9P1 M approximately 6 miles north of Trona in Inyo County.
Twentynine Palms	San Bernardino	34°08′	116°03′	11,950	63	N/A	N/A	1,000	At least half a dozen known hot water wells (50° to 60°C) near Twentynine Palms.
Warner Springs	San Diego	33°17′	116°38′	30	56	Springs	500	244	About a dozen springs/wells in creek bed.
Westmorland	Imperial	33°02′	115°37′	1,400	N/A	N/A	N/A	N/A	Westmorland geothermal area, Imperial Valley.

City	County	Approx. Lat.	Approx. Long.	Population	Res. Temp. (°C)	Depth (ft)	Flow (L/min)	TDS (mg/L)	Remarks
Widomar	Riverside	33°36′	117°16′	10,411	52	Springs	0	300	Lake Elsinore geothermal area. Data for Elsinore Hot Springs.
Winchester	Riverside	33°42′	117°05′	1,689	49	20	N/A	2,260	Several warm water wells in area.

ADDENDUM TO STANDARD CONTRACT AGREEMENT
for
STATE GEOTHERMAL ENERGY RESEARCH,DEVELOPMENT,
AND DATABASE COMPILATION

between

THE OREGON STATE SYSTEM OF HIGHER EDUCATION
OREGON INSTITUTE OF TECHNOLOGY

and

THE STATE OF CALIFORNIA
DIVISION OF MINES AND GEOLOGY

STATEMENT OF WORK

1.0 INTRODUCTION

The United States Department of Energy - Geothermal Division (DOE/GD) supports the development of indigenous and environmentally advantageous energy alternatives to the traditional fuels. There is a very large, nearly unused supply of low- and moderate-temperature geothermal resources in the United States that could be brought on line over the next decade. The increased use of Geothermal Heat Pumps (GHPs) could also reduce the need for traditional fossil fuel consumption for space heating and cooling.

The U.S. Congress has appropriated funds for a program of Low-Temperature Geothermal Resources and Technology Transfer and DOE/GD has funded EG&G, Idaho to establish contracts with the Oregon Institute of Technology - Geo-Heat Center (OIT-GHC), the Idaho Water Resources Research Institute (IWRRI) and the University of Utah Research Institute (UURI) to implement this program.

Important parts of this program are to bring the inventory of the nation's low- and moderate-temperature resources up to date, to complete a collocation study of these resources and communities and other potential users, and to collect and disseminate information necessary to expand the use of GHPs. OIT-GHC will have the lead role in the collocation study and will establish subcontracts with the state resource teams. UURI will work with the State Teams on gathering, documenting, and assembly of low- and moderate-temperature hydrothermal resource data and will assist in technical monitoring of the State Team efforts and publications. IWRRI will be responsible for establishing the hydrothermal resource data for Idaho and for performing geothermal reservoir evaluations throughout the western United States.

The technical tasks described herein may be considered Phase I of the Low-Temperature Geothermal Resources and Technology Transfer program. If Phase I proves successful, and additional funds are appropriated by Congress, the program may be expanded and continued. Phase II would likely include detailed resource evaluations of priority areas identified in Phase I.

Funding for the Low-Temperature Geothermal Resources and Technology Transfer Program is limited, and the success and continuation of the program is dependent upon a productive Phase I effort. Participating State Teams are encouraged to seek state or organization cost shares (in cost or in-kind) to enhance this contract effort.

2.0 TECHNICAL TASKS

The following technical tasks will be accomplished under this subcontract.

2.1 Complete an updated inventory of low- and moderate-temperature resources for the State of California, current to June 1, 1992. Review drilling records and other information to identify new resources and verify temperatures and flow rates of springs and wells which may have changed substantially since the previous statewide geothermal resource inventory. Identify geological, geophysical, geochemical, and hydrologic studies which relate to these resources. The minimum temperature for a low-temperature resource is defined to be 10°C above the mean annual air temperature at the surface and should increase by 25°C/km. Occurrences to 150°C will be included.

2.2 Conduct a fluid geochemistry study of the more important resource areas for which existing data are questionable or unavailable. UURI will provide up to ten (10) quantitative fluid chemical analyses for each state in support of this study.

2.3 Complete a computer database listing compatible with Lotus 123 format tabulating for each occurrence: name, location (T,R,S), county, longitude, latitude, depth, flow, temperature, chemistry, and other data as appropriate and available.

2.4 Review OIT-GHC geothermal resource and demographic data for the State of California for accuracy and completeness, as part of the collocation study.

2.5 Assist OIT-GHC, UURI, and IWRRI in studies to prioritize low- and moderate-temperature resource areas for new development. Develop conceptual geologic models and groundwater data for selected resources.

3.0 REPORTS, DATA, AND OTHER DELIVERABLES

3.1 A geothermal database listing in hardcopy and diskette form will be submitted to UURI. The listing will include all known low- and moderate- temperature spring and well occurrences in the State of California. Principal facts will include location, depth (well), flow rate (if known), etc.

3.2 Letter reports and memoranda reviewing collocation data and priority rankings will be submitted to OIT-GHC and UURI.

3.3 A final summary report, not to exceed 50 pages, describing all tasks and their results, and documenting any new temperature, geologic, geochemical or geophysical data will be submitted to UURI, OIT-GHC, and IWRRI. This report may incorporate interim letter reports and memoranda as appendices. The report will include a geothermal resource occurrence map of the state, black and white, scale 1:1,000,000 or acceptable alternative.

3.4 Interim progress reports will be submitted to UURI and OIT quarterly.

4.0 SCHEDULE OF PERFORMANCE AND REPORTING

4.1 The period of performance for this agreement will terminate December 31, 1993, unless modified by letter agreement and signed by the California Division of Mines and Geology, OIT-GHC, and UURI.

4.2 A review of the OIT-GHC collocation study will be completed and a letter report or memorandum of comment submitted to OIT-GHC and UURI within one month after receipt of the draft document from OIT-GHC.

4.3 A preliminary database listing of geothermal resource occurrences will be submitted to UURI within four months after the execution of this agreement.

4.4 A final database listing of geothermal resource occurrences will be submitted to UURI within twelve months after the execution of this agreement.

4.5 A final report documenting all new data and activities completed under this agreement will be submitted to UURI not later than December 31, 1993.

5.0 RESPONSIBLE PARTIES

5.1 The Principal Investigator for this agreement will be Leslie G. Youngs, California Division of Mines and Geology.

5.2 The Technical Project Managers for this agreement will be Howard P. Ross, UURI and Paul J. Lienau, OIT-GHC.

5.3 The Contracting Officer for this agreement will be Douglas Yates, OIT.

6.0 FUNDING

This contract agreement provides for funding not to exceed $55,000.00 for the completion of all technical tasks and submittal of all required deliverables.

UNIVERSITY OF UTAH RESEARCH INSTITUTE
UURI
EARTH SCIENCE LABORATORY
391 CHIPETA WAY, SUITE C
SALT LAKE CITY, UTAH 84108—1295
TELEPHONE 801-524-3422

June 19, 1992

Mr. Paul J. Lienau
Geo-Heat Center
Oregon Institute of Technology
3201 Campus Drive
Klamath Falls, OR 97601

Dear Paul:

Enclosed is a letter from John Alfors, Mineral Program Manager, California Division of Mines and Geology, with supporting budget, audit, and resume information for the California Low-Temperature subcontract. Leslie Youngs will be the Principal Investigator for this subcontract.

The enclosed budget information may be insufficient in two areas: agency travel policy; and agency negotiation agreement that addresses indirect rates. John was unable to get copies of any formal documents prior to sending these materials. In response to my call earlier today, John will try to get written statements regarding travel and indirect rates. He or I will FAX these to you as soon as they are available.

If you have additional questions regarding this subcontract please feel free to contact John Alfors or Les Youngs directly.

Sincerely,

Howard

Howard P. Ross
Project Manager

encl.

PROPOSED BUDGET

PERSONAL SERVICES		
Salaries & Wages	$ 33,491	Note 1
Personal Benefits (33%)	11,052	Note 2
PERSONAL SERVICES TOTAL	44,543	
OPERATING EXPENSES AND EQUIPMENT		
General Expense	400	Note 3
Printing		
Communications		
Postage		
Insurance		
Travel In State	450	Note 4
Travel Out of State		
Training		
Facilities Operations		
Utilities		
Consulting & Professional Services		
Interdepartmental		
External		
Data Processing	400	Note 5
Minor Equipment		
Equipment		
Vehicle Operations	46	
OE & E TOTAL	1,296	
TOTAL OE & E AND PERSONAL SERVICES	45,839	
Add Overhead (20%)	9,161	Note 6
TOTAL FISCAL IMPACT ESTIMATE	$ 55,000	

Notes:

1. Associate Engineering Geologist $4,313/month for 7 months = $30,191. There are 173.33 hours in an average month, so the hourly rate would be $24.89 and the number of hours is 1,213.

   Senior Drafting Technician $3,300/month for 1 month = $3,300. The hourly rate would be $19.04 and the number of hours would be 173.33 hours.

STATE OF CALIFORNIA - THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
MINERAL RESOURCES DEVELOPMENT PROGRAM
801 K Street, Suite 800, Mail Stop 08-38
Sacramento, California 95814-3531
Phone (916) 327-0791
Fax (916) 327-1853

June 3, 1994

University of Utah research Institute
ATTN: Howard Ross
391 Chipita Way, Suite C
Salt Lake City, Utah 84108-12951

Dear Howard:

Enclosed is a preliminary copy of the new California map of geothermal springs and wells that was generated from our updated computer database. The computer database is on the enclosed diskette in Lotus 1-2-3 format. The worksheet file is CALHOT.WK1 and the ASCII file is CALHOT.PRN.

I am interested to know if you have any suggestions or comments that I might be able to incorporate into the map or database before their finalization. I know the deadline is very near, but I might have time for some recommended additions or changes. I am currently drafting the text portion of the report. The maps, tables, bibliography, figures, and appendixes are completed. The total completed report should soon follow.

Thank you for your kind patience and much appreciated support.

Sincerely,

Fri - 1 July '94

Leslie G. Youngs

Leslie G. Youngs
(916) 322-8078