Geothermal Energy Resources
of the Western United States

Locations of high-temperature hydrothermal convection systems (mainly thermal springs and wells). Assumed average reservoir temperatures (T) are shown as follows:

- T≥ 170°C
- 170°C>T≥ 135°C
- 135°C>T≥100°C

Data from D.E. White and D.L. Williams, Editors, "Assessment of Geothermal Resources of the United States – 1975," U.S. Geological Survey Circular 726 (1975).

Low-temperature thermal spring locations. In general these are springs with surface temperatures of 18°C or greater and with average reservoir temperatures, where estimated, of less than 100 °C. Well data are not given. Data compiled for NGSDC by George W. Berry, consulting geologist (Boulder, Colorado).

Heat flow locations and values (given in microcalories/cm²-sec). Data compiled by J.H. Sass, W.H. Diment, A.H. Lachenbruch, B.V. Marshall, R.J. Monroe, T.H. Moses, Jr., and T.C. Urban, "A New Heat-Flow Contour Map of the Conterminous United States," U.S. Geological Survey Open-File Report 76–756 (1976).

Areas classified as Known Geothermal Resources Areas (KGRA). (See L.H. Godwin, L.B. Haigler, R.L. Rioux, D.E. White, L.J.P. Muffler, and R.G. Wayland, "Classification of Public Lands Valuable for Geothermal Steam and Associated Geothermal Resources," Geological Survey Circular 647 (1971)]. Data taken from U.S. Geological Survey Conservation Division maps (scale 1:500,000). In general, boundaries shown are those in existence in mid-1976 and are subject to change.

Areas classified as being valuable prospectively for geothermal steam and associated geothermal resources. Reference and source of data same as for KGRA's, above. Likewise, in general, boundaries shown are those in existence in mid-1976 and are subject to change.

Earthquake epicenters. Epicenters, for the area of the map between 30° N and 50°N, in the file of NGSDC (as of mid-1976) are presented. Epicenters shown are for events from the early 1900's through 1975, although most are from the time period after 1950. Data sources include NOAA, U.S. Geological Survey, California Institute of Technology, and the University of California at Berkeley.

Major faults. Data from "Geologic Map of the United States," published by the U.S. Geological Survey (1974).

Volcanoes and volcanic cones of Quaternary and late Tertiary age. Data from "Tectonic Map of the United States," published by the U.S. Geological Survey and the American Association of Petroleum Geologists (1962).

Selected cities shown on the basis of population, geographical distribution, and proximity to geothermal resources areas:

Cities with populations greater than 100,000
■ SAN FRANCISCO

Cities with populations less than 100,000
▪ Susanville

Scale 1:2,500,000
1 inch equals approximately 40 miles

Albers Equal Area Projection

GL01418_0008

Map produced by Paul J. Grim with assistance of Joann M. Clark and Leslie D. Morris.

Most data shown on map are available from NGSDC in digital format. For information contact:
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