GEOTHERMAL RESOURCES AND UTILIZATION IN NEW MEXICO

Yes, New Mexico is part of the United States; however, the state license plates make sure by stating: "New Mexico, USA." We tend to think of the state as desert and cactus, with Santa Fe and Taos as "neat" vacation spots. But, the state has much more -- extensive and well utilized geothermal resources. Most of the geothermal publicity has been focused on Fenton Hill, site of the Hot Dry Rock (HDR) work from the early-1970s to the middle-1990s, and Valles Caldera, an industry exploration site that was not brought to production. However, two of the nation's largest geothermally-heated greenhouse operations are located in the state (Burgett and Masson), along with a major aquaculture raising facility (AmeriCulture), and the heating of a university campus (New Mexico State University). Spas and resorts heated with geothermal are also scattered around the state. The majority of these geothermal projects are described in articles in this issue of the Quarterly Bulletin.

Two U.S. Department of Energy (USDOE) national laboratories: Sandia National Laboratories in Albuquerque and Los Alamos National Laboratories near Santa Fe, have both been actively involved in geothermal R&D, especially in developing high-temperature logging tools and the HDR work at Valles Caldera. The Southwest Technology Development Institute, (SWTDI) on the New Mexico State University campus has been actively involved in geothermal technical assistance for over 20 years, under the leadership of Dr. Rudi Schoenmackers, and have an experimental greenhouse and aquaculture facility on campus to allow potential developers to "get their feet wet" before developing a large commercial-sized project. They have been successful in getting several commercial operations going in the state, as well as having part of the New Mexico State University campus supplied with geothermal heat.

More recently, in April of this year, a Geothermal State Working Group was established under the USDOE *GeoPowering the West* initiative. The local contacts for this group are Roger Hill at Sandia National Laboratories (rrhill@sandia.gov) and Chris Wentz, Energy Conservation Division, NM Energy, Minerals and Natural Resources Department (cwentz@state.nm.us). A key source of information was unveiled at this meeting: a new map of the New Mexico Geothermal Resources (presented on the cover of this issue of the Quarterly Bulletin). This 28 by 33 inch map, prepared by SWTDI, and the Idaho National Engineering and Environmental Laboratory (INEEL) for the USDOE, shows not only the various geothermal uses in the state, but also public land ownerships, and areas that have potential for geothermal electric generation and direct use applications. Copies can be obtained at INEEL from Patrick Laney (email: ptl@ineel.gov; phone: 208-526-7468) or on-line at: geothermal.inel.gov/images/nm_geothermal_map.jpg.

In support of geothermal energy development in New Mexico, Governor Gary E. Johnson on April 2, 2002, proclaimed the 4th of April as "GEOTHERMAL ENERGY: HOT NEW OPPORTUNITIES FOR NEW MEXICO DAY." This proclamation stated in part: "The State of New Mexico has been blessed with an abundance of geothermal energy resources which are known to exist in 20 of New Mexico's 33 counties, and New Mexico's substantial geothermal resources are suitable for both electric generation and a variety of direct-use applications."

The following articles are based on several field trips that the editor has taken to New Mexico--the most recent this past summer, arranged by James Witcher of SWTDI. Most of the information and especially the geologic descriptions are from Jim's extensive knowledge of the geothermal resources of the state. His enthusiasm and love of geology, has done much to help promote geothermal development in the state. My thanks to him, Rudi Schoemackers, Damon Seawright, Dale Burgett, Allen Campbell, and the people of Truth or Consequences for their assistance in preparing this issue of the Quarterly Bulletin. — The Editor