

GEOHERMAL RESOURCES OF ARMENIA

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Key Words:

Armenia, Caucasus, geothermal resources, low temperature, direct use

ABSTRACT

Although no high-temperature geothermal resources have been identified in the Republic of Armenia, numerous low-temperature resource areas (cooler than 100°C) are present, mostly within a belt of Quaternary volcanism and elevated heat flow that trends northwest-southeast through the central part of the mountainous country.

GeothermEx, Inc. has carried out a review and investigation of the geothermal resources of Armenia as part of an effort funded by the U.S. Agency for International Development to rehabilitate the country's energy sector. The location and extent of some resources should make them suitable for a variety of low-temperature applications such as space heating, greenhouse heating and other agricultural applications, and expanded recreational use.

Three areas (Jermuk, Ankavan and the Vorotan River Valley) have been identified as having the greatest immediate potential for commercial geothermal applications; thermal areas at Arzakan, Gyumri and Martuni are also of potential commercial interest. Further exploration in the central volcanic zone of Armenia is warranted in an effort to expand the identified geothermal resource base. Zones of young volcanism in the Jermakhpur area, the Jermuk basin, the Gegam Mountains and the Vardenis Mountains are attractive targets for new exploration.

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