

## GEOHERMAL HOT LINE

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### WORLD'S DEEPEST STEAM WELL

Dan A. McMillan, Jr., President of Thermal Power Company, recently announced the completion of the deepest steam well in the world--9,029 feet--at The Geysers field in Sonoma County.

The well is capable of producing 190,000 pounds of steam per hour, sufficient to generate 10,000 kilowatts of electric power per hour. This amount of steam is approximately equal to 350 barrels of oil used daily to make steam in fossil fuel plants.

Pacific Gas & Electric Company currently has four power units in operation at The Geysers with a combined generating capacity of 82,000 kilowatts. Power plants 5 and 6 should be on the line by the time this issue of the Hot Line is mailed, bringing the total output of The Geysers up to 192,000 kilowatts.

### POTENTIAL GEOTHERMAL AREA NEAR ENSENADA

The SAN DIEGO UNION reported that a "potential steam field" has been discovered at Punta Banda, 10 miles south of Ensenada. Geologists have been encouraged by initial surveys and have recommended a major investigation.

Surface expression of thermal activity in the area consists of a few hot springs, a steam-heated beach and, a few hundred feet offshore, an underwater, gaseous hot spring where temperatures as high as 217°F have been recorded.

Dr. Robert McEuen, Geophysicist and Associate Professor of Geology at San Diego State College, has been retained as a consultant to a study begun by the University of Mexico and the Instituto de Investigaciones Oceanologicas, a division of Baja California's Universidad Autonoma.

### GEYSERS FIELD TRIP

On August 18, 1971, members of the state's Environmental Quality Study Council made a field trip to The Geysers, in Sonoma County, in order to gain some first-hand knowledge of geothermal development prior to their regular meeting which took place in Lakeport on August 19.

The tour was conducted by Dr. Carel Otte, Union Oil Company of California, who was assisted by several geologists and engineers from Union Oil Company of California and Pacific Gas & Electric Company and included stops at power plants, producing wells, waste water injection facilities, and a well under long-term production test.

It was apparent that Union has expended considerable money and effort in finding solutions to problems of noise and waste disposal and that P.G. & E. has made real progress in reducing the visual impact of its power plant installations. Dr. Otte

told the visitors that both Union and P.C. & E. were working on the problem of non-condensable gases (primarily H<sub>2</sub>S) and that he expected some significant improvements in the near future.

Also in attendance were Dr. Robert Rex, University of California at Riverside, members of the Lake County Board of Supervisors, a delegation from the Lake County Geothermal Control Council, and several representatives of state government.

#### FEDERAL EXPLORATION, DEVELOPMENT, AND PRODUCTION REGULATIONS

The Department of Interior's proposed geothermal regulations, published in the "Federal Register," July 23, 1971, are now available for inspection at all Division of Oil and Gas and Division of Mines and Geology offices throughout the state. The Department's intent in publishing this preliminary copy is to allow interested parties to submit written comments, suggestions, or objections with respect to the proposed regulations. Comments must be submitted no later than September 21, 1971, to:

Reid T. Stone  
Geothermal Coordinator  
Department of the Interior  
Room 7000, Interior Building  
Washington, D. C. 20240

#### PUBLICATIONS OF INTEREST

##### U.S.G.S.

The U.S.G.S. has recently released Geological Survey Circular 647 entitled, "Classification of Public Lands Valuable for Geothermal Steam and Associated Geothermal Resources." This 18-page booklet explains the standards used by the U.S.G.S. to classify public lands for retention and for competitive leasing of geothermal steam and associated geothermal resources. It is available without charge from the U. S. Geological Survey, Washington, D. C. 20242.

The booklet may also be obtained, over the counter only (no mail orders), from the U.S.G.S. Public Inquiries offices at the following addresses:

504 Customs House  
555 Battery St.  
San Francisco, CA 94111

763 Federal Bldg.  
300 N. Los Angeles St.  
Los Angeles, CA 90012

8102 Federal Office Bldg.  
125 S. State St.  
Salt Lake City, Utah 84111

678 U. S. Courthouse Bldg.  
920 W. Riverside Ave.  
Spokane, Wash. 99201

##### France

Dr. Giancarlo Facca has brought our attention to the May, 1971, issue of "Annales des Mines," the French monthly review of the extractive industries. This issue focuses on geothermal energy and includes articles on geothermal prospecting techniques, geophysics, geochemistry, and aerial infra-red radiometry. It also contains articles that discuss geothermal research and exploration in Guadalupe, Turkey, and Ethiopia and the use of natural hot water for central heating of a group of 3,000 dwellings in the outskirts of Paris. For more information, write to: Compagnie Française D'Editions, 40 rue de Colisee, Paris.

PUBLIC HEARING ON NOISE POLLUTION

The Environmental Protection Agency will hold an open public hearing on noise pollution in San Francisco, September 27, 28, and 29, 1971. The hearing will take place at the Jack Tar Hotel from 9 a.m. to 5 p.m. each day. Participation by the public is desired to obtain information about effects of noise, noise control, research, legislation, and enforcement.

For anyone wishing to testify, additional information may be obtained by calling (415) 556-5876 or writing to:

Environmental Protection Agency  
760 Market St.  
San Francisco, CA 94102

SACRAMENTO

SB 834, Alquist - This bill, which appropriates \$100,000 to finance a study of geothermal power production, passed the Senate 26-7 and has been sent to the Assembly.

AB 2162, Seeley - This bill, which changes several sections of the Public Resources Code dealing with the regulation of geothermal operations, has passed the Assembly and is scheduled for a hearing by the Senate Natural Resources and Wildlife Committee.

EXPLORATORY ACTIVITY, STATUS REPORT

Mono Lake

Geothermal Resources International, having negotiated all the twists and turns of the many governmental agencies involved, expects to begin drilling operations on September 11, 1971.

Getty Oil Company has filed with the Division of Oil and Gas a notice of intention to drill a geothermal well on the north shore of the lake near Black Point. Getty's first hearing before the County Planning Commission is scheduled for September 14, 1971.

Lake County

On September 7, 1971, the Lake County Board of Supervisors announced its decision on Eureka Magma Explorer's application for a permit to drill exploratory wells near Mt. Konotti. The board allowed Eureka to drill three wells on any of five proposed sites. The effective date of the permit will probably be September 16, 1971, the next scheduled meeting of the Planning Commission.

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Direct all correspondence to:

Geothermal Hot Line  
Division of Oil and Gas  
1416 - 9th Street, Room 1316  
Sacramento, CA 95814

If you wish to submit a newsworthy item, please make it as concise and complete as possible and include your name, address, and phone number.

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ERRATA

The U.S.G.S. has brought to our attention the following discrepancies in the maps printed in the "Special K.G.R.A. Issue." Corrected boundaries are indicated by a dashed line (-----) and lines to be deleted are also indicated (\*\*\*).

