GL05160

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(I have orig in files)

March 9, 1979

Duncan Foley
ESL/UURI
391-A Chipeta Way
Salt Lake City, Utah 84108

Duncan,

Enclosed are some news reports of the Wyoming hydrothermal project. These two basic stories were carried by many papers in the state. In addition, Ed was interviewed by two Laramie and two Casper radio stations. Plus we have been asked to participate in some radio talk shows and tape a T.V. interview.

This attempt at publicizing the project has been successful so far. People have been made aware of us and are beginning to contact us. Two of the more interesting contacts have been by the Wyoming Municipal Power Agency who stated an interest in our work, and by a rancher near Gillette who had a possible small resource. This rancher has permission to use water from a small oil company's water flood injection system for a small stock watering tank. Since the injection water is 44°C, he hopes to circulate it around the tank to keep the water in the tank ice-free. Presently, the rancher is determining water quality to find out if the water is usable for livestock.

I have been wondering if my phase zero report was satisfactory. I realize that it was rather brief, but I purposefully kept it that way. If you feel that some of the gaps need to be filled in, or it needs revision, please let me know.

Concerning the course you will be teaching in Yellowstone, how soon should one register? I am definitely planning on taking the course and want to make certain that things are organized as soon as possible.

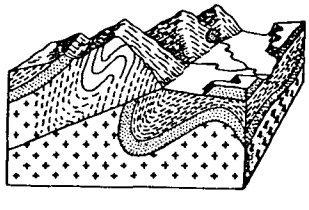
During the recent meeting in Salt Lake you mentioned there was a place where out of print U.S.G.S. Professional Papers could be purchased. Could you please send me the name, address, and phone number of that organization.

I feel that you did a good job organizing and running the Salt Lake meeting. Especially informative and enjoyable for me was the field trip to the Raft River site.

Sincerely,
Hank

Henry P. Heasler
Co-Investigator
Wyoming Hydrothermal Assessment

HPH/eh



University geologist looking for hot water

LARAMIE, Wyo. (AP) — University of Wyoming geologist Edward Decker is in hot water.

Decker is directing a study funded by the federal Department of Energy. The most suitable area — Yellowstone National Park — is off limits for the study, but Decker says the state has promising hydrothermal locations scattered from Saratoga through the Big Horn Basin to Cody and across central Wyoming from Auburn in the Star Valley to Dubois and the Casper and Douglas areas.

"Initially our objectives will be to identify and determine the extent of known and suspected hydrothermal sources," Decker said. "Preliminary studies will center on a dozen or more hot spring areas and by researching or actually logging oil wells or mining drill holes, to locate other areas for further study."

The DOE has provided nearly $100,000 for the first phase of the study. The second phase of what is potentially a three-year program will be to determine water temperatures, chemical contents, rate of flows, depths at which sources can be tapped and where tapping is feasible, he said.

"The ultimate objectives are to pinpoint all the locations in the state where hydrothermal resources can be used for practical applications, such as space heating, either to supplement or totally replace fossil fuel use," Decker said.

Most of the state's hydrothermal resources are below 90 degrees. But Decker say even these, "while not suitable for large scale power generation projects, can be used for a broad range of direct heat applications, such as home heating.

As an example, Decker said his research group was asked by a Big Horn Basin barley growers' association to provide data on the feasibility of using hydrothermal energy in a commercial malting plant.

From Gillette News Record Feb. 23, 1979

Triangle Review (Fort Collins) Feb. 28, 1979

Wyoming trying to get into hot water

LARAMIE—University of Wyoming personnel have just begun the first phase of a program which could, within a few years, provide data for utilization of the state's hydrothermal (natural hot water) resources for commercial or residential purposes.

The project, directed by Edward R. Decker, UW professor of geology, is one of a number of such state cooperative programs, either active or being considered in the Rocky Mountain / Plains states, and is funded for the first year by a grant of nearly $100,000 by the Department of Energy (DOE).

The UW study, Decker says, is the only one of these cooperative programs being undertaken by an academic institution and will cover all of Wyoming, exclusive of the Yellowstone National Park area.

Hydrothermal features, he explains, are free-flowing springs or underground reservoirs (often at great depths) which can be heated to varying temperatures by volcanic activity or other heat sources in the earth's crust.

"Initially, our objectives will be to identify and determine the extent of known and suspected hydrothermal sources," Decker says. "Preliminary studies will center on a dozen or more hot spring areas and, by researching or actually logging oil well or mining drill holes, to locate other areas for further study."

The second phase of what is potentially a three-year program, funded at approximately the same $100,000 level annually, will be to quantify (largely through on-site studies) the hydrothermal features identified — determine water temperatures, chemical content, rate of flow, depths at which the sources can be tapped, and in which areas such tapping is feasible.

"The ultimate objectives are to pinpoint all the locations in the state where hydrothermal resources can be used for practical applications, such as space heating, either to supplement or totally replace fossil fuel use," Decker notes.

Wyoming has a number of promising hydrothermal locations scattered from Saratoga northward through the Big Horn Basin to Cody, and across central Wyoming from Auburn in the Star Valley to Dubois to the Casper and Douglas areas. Others in the extreme northeast and other parts of the state may be revealed as the program develops.

Most of the state's known hydrothermal resources are of the "low temperature" variety—below 90 degrees C. (194 degrees F.), but, Decker says, even these, "while not suitable for large scale power - generation projects, can be utilized for a broad range of direct - heat applications (such as home heating) with adequate planning prior to construction."

As one example, Decker and his research group have been asked by a Big Horn Basin barley growers' association to provide data on the feasibility of using hydrothermal energy in a commercial malting plant.

"Heat values in natural hot water fall off rapidly as it is moved from the source, either vertically from below ground to the surface, or horizontally after it reaches the surface. This places limitations on the ways such sources might be utilized.

"Factors which have to be given consideration are temperatures (those from 122 degrees F. and up are considered useful), depth of the sources, and their locations. Chemical content is another factor, since water with a high content of dissolved solids might clog a direct-heat system in days or hours," Decker points out.

"The first two phases of this study, determining the locations and the exact characteristics of these sources, will provide potential users with the necessary data for proper planning, things such as plant or home location, type of system to be used, and so on. Disseminating this information and providing recommendations for use of these hydrothermal resources will probably constitute the final phase of the project."

Decker is being assisted in the program by Henry P. Heasler, a former Powell resident employed by the UW geology department as a research associate.