

**GEOHERMAL BRANCH**

**INTER-OFFICE MEMORANDUM**

SUBJECT: Hillsboro, New Mexico (Project 1124),  
Drilling Planned by Sierra Resources, Inc.

DATE: March 30, 1981

TO: H. J. Olson

cc: W. Lodder, W. M. Dolan,  
H. D. Pilkington,  
W. C. Huntsman,  
W. Merrill, W. Reininger

FROM: A. E. Shenker

*Pat Sanchez (505) 293 2831  
292 1934  
answering service 848 9214*

It was recently brought to my attention by Bill Reininger that Vernon Cunningham of Hillsboro has leased some land for mineral exploration to Sierra Resources, Inc. of Albuquerque. Since a portion of this land is contiguous with the AMAX geothermal leases in the area, Carl Robinson of Sierra called to make sure there are no conflicts. In the course of his conversation with Bill, Robinson mentioned that Sierra is planning a drilling program in Warm Springs Canyon this year.

On March 20, I met with Carl Robinson and Pat Sanchez (president of Sierra) in Albuquerque and discussed the possibility of AMAX gaining information from the proposed boreholes. They were quite receptive to AMAX involvement. I offered two ways in which AMAX might compensate Sierra for access to their drillholes: 1) a straight cash payment on a per hole basis, or 2) arranging downhole logging of some or all drillholes provided encouraging temperatures or gradients are observed in initial thermal measurements. Both Robinson and Sanchez were quite interested in the logging concept.

Sierra is planning an initial program of approximately ten boreholes (2 1/2" diameter, core) averaging 500 feet in depth. Drilling of these holes will be with a drill rig Sierra is planning to purchase. There is also a strong possibility that Sierra will take a larger rig on contract to drill one or two deeper tests (~2,000 feet, also cored).

The area where Sierra is planning their drilling coincides well with the area of AMAX interest (e.g. proximal to Cement Pool Spring and to the southeast of the spring following the major structure).

*Call Pat Oct 1 - maybe will have drill available  
toward end of November  
may come to dinner on couple of  
weeks - told him Oct 10 best week for us*

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Sierra Resources has no geologist at present and plans to employ a geology student from New Mexico Tech to help target drillholes and sit the rig. Sanchez is interested in any technical assistance AMAX could provide e.g. logging core or lending drilling expertise.

Sierra plans to begin operations in June or July. They have agreed to call me before drilling begins to further discuss an arrangement of some sort.

In my opinion, this is a good opportunity for AMAX to save a substantial sum of money and at the same time gain a great deal of information. Some favorable aspects of an informal deal with Sierra are:

1. The present allocation of \$25,000 for drilling at Hillsboro can probably be reduced to an actual expenditure of about \$10,000.
2. AMAX will not be required to permit any holes or get involved in any institutional dealings.
3. AMAX will have full access to core for both lithologic logging and conductivity samples.
4. Risks of drilling hazards or accidents will be borne entirely by Sierra Resources.
5. AMAX can end its involvement at any time. This matter can be more completely discussed when I return in early April.

  
A. E. Shenker

AES/c