

EXPLORATION, INC.

A SUBSIDIARY OF AMAX INC

4704 HARLAN STREET • DENVER, COLORADO 80212 • (303) 433-6151

July 19, 1979

Mr. Paul Tafoya, Resource Consultant Santa Clara Neighborhood Facility P. O. Box 580 Espanola, New Mexico 87532

Dear Mr. Tafoya:

On behalf of Dean Pilkington, Wendy Merrill and myself, I would like to express our pleasure in meeting with you and other members of the Santa Clara Tribal Council Wednesday afternoon, July 11. I appreciate your consideration in inviting so many of the tribal members to the meeting.

As we mentioned at the meeting, AMAX Exploration, Inc., is beginning to explore the geothermal leases it controls to the north and south of the Baca Location No. 1 Land Grant. Currently AMAX is conducting a self-potential survey to measure the natural electrical potential of the rocks in and adjacent to the leases. About the first of August, AMAX will begin the drilling of shallow gradient wells designed to measure natural changes in temperature with depth and the heat flow within the rocks. Four of these wells can be reached most easily by driving through the Santa Clara Indian Reservation along the road following Santa Clara Creek, across the northeast corner of the Baca Grant, and onto geothermal lease lands administered by the Forest Service. The location of these holes are shown on the attached map.

AMAX would like to obtain permission from the Santa Clara Tribal Council to access these wells through the Reservation and to purchase drilling water if it is available. The wells are scheduled to be drilled to depths ranging between 300 and 500 feet and should take about two to three days to drill. All told, no more than two weeks should be involved in drilling all four holes. The holes are scheduled to be drilled by a truck mounted rotary drill using air to remove the drill cuttings. However, it may be necessary to drill with water and/or mud if drilling problems are encountered. The amount of water needed should not exceed several thousand gallons for all four wells.

During the drilling of the well, procedures are followed to prevent the interconnection of ground water aquifers or of artesian water flow. Temperature of the drilling fluids are monitored so that although it is extremely unlikely, no unexpected hot water zones are penetrated without proper safeguards. As soon as the well is completed, a pipe composed of PVC or iron that is approximately one inch in diameter, capped on the bottom, and filled with water is lowered to the bottom of the well. The pipe is cut off and capped so that it extends approximately one foot above ground surface. The hole is then filled with the drill cuttings, and as soon as possible, the site is returned to its original contour. A diagram of a completed gradient well is attached.

Temperature measurements are made by lowering a thermistor probe down the water filled pipe about a week after the hole is completed and again about a month after completion. After the second probing the pipe is cut off below ground surface level, capped, and the area again raked to its original contour.

AMAX would be pleased to discuss this request in greater detail with you and members of the tribal council at your convenience, and would be willing to escort tribal representatives to the sites in question as well as other operating drill sites so that a more complete understanding can be achieved as to the impact and techniques used in drilling geothermal gradient wells.

Best regards,

Sincerely,

AMAX EXPLORATION, INC.

Koup Casee

Harry J. Olson Managing Geologist Geothermal Exploration

dm

bcc: J. T. Gross L. R. Hall G. E. Merrill H. D. Pilkington J. W. Todd