A CASE HISTORY OF NUMERICAL MODELING OF A FAULT-CONTROLLED GEOTHERMAL SYSTEM AT BEOWAWE, NEVADA

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ABSTRACT

A numerical model has been developed for the Beowawe field, a fault-controlled geothermal system. The model has been calibrated against the initial-state of the reservoir and the following types of historical data: reservoir pressures, non-condensable gas concentrations, enthalpy values calculated from steam fractions at the separators, reservoir temperatures measured by downhole flowing surveys, and tracer test results. The purpose of the modeling was to assess the improved injection strategy at Beowawe that has sharply reduced the rate of temperature decline in the field.

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