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INJECTION DATA ANALYSIS FROM THE 0-473 WELL AT THE CERRO PRIETO GEOTHERMAL FIELD

(ANALYSIS DE DATOS DE INYECCION DEL POZO 0-4730 DEL CAMPO GEOTERMICO DE CERRO PRIETO)

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ABSTRACT

In order to evaluate the injection capacity of the non-productive 0-473 well, a series of four injectivity-falloff transient pressure tests and a long-term injection test were conducted at the Cerro Prieto geothermal field.

In the first tests 60, 90, 120 and 255 tons/hr flow rates were injected and in the long-term test, an average 313 tons/hr were injected during the first 20 injection days with an average well-head pressure of 37.86 psig and later, an average 265 tons/hr flow rate during the last four injection days when vacuum well-head pressures were reached. In this manner, a total volume of 175,751 tons was injected.

After an additional 361 tons/hr flow rate injection-falloff test a formation Kh factor increase in the range of 74.2% with respect to the four initial test results was observed. From such results, the well stimulation was clear and a good acceptance capacity confirmed. These events induced initiation of continuous nontreated cold-water injection using a gravity driven reinjection system.