



Evaluation of groundwater influences and thermal profiles of a well in Pohang, South Korea

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A well of 2,300 m depth in Pohang area, South Korea are used for core and temperature logs and a pumping test. Core consists of tuff, mudstone, and sandstone. Due to pressure gradient along the rock boundaries of the aquifers, groundwater is observed to flow vertically from top to bottom in the well. Geothermal gradient is logged to about 40 [U+2103]/km. Based on the pumping test, transmissivity is calculated to be 4.44 m²/d. Temperature of pumped water was about 32 [U+2103]. Comparing water temperature with the geothermal gradient, it appeared that groundwater residing at the depth of 400m is pumped out.