PANNERGY
www.pannergy.com

OTHER INFORMATION

Budapest, 17 October 2011

Results of the studies connected with well no. GOD-PE-01 in Gödöllő, further progress

In recent months, PannErgy Geotermikus Erőművek Zrt's subsidiary, Gödöllői Geotermia Zrt. has initiated comprehensive and analytic studies in the surroundings of well no. GOD-PE-01 in Gödöllő in order to assess the geothermal potentials of the Triadic formations near the well.

In the first half of the year, at well no. GOD-PE-01 in Gödöllő (hereinafter referred to as the "Well") the drilling head reached the water-bearing Triadic limestone layer at a depth of 2130 meters (Triadic crown). In the well the limestone layer, which can be up to 800–1000 meters thick, was not sufficiently cracked, and therefore further modeling and measurements were necessary for the progress of the investment.

The report has been made with the following contents:

- 3-dimensional (3D) geologic and tectonic assessment of the wider environment;
- geothermal assessment of the drilled environment of the Well;
- hydraulic and heat transport modeling;
- proposals for further researches;
- complex examination of the system.

Running to the east in the direct surroundings of the Triadic surface of the Well (100–500 meters), the so-called Szada Fault divides the studied area into two markedly distinguishable parts. In the area lying to the west of the Well, Triadic formations tend to be shallower, and therefore the temperature of the fluid flowing in them is lower. In the eastern part of the Well, the Triadic formations fall into larger depths, and along the faults, where the Triadic surfaces are hit at a depth of 1900–1950 meters, large geothermal anomalies can be detected (temperature values up to 100°C, because it is blocked from becoming mixed with the fluids featuring lower temperature, but it is heated from the depth).

In this context, for the construction of a closed geothermal system (production well and reinjection) the implementation of the investment should be continued by determining the accurate 3D location and spatial extent of the fault in the area to the west of the Well. The temperature map of the Well shows anomalies at a depth of cc. 1920 meters, i.e. such crown plate cut-through that is heated from the deeper layers, yet whose temperature is lower than the national average calculated from the model (approx. 77–80°C). The temperature anomalies reflect geothermal activities.

On the basis of the expert opinion, the thermal water extracted from the eastern part will be reinjected in a spatial unit near the Well, thereby eliminating the risk of long-term temperature decrease in the underground storage system as a consequence of the fluid having cooled down. The creation of the 3D model leads to the simplification of the investment, because the distance between the production and reinjection wells corresponds to the length of the transmission line to be constructed (cc. 9 km), and therefore it is not necessary to build double (outgoing and return) transmission lines.

As a result of geologic modeling, the potential site of the production well can be designated, and in this respect the company has already started preparative activities for the permitting procedure and drilling.

PannErgy Plc

PannErgy Nyrt.
H-1117 Budapest, Budafoki út 56.
Hungary
South Buda Business Park C.6.1.
Cégjegyzékszám/Registered number: 01-10-041618
Telefon: +36-1 323-2383; Fax: +36-1 323-2373

Adószám/VAT reg.number: 10558377-2-43
EU adóigazgatási szám/EU VAT reg.number: HU10558377
OTP BANK SWIFT: OTPVHUHB
HUF IBAN: HU87 1179 4008 2052 4140 0000 0000
EUR IBAN: HU70 1176 3945 0077 6888 0000 0000