Potential of "Jermakhpyur" Geothermal Site of Syunik Marz,

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Regional investigations conducted in the Soviet times have revealed anomalous geothermal sites on the territory of Armenia. One of them, related to the development area of quaternary volcanism with a lot of warm and hot springs is located at the south-east area of Syunik highland in Armenia. The site is located at watershed of Syunik volcanic highland with the absolute altitude of 2800-3000m and a gentle-undulating relief.

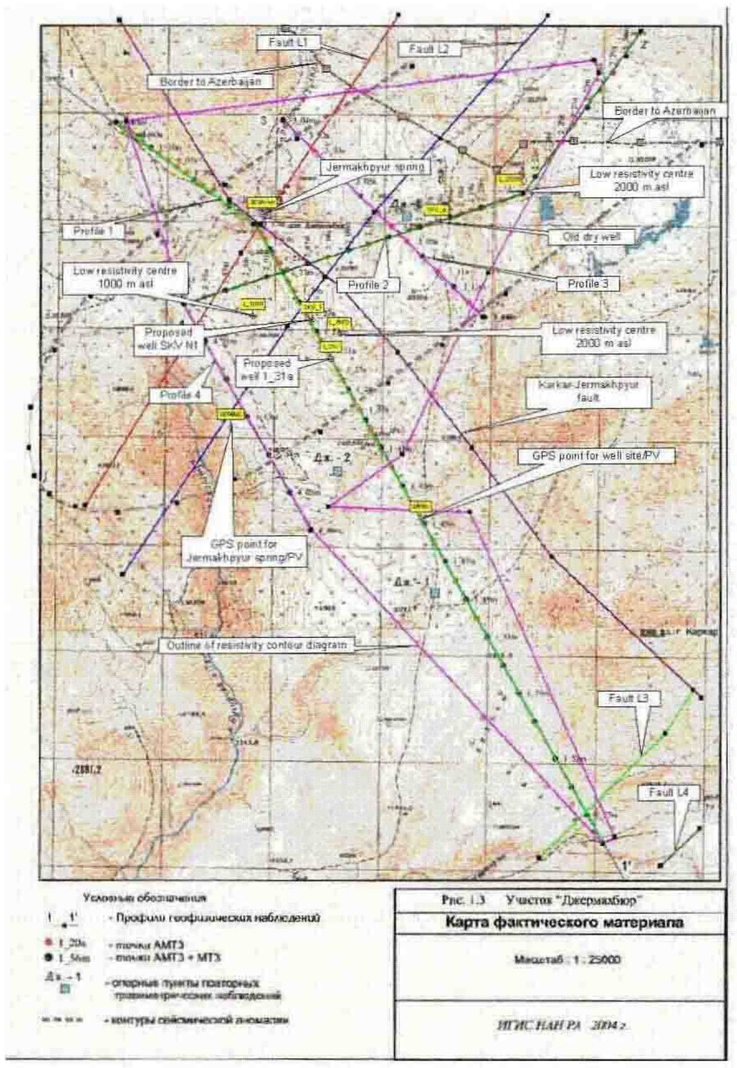
Geological structure and mapping has been done. There is a NNW/SSE graben structure, with two smaller calderas to the north and a larger one to the south. The more southern of the two small calderas has volcanic cones dated as 5000 to 6000 years, aligned on a fault NNE/SSW. This fault has very limited extent beyond the caldera, and this is thought to indicate a shallow magmatic body.

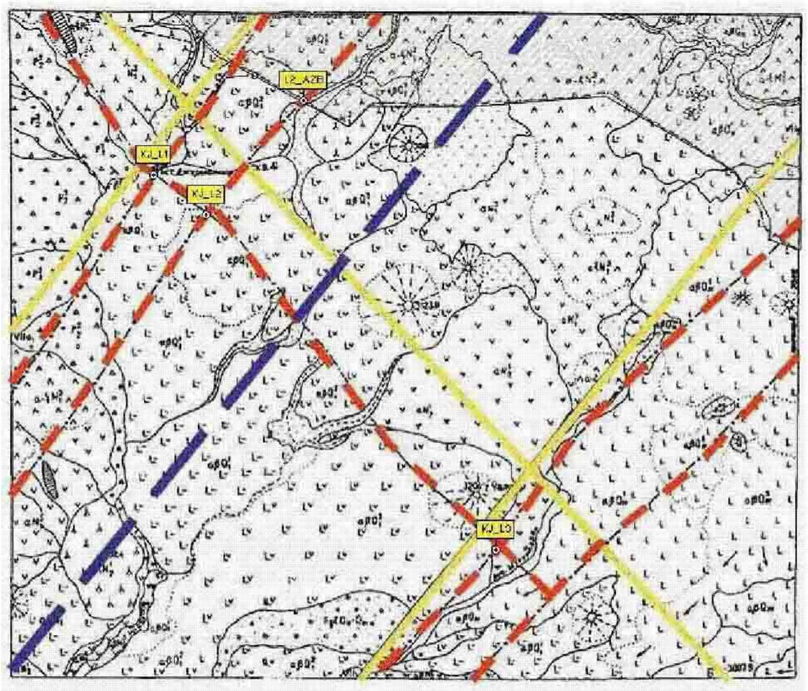
Geophysical (electrical resistivity, magneto-tellurics, self-potential, gravity, aero or ground magnetics, infra-red, seismic reflection).

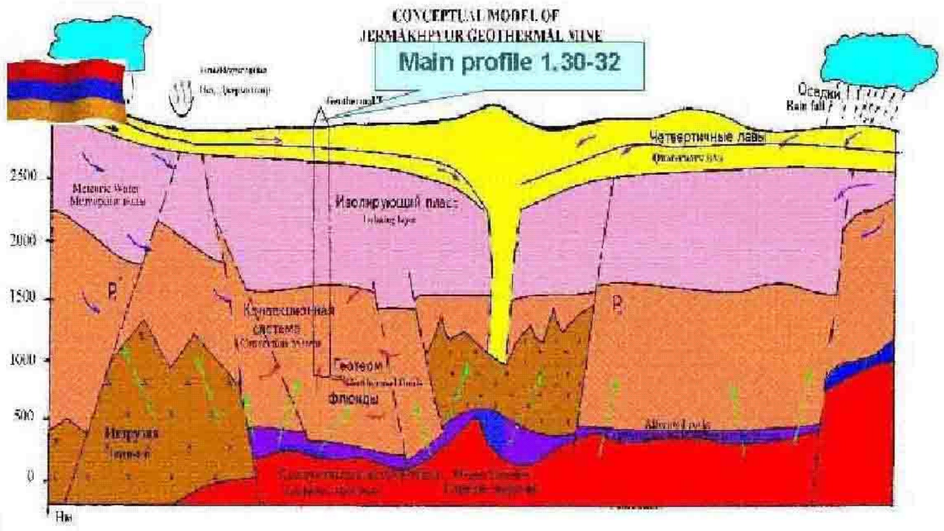
- MT survey shows low resistivity anomaly at about 2.5 km,
- Seismic survey shows zone of attentuation at about 2 km – thought to be semi-solid magma according to seismic wave field.

Figure 1: Thermal spring (arrow) about 2 km straight line from the proposed drilling site

Figure 2: Detail (pond, visible gas bubbles) from thermal spring







Approximate Location of Geothermal Prospect Areas