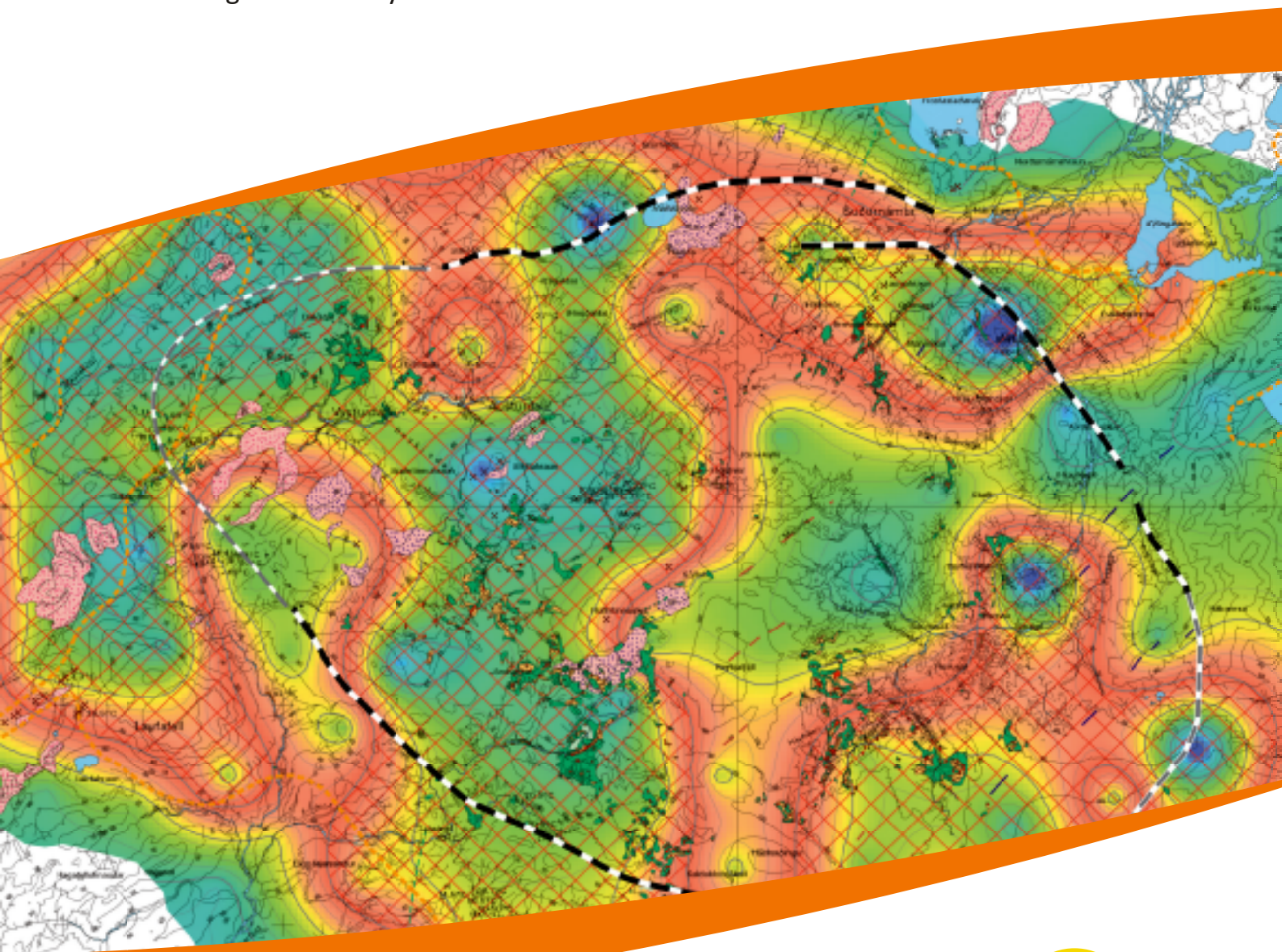


Geothermal

Resource Assessment

Geothermal resource assessment involves studies aimed at assessing the nature and energy production capacity of geothermal systems.



Geothermal resource assessment involves studies and research aimed at assessing the nature and energy production capacity of geothermal systems. It is based on the data available at any given time, or stage in the development of a system, such as surface exploration data, results of drilling exploration and production wells, and production monitoring data.

Iceland GeoSurvey offers a wide range of services for the geothermal resource assessment phase:

▶ **Conceptual model**

Development based on available data and their interpretation. Summarizes available understanding in one unified model of the nature and characteristics of the system. Conceptual models are used to site wells in the field. They also provide the basis for static and dynamic numerical reservoir modeling.

▶ **Volumetric assessment**

Such assessment evaluates the energy production potential of a system (static modeling). The so-called Monte Carlo method is often applied.

▶ **Geothermal system modeling**

The methods used range from simple analytical models and lumped parameter models to complex distributed parameter numerical models. The purpose is to simulate the nature and production response of a geothermal system and to estimate the system's energy production potential.

▶ **Estimate the effects of reinjection**

By numerical modeling and the optimum well location.

▶ **Evaluation of the production**

Characteristics of the reservoir fluid based on its chemical characteristics and prevailing reservoir conditions.

▶ **Optimization of field development**

On basis of the results of the above phases, and other relevant studies.

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