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## **First MT survey completed in Chile**

Hot Rock Limited (ASX: HRL) has successfully completed field data acquisition for an integrated magneto-telluric (MT) / TDEM geophysical field survey at its Longavi Project in Chile. Longavi is one of 6 geothermal prospect areas that HRL holds in Chile, within 12 tenements.

This is the first of a number of MT surveys that HRL will be undertaking at its geothermal prospects in Chile throughout 2011.

The Longavi MT / TDEM survey was undertaken for HRL by a leading geophysics contractor over a prospect area of 200km<sup>2</sup>, using 3 field crews supported by both helicopter and ground transport. Processing of field data has been completed and modelling and interpretation by HRL and its geophysical consultants is in progress and will be completed within 8 weeks.

HRL is proceeding with a similar geophysical survey at its Calerías Project, commencing 16 March.

Peter Barnett, Managing Director of HRL, who is currently in Chile managing these geophysical programs, has commented as follows:

“This survey is a significant milestone for HRL’s operations in Chile. It represents the final stage of data acquisition in a process of data gathering, interpretation and conceptual modelling which will allow for the evaluation of the suitability of the Longavi prospect for exploration drilling”.

“The Longaví geophysics survey has proceeded very smoothly, on time and to budget, thanks to a combination of a comprehensive survey plan, strong support from local communities and land owners, our teaming with a very well equipped and experienced MT/TDEM geophysics contractor and excellent weather throughout the field program”.

Mark Elliott  
**Executive Chairman**

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**Figure 1:** Location of HRL's Longavi and Calerías projects in Chile



**Figures 2:** MT and TDEM geophysical measurements in progress at HRL's Longaví project



**Figures 3:** Field crew acquiring MT and TDEM geophysical measurements at Longavi

### **About the Longavi and Calerías Geothermal Projects**

The Longavi project consists of four contiguous tenements totalling 2,200km<sup>2</sup>, located 300km south of Santiago, on the southern and south-eastern slopes of a large basaltic-andesite stratovolcano. Field studies confirm the presence of large flow, near boiling springs ranging from 70 to 81°C depositing silica sinter. The topographic distribution of these thermal features is diagnostic of a high temperature steep terrain volcanic geothermal system. The presence of thermal features over a large surface area indicates that the geothermal system at Longavi is probably large and the subsurface geometry of the systems should be well delineated by the current MT survey.

The Calerías project, 100km south of Santiago, comprises three tenements covering an area of 1,450km<sup>2</sup>. There are 9 known groups of thermal springs with discharge temperatures averaging 50 to 60°C and ranging up to 75°C and a recently discovered 10<sup>th</sup> spring group. The surface heat and mass flows from these features and their chemistries confirm good geothermal resource development potential, also over a potentially large resource area.

Over the past decade, Magneto Telluric (MT) geophysical soundings have become the standard method for the exploration of high temperature volcanic geothermal systems. This involves the measurement of naturally occurring variations in the magnetic field and concurrent electric field induced in the earth's shallow crust through atmospheric effects from which the resistivity of rocks down to depths of 5km or more can be determined. The resistivity of rocks in geothermal systems varies depending on the rock matrix, the porosity, level of mineralisation of hot geothermal fluids contained in pores and fractures in the host rocks and the extent and type of clay alteration produced by the interaction of the geothermal fluids with the surrounding reservoir rocks. The resistivity values determined by the MT method are used to locate and delineate geothermal systems.

### **About Hot Rock Limited**

Hot Rock Limited is a geothermal energy company that offers investors an opportunity to participate in socially responsible and ethical investment choices through the development of sustainable, emission-free, base load power generation. Strategically, HRL has elected to focus on the commercially proven Hot Sedimentary Aquifer (HSA) and Volcanic Geothermal type projects in its quest to become a leading supplier of geothermal power.

In Australia, the company is focused on developing HSA projects in its large Otway Basin tenements in south west Victoria. In August 2010, HRL was awarded a Geothermal Drilling Program (GDP) grant for \$7million from the Australian government. The grant funds are to go toward the drilling program of HRL's maiden flagship geothermal project at Koroit in the Otway Basin, starting in 2011.

HRL has expanded internationally via South America with the establishment of offices in Santiago and Lima in 2009. Exploration applications covering exciting volcanic prospects in Chile and Peru have been lodged and are starting to be granted. HRL is consolidating its position in South America, where high quality geothermal resources exist and attractive regulatory environments and market conditions are present.