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## **Hot Rock Awarded Three Geothermal Concessions in Chile**

Hot Rock Limited (“HRL”) (ASX code HRL) advises that its wholly owned subsidiary, Hot Rock Chile S.A., has been formally awarded three volcanic geothermal concessions in Chile by the Chile Ministry of Mining. The locations of these areas which cover 1,650 km<sup>2</sup> in total are shown in Figure 1.

- **Galo:** Located within the Santiago Metropolitan region only 90km from the major power load centre in the city proper and close to both major grid transmission and the largest underground copper mine in the world (El Teniente) with high power requirements. The geothermal prospect is situated within a volcanic complex in the foothills of the Andes. It has a number of thermal spring discharges at surface which have geochemical evidence for an underlying active geothermal system with temperatures in excess of 200°C.
- **Santa Sonia:** Located in Region VII, 350km to the south of Santiago and within 40 km of the SIC transmission grid, the largest grid in Chile servicing the Santiago to south central Chile region. The geothermal prospect is associated with the Mt Longavi Volcanic Complex and has a number of impressive boiling, silica sinter forming surface springs distributed over a large area, discharging with individual heat rates of up to 30MW (Figure 2).
- **Santa Antonia:** Located in Region VIII, 150 km south of Santa Sonia. The concession is associated with the Copahue / Callaqui Volcanic Complex which straddles the Argentina / Chile border. Four geothermal wells have been drilled from Argentina into the Copahue system and these prove the existence of a large, permeable, steam dominated geothermal system, with reservoir temperatures up to 250°C. A number of hot surface springs with discharge temperatures up to 75 °C occur within and around the Santa Antonia Prospect. A 5MWe demonstration geothermal power plant is currently being developed on the Argentine side of the border following the successful installation and operation of a 1 MWe pilot plant.

In commenting on these awards, HRL’s Executive Chairman Dr Mark Elliott noted that “with some 300 volcanoes the geothermal power potential of Chile is fantastic. This combined with a high in-country demand for renewable power and the high quality of the business environment in Chile presents an

excellent investment case for HRL to extend its activities into international high temperature volcanic geothermal developments in parallel with its large hot sedimentary aquifer geothermal (HSA) projects in the Otway Basin in Victoria, Australia”.

He further noted that “the awards of these concessions were made in the face of intense competition from other international developers and this reflects well on the very successful establishment of Hot Rock Chile SA in 2009 and the confidence placed by the Chile Ministry of Mines on HRL’s capabilities in geothermal exploration and development”.

HRL is now commencing detailed field exploration surveys at these three prospects. These will include over the first 12 months detailed geological and geochemical work leading to magneto telluric (MT) resistivity surveys to delineate geothermal system boundaries, followed by multi-disciplinary hydro geological modelling, resource assessment and ranking of prospects against resource potential, location and market criteria. Exploration well drilling and flow testing and post drilling detailed resource evaluation will be undertaken during the second year.

“With the convergence of the need for new power generation in Chile, a rapidly growing appreciation by the Chile government for the value of indigenous renewable energy sources, the quantity and quality of geothermal prospects in Chile, a power market price structure that is able to meet directly the cost of geothermal power development and a high quality and stable business environment, HRL is confident of achieving considerable success in Chile in parallel with its substantial forward geothermal development program in Australia. Both will add significantly to shareholder value” said Dr Elliott.

Technical details on the three awarded prospects, and a number of further prospects that HRL has applied for in Chile with awards currently pending, are available on HRL’s website.



Mark Elliott  
**Executive Chairman**

For further information please contact:

Dr Mark Elliott,  
+61 7 3212 6200 or 0409 998 840

[mark.elliott@hotrockltd.com](mailto:mark.elliott@hotrockltd.com)

or

Kevin Kartun, FCR (Financial & Corporate Relations)

(02) 8264 1003

or visit the website [www.hotrockltd.com](http://www.hotrockltd.com)

**Figure 1:** Locations of the three geothermal concessions in Chile awarded to HRL



**Figure 2** High flow rate, boiling, silica sinter forming surface spring discharge of geothermal water at one location in the Santa Sonia concession. For scale, the height of the hot geothermal water fall is 20m and the rate of hot water flow from the spring is 100 kg/sec – about the same size as the flow rate from a large commercial geothermal power well.

