



# June 2009 QUARTERLY REPORT

## About Hot Rock

Hot Rock Limited is an Australian energy company formed to develop geothermal energy in Australia and overseas.

The company is one of the largest holders of geothermal acreage in Australia with its position in the Otway Basin Geothermal Province and Queensland. HRL is planning to drill its first flagship geothermal project at Koroit in the Otway Basin, Victoria in 2010.

## Management

Mark Elliott – MD

Peter Barnett – COO

## Hot Rock Limited

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## Highlights

### Otway Basin, Victoria

- HRL successfully raised \$2.5m in July to assist with preliminary payments for the Koroit drilling program and working capital. The funds raised will be used to pay deposits to secure a drill rig, well heads and casing for two wells to be drilled at our flagship geothermal project at Koroit (permit GEP8) in early 2010.
- Planning work was completed for the proof of project concept program on HRL's Koroit Project in the Otway Basin, consisting of drilling and testing two standard production appraisal wells testing the potential of the Koroit Hot Sedimentary Aquifer (HSA) reservoir by verifying temperatures and well flow rates.
- A letter of intent was executed with MB Century to secure a drill rig for the Koroit project along with a Drilling Club Heads of Agreement with another Victorian geothermal developer to share rig mobilisation costs.
- A geothermal resource estimation is near completion for the Koroit project in GEP8 and will be reported shortly.
- Interpretation of the Magneto Telluric (MT) survey data and detailed 3D geological modelling in preparation for drilling at Koroit was continued over the previous quarter and will be completed in the next quarter.

### Funding

- At a General Meeting held on the 13 July 2009, shareholders approved a placement to raise \$2.5m at 8 cents per share from private investors. The placement had strong support being significantly over subscribed.
- HRL is applying for \$7m in Round 2 of the Australian Government Geothermal Drilling Program (GDP) grant. The GDP grant of \$7m will enable HRL to complete a proof of concept drilling and testing program at Koroit.

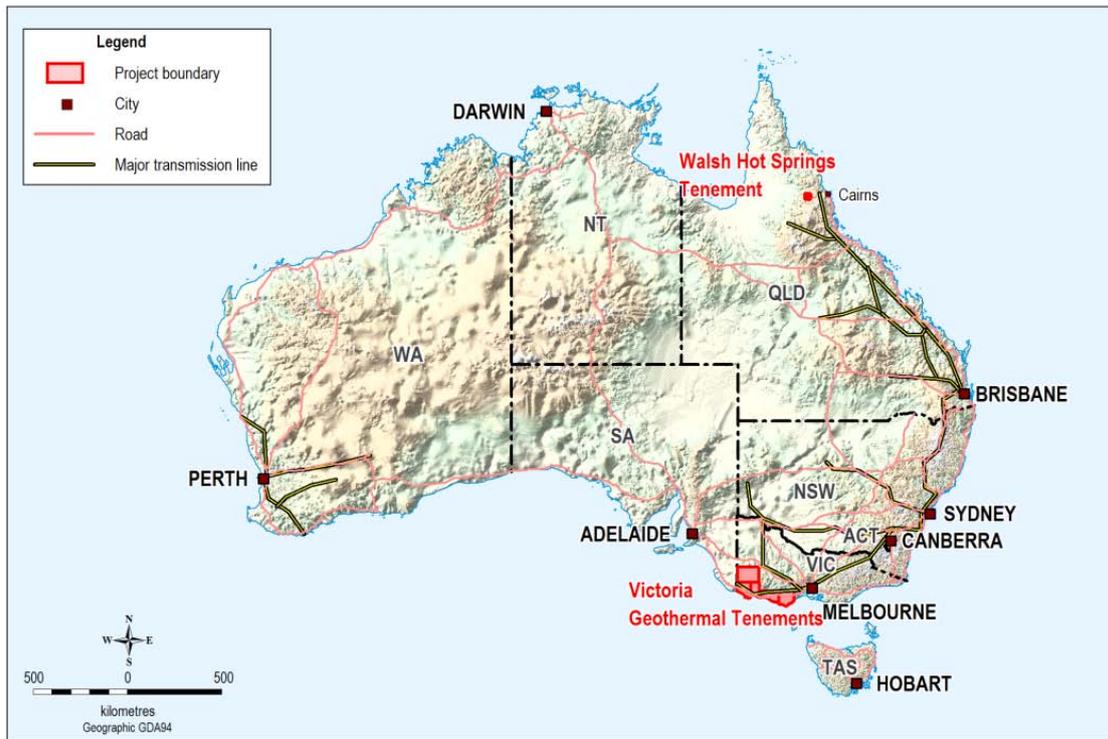
### Corporate

- As at 30 June 2009, HRL's cash reserves were approximately \$2.6 million.

## GEOTHERMAL EXPLORATION ACTIVITIES

During the quarter, HRL focussed its activities on finalising its geological and resource estimation studies on its flagship Koroit Project. Furthermore, HRL reviewed extensive petroleum seismic and well databases across all of our permits identifying additional troughs for follow up resource estimation studies to select new drilling targets in the Victorian Otway Basin.

Five permits are granted over most of the Otway Basin in Victoria and one permit is awaiting grant covering hot springs in the Walsh Creek area, west of Cairns in Queensland (Figure 1).



**Figure 1:** *Permits held by Hot Rock*

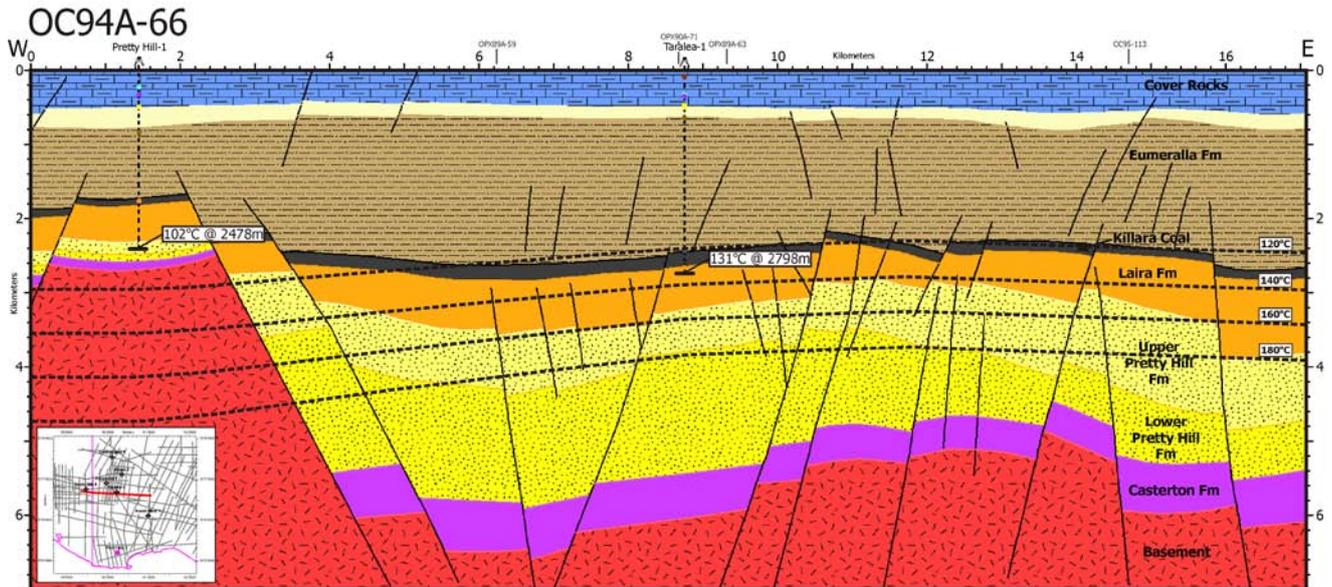
### OTWAY BASIN, VICTORIA (GEP- 6, 7, 8, 9 & 23 - 100% HRL)

#### 1. Ongoing Delineation of the Geothermal Reservoir at Koroit

Consultants 3D GEO completed a detailed analysis of the Crayfish Subgroup Hot Sedimentary Aquifer (HSA) reservoir and overlying thermal blanket at Koroit. A detailed 3D geological model has been developed which characterises the Koroit geothermal system with regards to key geothermal characteristics including,

- a. geological structure at the regional and project level
- b. thickness and distribution of reservoir rocks including delineation of a constrained reservoir volume and
- c. distribution of measured and estimated temperatures (from earlier drilled petroleum wells) within the reservoir volume.

A cross-section sliced through the geological and thermal model is shown in Figure 2.



**Figure 2:** West to east cross-section through the 3D geological / thermal model of Koroit geothermal system

Key conclusions from the 3DGeo modelling work include:

1. The Eumeralla Formation and Killara Coal unit form a thermal blanket above the Crayfish Subgroup geothermal reservoir.
2. From the results of seismic sequence stratigraphy and correlation with geological logs from existing wells, thick continuous sand packages are evident in the Crayfish Subgroup with the most extensive hosted in the Upper and Lower Pretty Hill formations. The sands occur as extensive, multiple stacked layers (up to 3 layers) up to 500m thick each, over a depth range from 2.7 to 4.5 km, and over a temperature range from at least 140°C as measured in existing wells, to an estimated temperature of 170°C at 3500m (Figure 2). These sands represent a volumetrically large geothermal reservoir with temperatures well suited for commercially viable geothermal power generation.
3. The reservoir has undergone extensive faulting and fracturing on a number of different structural orientations. Geomechanical analysis of stress regimes, bore hole break out and dip meter data from existing petroleum wells confirm that a number of these fault orientations are open and are thus likely permeable to geothermal fluids.
4. It is clear from this evidence that the Koroit geothermal prospect has good potential for permeability from both primary (associated with porosity) and secondary (associated with fault and fracture) sources. This provides optimism for a successful outcome for HRL's production appraisal well drilling program to be commenced early 2010.



### 3. Preparation for Drilling

HRL has designed two inclined standard size production wells to test the Koroit geothermal reservoir. These will be completed with an 8.5inch diameter open production hole to 3500m depth, completed with a 7inch slotted production liner. This well design still enables HRL to collect the temperature and flow rate data from the fractured hot water filled sandstone reservoir at Koroit required for a proof of concept program but without the 30% to 40% extra cost associated with large diameter wells and a larger rig as previously programmed.

HRL has entered into a Drilling Club Agreement with another Australian geothermal developer to secure a 750HP Drilling Rig from MB Century Drilling to undertake drilling of its Koroit Project. The purpose of the Drilling Club Agreement is to share rig mobilization costs. The Agreement includes a schedule for rig use commencing with HRL drilling first in February 2010, followed by the other developer. If HRL's first well is successful HRL have priority access and the second Koroit well would be drilled immediately.

HRL has executed a Letter of Intent with Century Energy Services Pty Limited (CES) headquartered in Brisbane, to use one of their rigs capable of completing the two wells. CES is owned by MB Century who is one of the largest and most experienced drilling contractors with more than 50 years experience serving the oil, gas and geothermal energy sectors. They have drilled over 800 geothermal wells around the world. MB Century also has local knowledge by drilling a number of oil and gas wells in the Otway Basin near Koroit.

The engineering designs for the wells are complete, all drilling materials have been specified and quantities determined and costed. Long lead procurement items have been identified and HRL is preparing to place orders with suppliers.

### 4. Project Plan

The two Proof of Concept production appraisal wells should result in the upgrading of the new resources to reserves, within Hot Rock Limited's GEP 8 permit. This will be followed by a detailed engineering and commercial Feasibility Study.

It is expected the project will lead to the immediate commitment and development of a 1MWe Pilot geothermal power plant at Koroit by the end of 2010, likely the first in Victoria, followed by a 10MWe Demonstration geothermal power plant by the end of 2012.

This exciting development enables HRL to move quickly through the key "proof of concept stage" of the Koroit Project and to commence a pilot plant with subsequent staged power expansions to develop the base load renewable geothermal reserves in south-west Victoria.

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## FUNDING

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HRL successfully raised \$2.5m at 8cents per share via a private placement through Bizzell Capital Partners. This funding assists with the rig, well-head and casing deposits required to be paid for the Koroit drilling program.

HRL is applying for a \$7million Geothermal Drilling Program grant "Round 2" from the Australian Government's Department of Resources, Energy and Tourism (DRET). Round 2 GDP grant applications close on the 4<sup>th</sup> August 2009 and successful candidates should be informed in November if they are successful.

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**CORPORATE**


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**Cash Position**

At the end of the June 2009 Quarter, the Company had approximately \$2.6 million cash at bank with a further \$1.8 million (before costs) received in July following the approval of the placement. The net cash operating and exploration expenditure for the quarter was \$697,000.

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**CORPORATE DIRECTORY**


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**Board of Directors**

Norm Zillman	Non-Exec Chairman
Mark Elliott	Managing Director
Peter Barnett	COO and Executive Technical Director
Mike Sandy	Non-Executive Director

**Company Secretary & CFO**

Paul Marshall

**Issued Share Capital**

Hot Rock has 92.45 million ordinary shares currently on issue and 10 million options.

**Quarterly Share Price Activity**

	High	Low	Last
June 2009	\$0.115	\$0.089	\$0.10

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Please direct shareholding enquiries to the share registry.