

# Quarterly Activities Report

for the three months ending 30 June 2008

31 July 2008

## Highlights

- ▶ Design of two deep evaluation wells at Olympic Dam
- ▶ Evaluation and modelling in Cooper Basin
- ▶ Commencement of activities at Spencer Gulf
- ▶ Western Australian Exploration Licences to be announced in August
- ▶ New joint geothermal company established in Hungary
- ▶ Recruitment underway

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## Activities

### Olympic Dam

**Geothermal Energy Project**  
South Australia, 100% interest

#### **Design of the two deep evaluation wells commenced in preparation for drilling in 2009.**

With the successful completion last quarter of the hydraulic fracture testing (“mini-frac”) in Blanche No 1 well, design of the two deep evaluation wells and associated water circulation testing commenced at the Olympic Dam Geothermal Energy Project. The mini-frac testing demonstrated that fractures can be successfully opened in the hot granite rocks.

This drilling of the two deep evaluation wells and water circulation testing is the final major step towards commercialisation of geothermal energy at Olympic Dam and the consequential provision of the heat energy to power a large base load power plant with a capacity in excess of 400 MW of electricity. The two evaluation wells, will be drilled a few kilometres to the west of Blanche No 1 well, and approximately 15 kms from BHP Billiton’s mining operation. Success with this will set the Company on a major growth phase and the delivery of clean, renewable energy on a massive scale. Subject to the procurement of a suitable drill rig, and the finalisation of a farm-in joint venturer, drilling of the wells should commence in early 2009 to set up a sub-surface heat exchanger and prove a commercial circulation system to recover heat from the hot granites for power generation. Evaluation of the most suitable drill rig capable of drilling the deep evaluation wells continued in association with some other companies in Australia for the purpose of sharing the cost of well inventory and mobilisation of the rig to South Australia.

***Refer to Figure 1 : Olympic Dam Geothermal Project- Initial Well Design ( page 6)***

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## Patchawarra

### **Geothermal Energy Project**

South Australia, 100% interest

### **Evaluation and modelling of hydrothermal system in the Cooper Basin**

Data evaluation and the modelling of sediment thickness and water flow potential was undertaken during the quarter based on data from previously drilled hydrocarbon wells on the Company's three geothermal exploration licences covering 1,483 sq kms of land over the Patchawarra Trough in the Cooper Basin, South Australia. This evaluation is concentrating on rocks with temperatures greater than 140 degrees C and with potential high water flow capacity (known as permeability) at depths between 3,000 to 4,000 metres, with the immediate objective of defining specific geothermal energy target areas for evaluation drilling. A combination of well log analysis, detailed seismic assessment and temperature modelling are being used to locate the prospective geothermal targets.

## Upper Spencer Gulf

### **Geothermal Energy Project**

South Australia, 100% interest

### **Evaluating potential for desalination and power generation at Upper Spencer Gulf**

The Spencer Gulf project, covering 1,938 sq kms along the Upper Spencer Gulf coast, provides the potential for geothermal energy resources which can produce the energy for seawater desalination projects. A geothermal project has the potential to provide a green, renewable, energy source for a distillation desalination plant. A 275kW power-line is situated along the eastern edge of the geothermal licences and two 275kW lines are situated at the northern edge.

Parts of the tenements are underlain by the prospective Hiltaba Suite granitic rocks. These granites, the same radiogenic hot granite suite which the Company is exploiting at Olympic Dam, provide the heat source for the geothermal energy. Up to 14ppm uranium, 18ppm thorium and 6% potassium values had been recorded from drilling in the area.

A record of all drilling results in the tenements has been compiled and during the next six months on-site field work will be conducted to survey any available open holes for temperature measurement. In combination with this work, temperature readings will be measured in holes to be drilled on the western side of Spencer Gulf. Available total magnetic intensity, gravity and radiometric datasets have been compiled and will be interpreted to assist target selection.

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## Perth Basin

Western Australia  
*varying % interest*

### **Exploration Licences to be announced in August**

The Company is awaiting the outcome of applications for geothermal exploration licences lodged with the Western Australian Government in the previous quarter. Planning of exploration in these areas is underway on the basis that the Company expects to be granted some permit areas. It is understood the Government may announce successful bids in August.

## Hungary

**Geothermal Energy Project**  
Hungary, 33.3% interest

### **The relationship with our Hungarian partners was further consolidated through the establishment of a new joint geothermal company.**

On the 30 July, Green Rock Energy signed the Shareholders Agreement and Articles of Association to establish a new geothermal energy company with MOL Hungarian Oil and Gas Plc. (Hungary's principal oil and gas company) and Enex hf. (a leading Icelandic geothermal consulting and development company). This new joint company, Central European Geothermal Energy Private Company Limited (CEGE), consolidates the strong relationship between the three companies for the exploration and development of geothermal energy resources in Hungary. The companies each have an equal one third share in CEGE.

CEGE's mission is to become the market leader in geothermal energy production in Hungary with the goal of providing a significant contribution to Hungary's plans for renewable energy sources. Hungary is one of the most prospective parts of Europe for geothermal energy due to its high heat flow and attractive markets and pricing for power generated from geothermal energy. Two project areas, with substantial hot geothermal water encountered from existing wells drilled by MOL, have been selected for the initial focus of the new company.

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## Corporate

### Recruitment

With plans for the major growth phase to commence at Olympic Dam, the expected imminent grant of new tenements in Western Australia and the formation of a new joint company in Hungary, the Company began a significant recruitment exercise. Staff to be appointed will include a general manager to oversee and manage the design and implementation of the Olympic Dam Project and geologists, geophysicists and hydro-geologists for exploration in Australia and Hungary.

### Government Policy

Over the last three months the Federal Government has released several papers seeking public comment on the design of the forthcoming Renewable Energy Target (20% renewable energy by 2020) and the Emissions Trading Scheme. The Australian Geothermal Energy Association made submissions to the appropriate Government Departments for these and the allocation process for the recently announced \$50 million Geothermal Drilling Fund. Green Rock Energy was an active participant in the development of each of these submissions.

## About Green Rock

Green Rock Energy Limited is an Australian company focused on developing commercially sound renewable geothermal energy projects. The Company has projects in Australia and Europe and is a member of the Australian Geothermal Energy Association and sponsor member of the International Energy Agency's Geothermal Implementing Agreement.

### Board of Directors:

Adrian Larking	Managing Director
Alan Knights	Executive Director
Jörg Baumgärtner	Non-Executive Director
Scott Spencer	Non-Executive Director

**Australian Stock Exchange Listing:** ASX Code GRK

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**Figure 1 : Olympic Dam Geothermal Project - Initial Well Design**

