



ASX/Media ANNOUNCEMENT

29 April 2009

Geothermal discovery in the Penola Trough of GEP23 permit, Otway Basin, Victoria

Key Points

- **Exciting new geothermal discovery data obtained from review of petroleum well Glenaire ST1 drilled in the Penola Trough within HRL's GEP23 Otway Basin permit.**
 - **A Horner corrected bottom hole temperature of 158°C at 3,702m depth was obtained for this well. This is the highest temperature yet recorded in HRL's extensive Otway Basin permits.**
 - **This discovery is indicative of the commercial potential of both the GEP23 permit area and the more extensive Otway Basin acreage with the temperature being suitable for the operation of a geothermal power plant.**
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Hot Rock Limited ("HRL") (ASX code HRL) today announced a geothermal discovery in its newly granted GEP23 Permit in the Otway Basin, Victoria after reviewing recently released petroleum well results.

Glenaire ST1 Well was drilled in the Penola Trough by Beach Petroleum in 2006. It penetrated the top 189m of a thick sequence of the Pretty Hill Formation sandstone reservoir unit and a Horner corrected temperature of 158°C was obtained at the bottom of the well at 3,702m. This is the highest Horner temperature recorded in HRL's permits in the Otway Basin. The Glenaire ST 1 Well indicates that the Penola Trough is capable of containing hot water at temperatures greater than 140°C which is suitable for the operation of a geothermal binary cycle power plant.

The Glenaire ST1 Well is the deepest well drilled into the central portion of the Penola Trough and tested the top of the Pretty Hill Formation from 3,513m to bottom of hole at 3,702m. A range of temperature measurements were taken over different time periods and depths to estimate the natural state temperatures in the surrounding rock. These temperatures are used to estimate a bottom hole Horner corrected temperature which is commonly used to estimate stable geothermal reservoir temperature in recently completed wells.

In permits GEP6 and 23, eight petroleum wells have been previously drilled in the Penola Trough and surrounding areas and seven of them intersected the Pretty Hill Formation sandstone reservoir.

Figure 1 shows the location and summary of the wells in relation to the Penola Trough geothermal target. Extensive 2D seismic surveys have been carried out in the area to investigate the subsurface geology. Gas production is sourced from the Pretty Hill Formation at the Katnook and Ladbroke gas fields, located only 25km to the north west of Glenaire ST1 Well (Figure 1).

This indicates that the Pretty Hill Formation reservoir unit has suitable porosity and permeability to support commercial gas flow rates and therefore potential water flow rates required for geothermal plants at least from similar depths of around 3,000m. Additional support for the geothermal potential of the Pretty Hill Formation in the Penola trough comes from a recent press release from Panax, a geothermal development company with a similarly strong interest as HRL in sedimentary geothermal, holding permit GEL 223 over the Katnook and Ladbroke gas fields. The release claims a measured geothermal resource of 11,000 PJ in GEL 223," large enough to operate a 1,000 Megawatt power station for 30 years"¹

Figure 2 depicts a geological interpretation of a north-south cross-section taken from seismic data and the Glenaire ST1 Well. It shows that the well has only tested the top 189m of a 1,300m thick sequence of Pretty Hill Formation reservoir unit. An extensive reservoir rock sequence remains untested below the limit of the Glenaire ST1 Well.

Figure 3 shows a north-east trending geological cross-section through the Penola Trough displaying the Pretty Hill Formation reservoir deepening and thickening towards the south-west from McEachern 1 Well. Although the other wells in the area have attractive temperature gradients they did not reach suitable temperatures for geothermal power production within the relatively shallow intersections made with the Pretty Hill reservoir unit. However, they do point toward deeper parts of this unit within the Penola Trough as being attractive targets for testing a reservoir with temperatures suitable for geothermal power generation. Of particular interest is the reservoir in the 3,000m to 3,500m depth range where commercial grade geothermal temperatures are obtainable at moderate depths which represents lower project drilling costs for any plant development. An extensive thermal insulating blanket consisting of mainly mudstone, siltstone and coal beds lies directly over the Pretty Hill Formation and this helps retain the heat within in the geothermal reservoir.

¹ Panax Media Release, 23Feb 2009

ONGOING WORK 2009

The discovery well and associated assessment of the geological information in GEP 23 provides the Directors of HRL with confidence that significant geothermal development potential exists in this permit area.

HRL is currently carrying out extensive geological modelling and interpretation of data, including that from the largest MT (magneto-telluric) geothermal survey in Australia, for its first flagship geothermal project at Koroit in the Otway Basin, within permit GEP8.

HRL will build on this current experience and expertise to carry out further detailed geological modelling and a comprehensive MT survey around the most prospective area in GEP 23 in 2009. This information will be used to optimise the selection of an appropriate appraisal well site for the purpose of testing the temperature and permeability characteristics of the geothermal reservoir for power production.

Dr Mark Elliott, Managing Director of Hot Rock Limited commented "The Horner corrected bottom hole temperature of 158⁰C recorded at Glenaire ST1 Well is another important piece of evidence that our target Pretty Hill Formation reservoir rock has exciting potential for supplying hot water to clean energy, base load geothermal plants throughout the Otway Basin in Victoria".

About Hot Rock

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

The company is the largest holder 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 2009-10.



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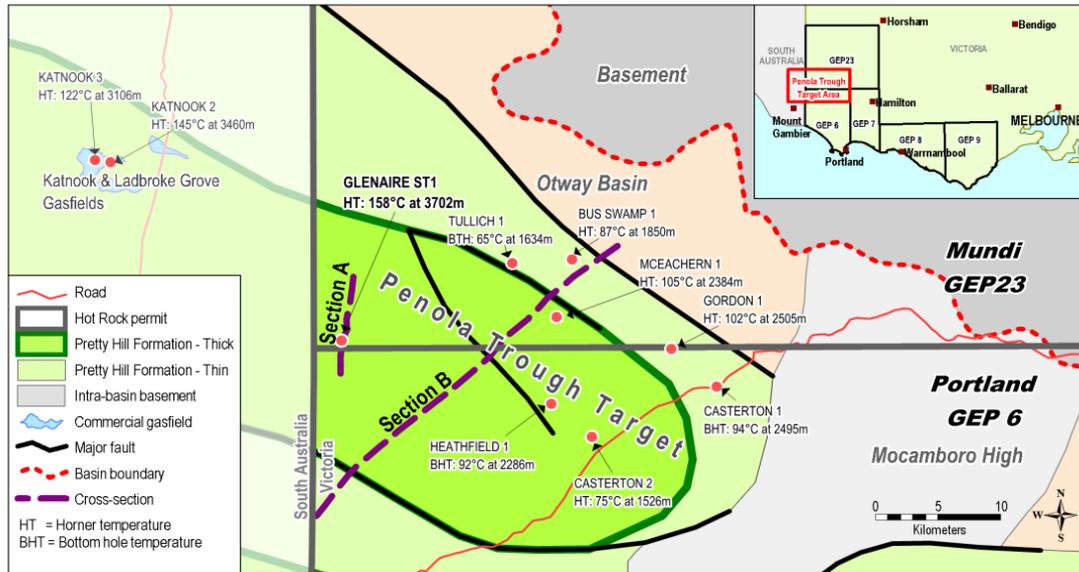


Figure 1: Location of the Penola Trough in GEP's 6 and 23, showing the location of wells, in particular the Glenaire ST1 Discovery Well

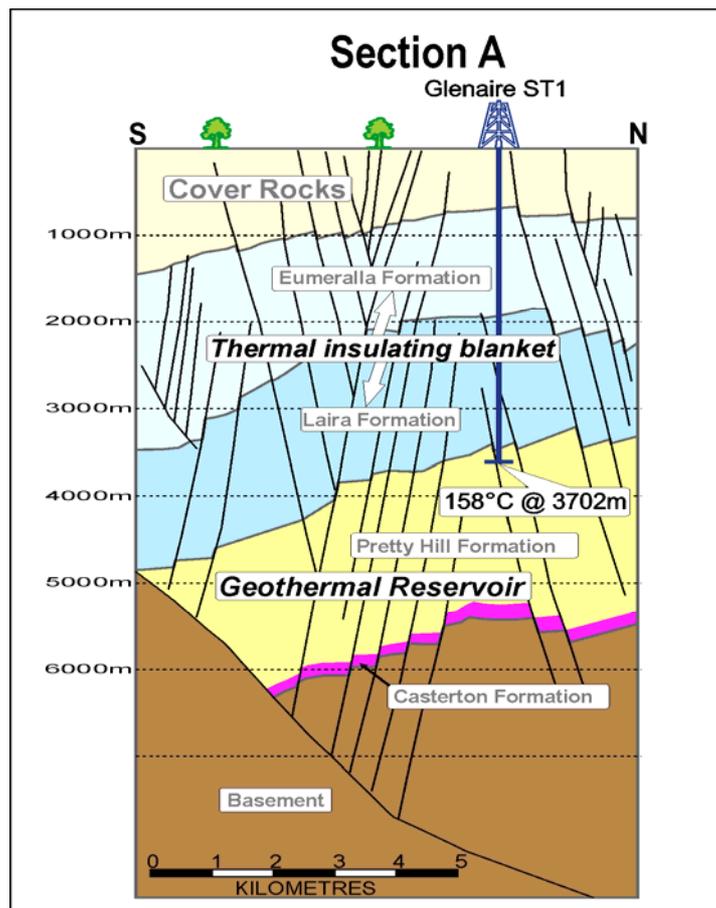


Figure 2: Geological cross-section A through Glenaire ST1 well in the Penola Trough showing the extensive development of the geothermal reservoir rock and the overlying thermal insulating blanket

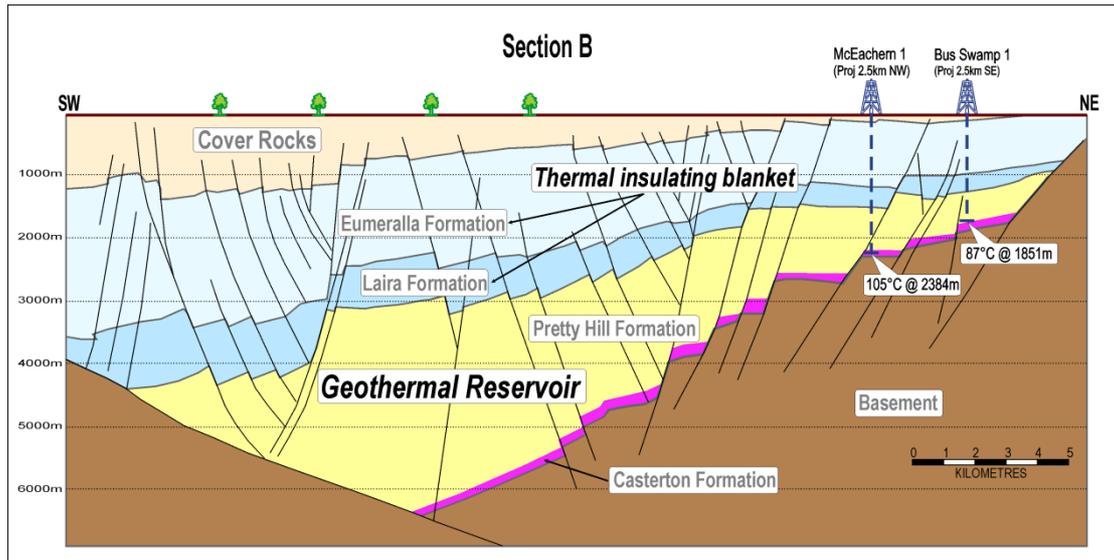


Figure 3: Geological cross-section B through the central section of Penola Trough showing the extensive development of the geothermal sandstone reservoir rock and the overlying thermal insulating blanket