

ASX ANNOUNCEMENT AND MEDIA RELEASE, 24 August 2009

PLANNED DRILLING: STAGE ONE OF THE GEELONG GEOTHERMAL POWER PROJECT

- **Drilling target identified for Victorian flagship geothermal project**
- **Potential geothermal reservoir up to 1,000 m thick**
- **2,000 HP Weatherford Drilling Rig 828 secured**
- **Drilling time slots for stage 1 well couplet confirmed for mid 2010**
- **Potential to initiate development of Victoria's first geothermal power station**

Greenearth Energy Limited (Greenearth Energy) (ASX:GER) is pleased to announce the results of work completed for the company by consultants Sinclair Knight Merz (SKM) in relation to drilling proof of concept wells for its flagship Geelong Geothermal Power Project (GGPP).

Greenearth Energy has previously made releases to the Australian Securities Exchange (ASX) in relation to its inferred geothermal resource in the Geelong area in the company's Geothermal Exploration Permit (GEP) 10 (see ASX release of 04 December 2008) and at its GGPP location, northwest of Anglesea, where an inferred resource of approximately 17,000 petajoules (PJ) has been estimated (see ASX release of 17 August 2009).

The company has identified the location of its initial two wells (a couplet consisting one production and one injection well) of the GGPP and has secured the 2,000 HP Drilling Rig 828 (Figure 1) from Weatherford Drilling International Australia Pty Ltd (see ASX release of 04 August 2009). Greenearth Energy has paid a non-refundable deposit to secure the rig slots and expects to spud its Geelong Geothermal Well No.1 by mid 2010 immediately followed by Geelong Geothermal Well No.2 upon successful completion of the first well.



Figure 1: Weatherford Drilling International Australia Pty Ltd 2,000 HP Drilling Rig 828

The proposed project location, approximately 11 km from Anglesea brown coal fired Power Station, has been selected on the basis that it targets the hottest and thickest section of a hot sedimentary aquifer (HSA) reservoir formation (>1,000 m thick) (Figure 2).



Figure 2: GGPP, 11 km north of Anglesea: proposed location of wells (dashed red line): thickness of the target zone is shown at 400m (yellow), 800m (orange), and 1,000m (red) contours

The company's technical advisors and geothermal drilling engineers have produced a conceptual deviated well design for the proof of concept drilling stage of the GGPP (Figure 3).

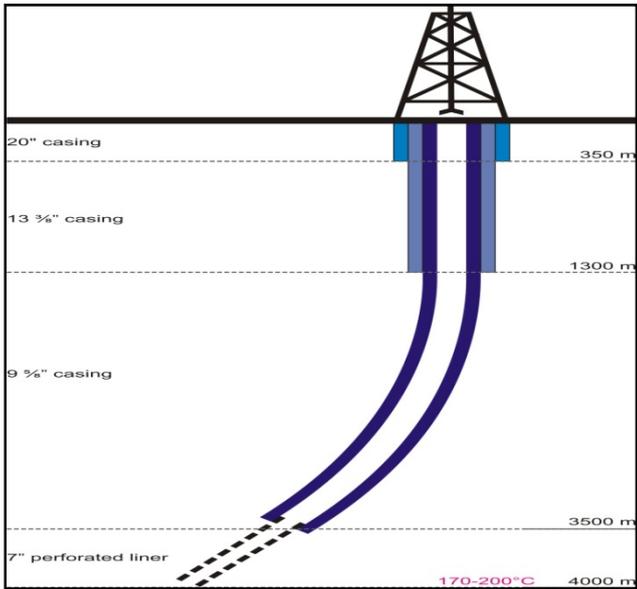


Figure 3: Conceptual deviated well design for Geelong Geothermal Well No.1

Directional drilling has been proposed to minimise the number of drilling pads and remove the need for extensive above ground cross country pipework between the production and injection wells and to maximise the length of geothermal reservoir intersected for a given drilling depth. A modest drilling deviation of 15° from vertical at the 1,000 m level can achieve suitable separation within the reservoir of production and injection wells of approximately 1,500 m at a vertical depth of 4,000 m (Figure 4). The separation of production and injection wells in the reservoir is an important requirement to avoid 'short circuiting' of geothermal fluid flow from the injection well to the production well whilst enabling the injection well to maintain reservoir pressures and hence reduce reservoir pressure drawdown. Directional drilling techniques are common place in both the Petroleum and Geothermal Industries.

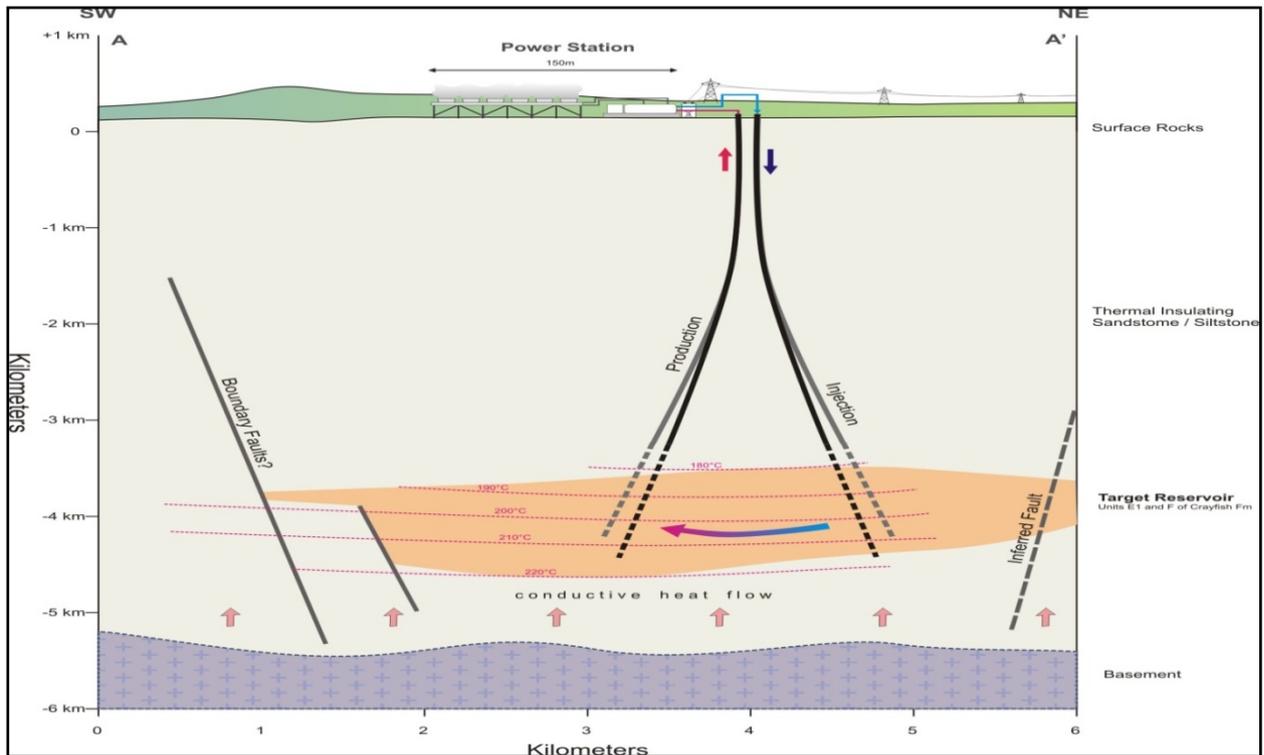


Figure 4: Geelong Geothermal Power Project deviated well concept intercepting target hot sedimentary aquifer reservoir with circa 1,500m well separation at target depth.

The drilling of the proof of concept couplet is to demonstrate the capability of producing geothermal fluid from a single production well at a temperature and flow rate suitable for geothermal power production, and reinjection of that fluid via an injection well into the same hot sedimentary geothermal reservoir (Figure 4). Having two wells will enable long term flow testing to fully characterise the resource and enable the development of a robust geothermal reservoir model to predict long term operational characteristics under power production operation.

Upon the successful characterisation of the resource at a satisfactory level suitable for power generation and taking into account appropriate well spacing requirements and degree of well deviation, it would be practical to drill two or three production wells, and the same number of injection wells, from one well pad tapping approximately 3 to 4km² of reservoir area (Figure 5). If the reservoir has sufficient permeability to provide gross power generation (before production and injection pump parasitic losses) of 9 MW_e or more per production well (as analysis of the significant modelling undertaken suggests), then this modular-scale development approach lends itself to replication across the geothermal resource as a method of cost effectively developing the full HSA geothermal resource in the target reservoir potentially to 140MW_e Nett. This approach also provides the optimal risk mitigation strategy towards the commercialisation of the geothermal resource.

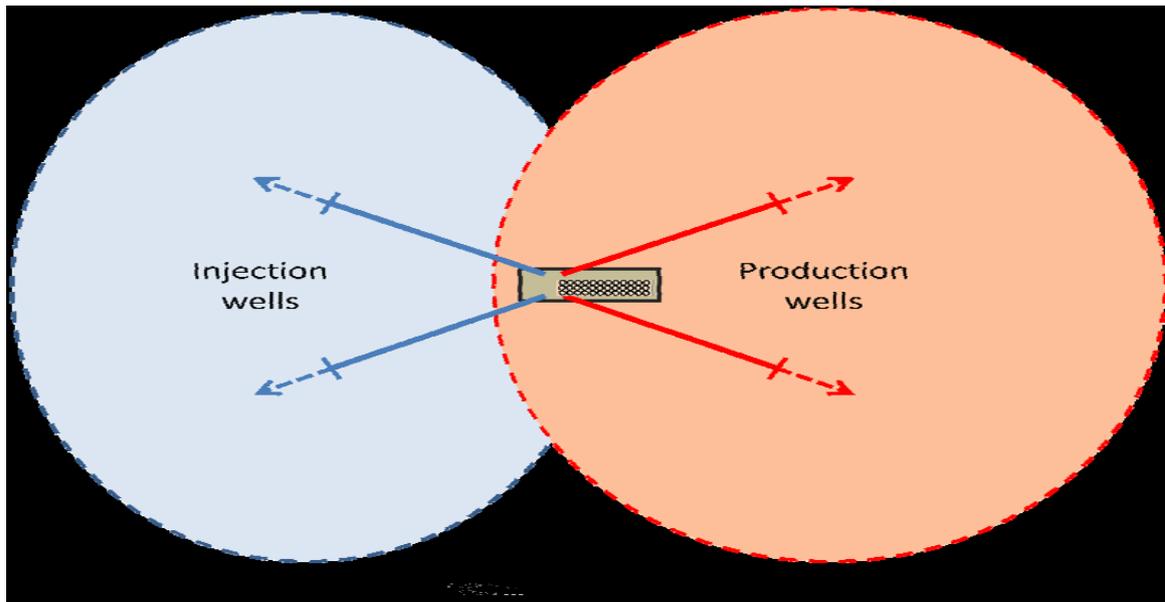


Figure 5: Modular plant concept, with two production and two injection wells drilled from one location that serves to also host future modular-scale geothermal power plants.

Greenearth Energy's Managing Director, Mark Miller said today: "We have established a significant inferred geothermal resource, proximate to existing energy infrastructure, major industry and future urban growth areas. This hot sedimentary aquifer geothermal resource has the potential to deliver significant base load, emissions free energy into the future. Our plan is to use proven, established directional drilling techniques in an innovative way to maximise our resource potential while reducing our above ground footprint and costs.

Our commitment to the Geelong Geothermal Power Project is underpinned by our company securing the Weatherford 2,000 HP Drilling Rig 828 for the spudding of our first deep geothermal well in mid 2010. Accordingly we have applied to the Federal Government's Geothermal Drilling Program for \$7m to assist funding of the proof of concept drilling phase of our flagship Victorian geothermal power project and are actively seeking investment partners to assist in bringing the GGPP to successful fruition".

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