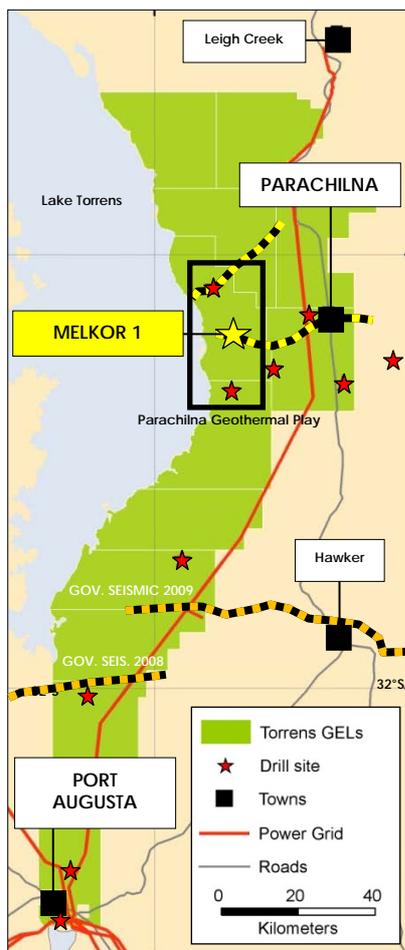


Parachilna Validation Drilling Completed Outstanding Heat Flow Update from 1,000m

HIGHLIGHTS

- Drill hole Melkor 1 completed to 1,007m, Parachilna Geothermal Play SA
- Outstanding heat flow independently verified as 115mW/m²
- Modelled reservoir temperatures validated around 240°C at 4,500m
- Deep "Confirmation Well" Elendil 1 refined to reservoir depth
- Alliance partner AGL has first right to earn-in 50% by sole funding Confirmation Well



The Parachilna Geothermal Play located on the Northern Transmission Network 230km north of Port Augusta, SA.

SUMMARY

Torrens Energy is pleased to report the completion of additional intermediary "validation drilling" at its flagship Project, the Parachilna Geothermal Play in South Australia.

- An outstanding final heat flow of 115mW/m² has been independently verified for Melkor 1 (left), at a depth of 1,007m.
- Modelled temperatures of ~240°C at 4,500m have been validated, representing the highest modelled target temperature on the electricity grid in Australia.

Values are comparable to the best results returned from geothermal exploration in the traditionally explored Cooper Basin in South Australia, but with the clear commercial advantage of being located on the electricity grid.

Torrens Energy and AGL Energy Limited (AGL) entered into a development alliance in 2008, where AGL has a right to earn a 50% participating interest in the Project by sole funding the completion of a confirmation well to the target reservoir.

The Parachilna Confirmation Well Notice was formally served in October 2009 (ASX Announcement, 19 October 2009) which identified a reservoir target at 4,500m depth.

Independent reports validating the Melkor 1 result (presented here) and the refined target location were provided to AGL in February 2010, who have commenced their assessment.



Well head stem valve operations Parachilna 2008 (above), Watson Drilling Pty Ltd diamond drill rig (below) at Melkor 1 2009.



MELKOR 1 VALIDATION DRILL HOLE COMPLETED – 1,007m

The intermediary drill hole Melkor 1 aimed to validate at greater depths the heat flows recorded at the Parachilna Geothermal Play ‘hot spot’ identified in shallow exploration drilling (~500m) from 2007-2009. Melkor 1 also aimed to clarify important stratigraphic information for the refinement of a 3D-Temperature Field Model (3D-TFM) and modelled target reservoir temperatures.

Results were recorded from diamond drilling completed by Watson Drilling Pty Ltd in December 2009. A combination of rotary mud and diamond core drilling was undertaken to a depth of 1,007m. Casing was stepped from 8’ to 4½’ at 30 and 426m respectively, and then the hole completed [open] to final depth enabling temperature measurements to be taken once the core was obtained and the hole had been allowed to equilibrate.

Independently Measured Heat Flow

Torrens Energy commissioned Hot Dry Rocks Pty Ltd (HDRPL) to derive a heat flow value from thermal data extracted from Melkor 1. HDRPL relied on precision temperature logging and thermal conductivity data obtained to 945m and 1,000m respectively.

Continuous temperature logging was conducted at one metre intervals using portable thermistor-probe. Electrical resistance across the probe was measured downhole and then converted to temperature using a standard calibration. Temperature recordings were taken once the hole had been allowed to equilibrate for four weeks after drilling.

Thermal conductivity data were measured by HDRPL on solid core samples taken every 15 metre over the cored section of hole using a divided bar apparatus. Thermal gradient and thermal conductivity were then used to derive heat flow values over the cored section of the hole.

HDRPL concluded that a conductive heat flow model with an advective component above 650m gave an excellent fit to the thermal data collected, explained by a vuggy limestone enabling the “lateral flow of cool water” encountered in the well at that depth.

HDRPL concluded that the conductive heat flow is 115mW/m² (below) and that “this value will provide a robust basis for predicting temperatures at depth”.

Hole	Northing	Easting	Depth	GEL	mW/m ²
Melkor 1	6,549,201	227,8628	1,007m	230	115 ± 1.5

Coordinates are in the GDA 94 Datum, UTM (Zone 54) projection.
GEL = Geothermal Exploration Licence number.



Core sample from Melkor 1 showing horizontally layered siltstone (Billy Creek Formation, 570m).

Rocks have excellent measured insulating properties capable of generating high temperature gradients.



INDEPENDENT INTERPRETATION OF RESULTS

A reliable conductive surface heat flow value is critical for the confident prediction of temperature at depth, and generic modelling suggests that Torrens Energy requires a minimum heat flow of 90mW/m^2 to achieve attractive geothermal temperatures at target drill depths of about 4,500m.

Torrens Energy commissioned Hot Dry Rocks Pty Ltd (HDRPL) to provide high-level commentary on the state of exploration for geothermal resources at the Parachilna Geothermal Play in South Australia.

HDRPL broadly reviewed the results reported from each of the seven holes drilled and some 300 new core conductivity measurements collected at the Play since 2007, and their relationship to the results of Melkor 1 (above). At the Parachilna Play it was found that heat flow did not always conform to a purely conductive model in the shallow sections, but that:

“Torrens Energy has assembled the best practical dataset for constraining these parameters prior to deep appraisal drilling in the Parachilna Geothermal Play.....In my opinion there is little more that can be done to constrain the thermal properties prior to appraisal drilling.”

HDRPL conclude:

“The Parachilna Geothermal Play now represents the best-understood undrilled geothermal play in Australia. Torrens Energy has followed world’s best practice to measure and model heat flow and characterise the thermal properties of the expected geological section down to 5,000m depth.”

“Torrens Energy has succeeded in reducing the exploration risk associated with resource temperature to a minimum. The temperature structure of the Parachilna Geothermal Play is now understood with high enough confidence that further exploration expenditure aimed at heat flow and temperature assessment is not warranted.”

“It is apparent that fluid flow through an aquifer in the top several hundred metres of section is redistributing heat in the shallow section however, the basal heat flow is consistently 115mW/m^2 over a large area”.



View of the Northern Flinders Ranges, South Australia.

INDEPENDENT TEMPERATURE MODELLING

Conductive heat flow modelling is an industry-standard method for estimating temperature at undrilled depths, using measurements made in shallow boreholes.

By applying a heat flow of 115mWm² at the Melkor 1 locality, 3D-TFM [modelling] was completed to 5,000m, resulting in the following predicted temperatures, schematically shown on section (below):

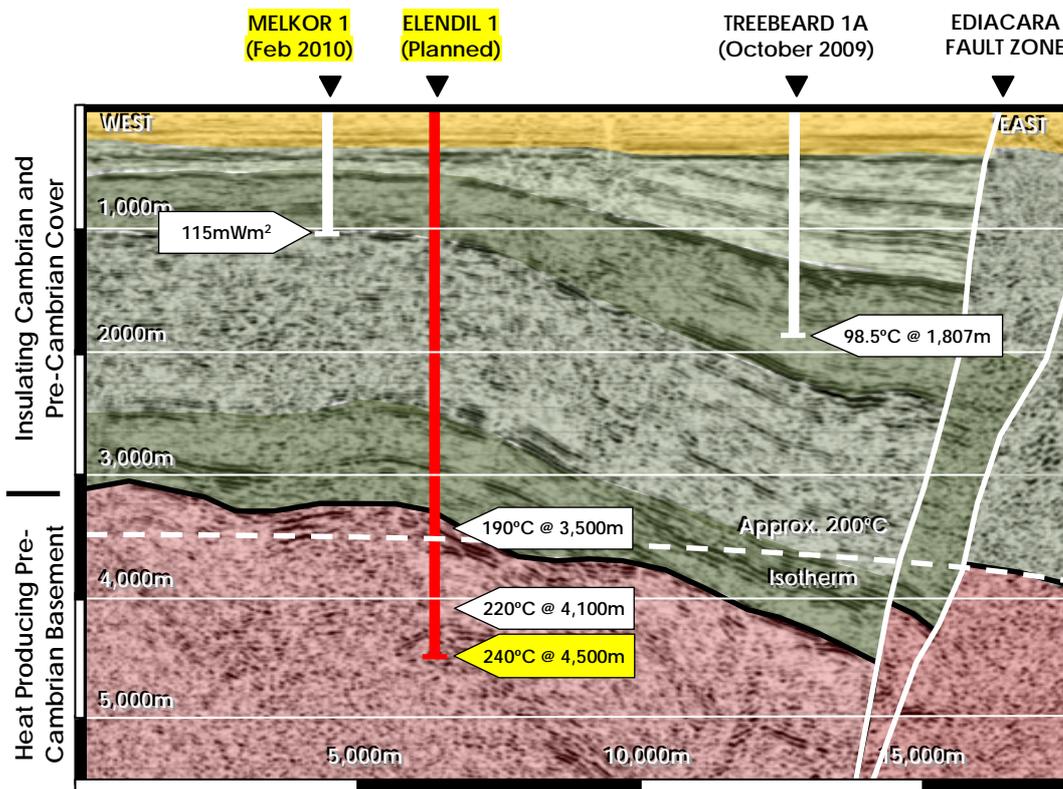
Depth to Base.	T °C @ Base.	Depth to 220°C	T °C @ 4,500m	T °C @ 5,000m
3,500m	190°C	4,100m	240°C	270°C

Base = interpreted Pre-Cambrian basement.
All values calculated for 115mW/m², verified by HDRPL.

HDRPL, having independently reviewed the results conclude:

“We are confident that the heat flow measured in Torrens Energy’s holes, combined with the thermal conductivity data from deeper units, is a sufficient basis upon which to predict these [exceptional] temperatures”.

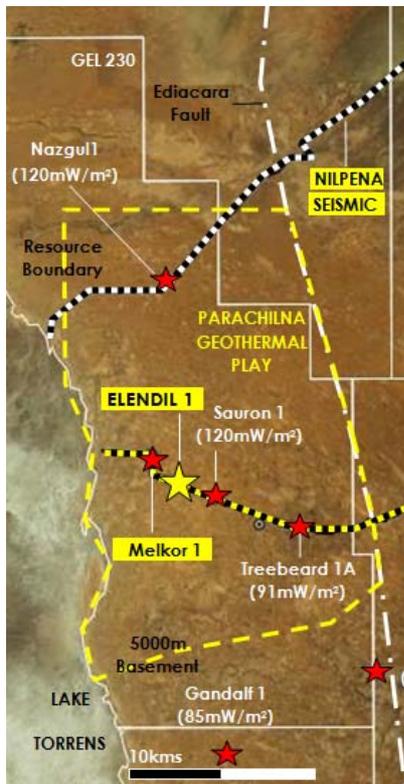
Torrens Energy point out the result is highly significant, in that targeted EGS geothermal temperatures in Australia and planned power production in Europe utilise reservoir temperatures ranging 150-200°C, well below those predicted for the Parachilna Play.



Seismic section showing insulating sediments (green) overlying interpreted heat-producing basement (red).

AGL ENERGY LIMITED (AGL)

Geothermal Alliance Agreement (GAA)



Parachilna Geothermal Play location diagram showing Melkor 1 and Elendil 1 locations.

AGL is Australia's largest integrated renewable energy company and largest private owner, operator and developer of renewable generation. Torrens Energy entered into a binding GAA with AGL in 2008, which included AGL acquiring a 9.99% cornerstone position in Torrens Energy.

The GAA provides for the joint development and commercialisation of base-load geothermal projects close to the National Electricity Market (NEM) in Australia. Under the arrangement Torrens Energy, as the upstream explorer, will continue to initiate geothermal projects through exploration activities including the systematic application of its 3D-Temperature Field Model (3D-TFM) exploration methodology across its geothermal landholdings in South Australia.

Once Torrens Energy has advanced its projects through to a deep drill ready status, AGL will have the right to earn a 50% interest in the geothermal resource by sole funding the completion of a 'Confirmation Well' to target depth at an estimated cost of approximately \$10-15m.

Elendil 1 Deep Confirmation Well – 4,500m

By late 2009 the Company had compiled the geotechnical information required by the GAA and served to AGL a Confirmation Well Notice and data package for proposed deep well Elendil 1 (ASX Announcement, 19 October 2009).

With the excellent heat flow result reported from Melkor 1 now incorporated into the Company's 3D-TFM, the deep geothermal well Elendil 1 has been refined and finalised as planned and in late January presented to AGL as a Supplement to the Notice from October.

Commenting on these results, AGL's Group General Manager Upstream Gas, Michael Moraza, said:

"AGL is pleased to receive the Confirmation Well Notice for the Parachilna Geothermal prospect. The modelled temperature of 240°C at 4,500m located within 20 kilometres of the NEM appears promising".

"A detailed review of the data provided to AGL has commenced and AGL will now evaluate the opportunity to exercise its rights under our agreement with Torrens Energy. The proposed well Elendil 1 will test this prospect with a view to confirming the potential for a future geothermal energy project in South Australia."

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SUMMARY

With the completion of Melkor 1 well below the porous limestone and associated advective heat flow zone, precision temperature logs to over 900m have allowed the most comprehensive and reliable dataset yet collected at the Parachilna Geothermal Play.

Combined with drilling and sampling since 2007, The Parachilna Play forms the best observed, recorded and independently verified “un-deep-drilled” temperature regime in Australia - Heat flows are now consistently in the range 110–115mW/m² over an spatially continuous area of more than 300 square kilometres.

Target refinement work at the Company’s first proposed deep geothermal confirmation well, Elendil 1, is now complete with predicted temperatures amongst the best in Australia and well above those targeted for base load geothermal power generation in Europe.

Elendil 1 is located just 20 kilometres from the Leigh Creek 132kV transmission line, which has been estimated to be capable of supporting the Project from pilot phase to small-scale power production for a connection cost of about \$10m -20m, representing a fraction cost faced by other Australian geothermal explorers.

Executive Director John Canaris concluded:

“The results are world class, which is a credit to efforts of the Adelaide based exploration team led by Chris Matthews (Chief Geologist) and Jerome Randabel (Exploration Manager).”

“The nature of the reservoir rocks at depth is now the primary geological uncertainty, which will remain until penetrated by a drill bit.”

“Upon closing the gate on exploration the next step in advancing the project will be the completion of Elendil 1 to the target reservoir by our alliance partners AGL Energy Limited, who have commenced their detailed assessment of the data provided” .

For more information please contact:

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 Executive Director
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The information in this report that relates to geothermal exploration results has been compiled by Chris Matthews. Mr Chris Matthews, a full time employee of the Company, has sufficient experience in the style of geothermal play under consideration to qualify as a Competent Person under the Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (2008 Edition). Chris Matthews has consented in writing the public release of this report in the form and context in which it appears.