

## **ASX ANNOUNCEMENT 21 AUGUST 2009**

### **Habanero 3 Well Incident Investigation**

Geodynamics, as operator of the Innamincka Joint Venture, has now obtained technical data relevant to its investigation into the well incident at Habanero 3 on 24 April 2009 and provides the following market update.

The technical data shows that:

#### *Cracking of the casing material was caused by hydrogen embrittlement*

- A combination of the fluid chemistry conditions experienced at Habanero 3, the high strength steel used for the two barrier casing strings and temperature fluctuations between flowing and shut-in conditions, led to hydrogen embrittlement conditions that made the casing steel more prone to cracking when stressed.

#### *Hydrogen embrittlement was caused by dissolved gases in the reservoir fluid*

- Hydrogen embrittlement occurred due to dissolved gases, principally carbon dioxide as well as hydrogen sulphide in the reservoir fluid, reacting with the high strength steel casing material thereby releasing free hydrogen, which in turn was absorbed by the steel casing materials in the low temperature zone of the well under shut-in conditions.

In light of these findings, the Joint Venture has taken various steps to ensure the security of existing wells that have come into contact with the reservoir fluid including installing cement plugs in Habanero 2 and Habanero 3. Steps to secure Habanero 1 are also underway.

### **Forward Work Program**

Following the investigation, the Joint Venture parties are now deliberating on the most appropriate way forward for the project.

The implications of the findings for future well design, material selection and any revision of operational procedures are complex, but are within the bounds of general operational experience in the geothermal industry. Available options will be critically examined and assessed resulting in a revised work program for the project.

These activities will take at least eight weeks, and may lead to a revision of the previously indicated delay of six to nine months in the commissioning of the 1MW Pilot Plant. The revised work program and project delivery timelines will be communicated as they are finalised.

In the meantime, the Joint Venture is continuing the process of planning the deep stimulation of Jolokia 1 and procurement of the necessary equipment and materials to undertake the stimulation.

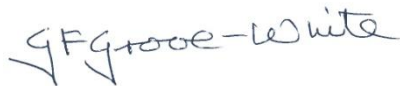
## Other Matters

The Company confirms that it had well control insurance in place at the time of the incident and has lodged a claim in which it seeks to recover most of the costs of the well control operation. The Company also intends to lodge a further claim to cover the expected costs of drilling a replacement well for Habanero 3.

The Company believes that the incident will not have a material impact on its long term strategy for large scale geothermal power generation in the Cooper Basin. To further support its capacity to deliver the project, the Company has continued to strengthen its resources with key appointments being made in the well design and engineering, drilling operations, reservoir engineering and geosciences disciplines.

Geodynamics would like to thank our shareholders for their patience during the course of this incident and subsequent complex and detailed investigation.

For further information please check our website ([www.geodynamics.com.au](http://www.geodynamics.com.au)) or contact our information service on 1300 796 612. Media representatives should contact Andrew Crook on 0419 788 431.



Gerry Grove-White  
Managing Director

Participants in the Innamincka Joint Venture are:  
Geodynamics Limited (Operator) – 70%  
Origin Energy Geothermal Pty Ltd\* – 30%

\*A wholly owned subsidiary of Origin Energy Limited (ASX: ORG)