



GEODYNAMICS
LIMITED

QUARTERLY REPORT
PERIOD ENDING 31 December 2012

power
from the earth.



Review of the Quarter

HIGHLIGHTS

The Company has had a very positive quarter, with activities predominantly focused on reservoir testing at the Habanero Project. A series of open flow tests were completed with encouraging results, as well as a major stimulation at Habanero 4. It also saw the acquisition of its first international project, through the signing of an earn-in joint venture with Kentor Energy.

FOLLOWING IS A SUMMARY OF HIGHLIGHTS FROM THE QUARTER:

- Successfully conducted open flow testing at Habanero 4. The first open flow test achieved the planned maximum of 35 kg/s at a flowing pressure of 27.7 MPa (4,020 psi). Following a local stimulation the second flow test achieved increased flow of 38 kg/s at 29 MPa (4,200 psi).
- During the quarter the major stimulation at Habanero 4 was completed. Over a period of 14 days commencing 17 November over 24, 000 micro seismic events were detected.
- A two stage earn-in and joint operating agreement was entered into with Kentor Energy Pty Ltd, a subsidiary of Kentor Gold Ltd, to acquire up to a 70% interest in a conventional geothermal project on the island of Savo in the Solomon Islands.

The Company's cash position at the end of the quarter stood at \$ 24.7 million.

*Cover: Steam flow during well cleanup operations
This page: Piping at Habanero 4*



Letter to Shareholders

Dear Shareholder

The December quarter continued to bring good results for Geodynamics, capping off what has been a successful and safe twelve months of operation and activity in the Cooper Basin. Having completed the drilling of Habanero 4 in September, a key focus this quarter lay with well and reservoir testing. The first flow of Habanero 4 occurred on 17 October with the commencement of clean-up activities, with the first plume of steam being observed early the next morning. The successful clean-up flow was an important first step in our well testing program, showing encouraging early results.

We were further encouraged by the results of the first and second open flow tests that occurred in mid November, with the first test occurring prior to local stimulation and the second test occurring after local stimulation. The first open flow test achieved the planned maximum production rate of 35 kg/s with well head pressure of 27.7 MPa (4,020 psi). Following the local stimulation which was conducted over a two day period, the second open flow test achieved an average flow rate of 38 kg/s for 84 minutes at a flowing well head pressure of 29 MPa (4,200 psi). The recorded temperature at 4,147 m below the rotary table was 241°C.

These flow rates are the highest production results so far achieved at the Habanero location and reaffirm our views of the quality of the Habanero 4 well. The results achieved here exceed those achieved at Habanero 3 which recorded a stabilised flow of 27 kg/s, post local stimulation. The high productivity and temperatures recorded during these tests again confirms the quality of the Habanero resource in the Cooper Basin.

Following these two flow tests we conducted a major stimulation of the Habanero reservoir, injecting 34 million litres of fresh water over 14 days. The successful and safe completion of this major stimulation has provided us with a significant amount of data that is currently being processed and analysed to further understand the behaviour of the fracture system at Habanero. The stimulation created more than 24,000 microseismic events extending up to 1,500 m from the well bore. The initial assessments of the events suggest that the permeability of the existing reservoir has been significantly enhanced during the stimulation, improving the productivity and injectivity of the reservoir.

We are now installing the pipe work for closed loop operations before conducting the third and final open flow test in March, which will be followed by the closed loop commissioning. The 1 MWe Habanero Pilot Plant will be commissioned in April with the extended trial running through to the middle of the year.

This quarter also marked a significant achievement with Geodynamics' acquisition of its first international project. Geodynamics has entered into a Joint Venture with Kentor Energy Pty Ltd, a subsidiary of Kentor Gold Ltd, to acquire up to a 70% interest in the Savo Island Geothermal Power Project in the Solomon Islands. Based on initial exploration studies, the project is highly promising indicating high temperatures, in excess of 260 °C at relatively shallow depths of 500-1,500 m.

This is a conventional volcanic geothermal project, and projects of this kind have been successfully developed in New Zealand, Philippines, Iceland and other countries. The project will aim to displace expensive power currently supplied by diesel generation. Notably the project is located within 35 km of the significant market of Honiara, the capital of the Solomon Islands and the Gold Ridge gold mine.

During the quarter we completed the magneto-telluric (MT) survey of Savo Island; the first stage in the initial exploration program. At the time of writing the data had just been received with positive initial interpretations.

Finally, I wish to thank shareholders who attended our recent Annual General Meeting (AGM) held in Brisbane on 29 November 2012, and the large number who participated via live webcast. For those of you who were unable to attend, I invite you to view the archived webcast presentation through the BRR Media page within the Investor Centre at www.geodynamics.com.au.

Regards

Geoff Ward

Managing Director and Chief Executive Officer



Mr Geoff Ward,
Managing Director and
Chief Executive Officer



Operations Update

Innamincka Deeps EGS Project Update

HABANERO 4 WELL TESTING AND RESERVOIR DEVELOPMENT

Following completion of the well and installation of the temporary open flow system, Habanero 4 was opened up for clean-up flow on 17 October. This initial flow was designed to flush drilling mud out of the well bore and leave the well ready for open flow testing. The well performed as expected and over four days of intermittent operations produced approximately 1,100 m³ of completion brine, drilling mud and formation brine into a lined pit on surface. The maximum rate recorded during this clean-up flow was approx 30 kg/s and the maximum flowing temperature recorded at surface was 203°C. After this clean-up flow the well was shut in whilst the equipment for testing and stimulation was assembled on site.

The first open flow test commenced on 10 November. A new pressure and temperature sonde, designed for long-term use in high temperature wells, was deployed in the hole. Unfortunately, even though the sonde had been tested earlier in a high temperature well, it failed at Habanero and had to be removed without recovering any useful data. An alternate, older technology, pressure and temperature sonde was deployed instead. This device performed well, although it could only be left in the hole for a few hours to avoid overheating.

The first open flow test included flow at several rates to investigate the flow behaviour immediately around the well bore. Fluid samples were captured at surface and also down hole using custom-built titanium fluid samplers. The final high rate flow period achieved a flow of approximately 35 kg/s for 52 minutes. Flowing wellhead pressure declined slowly during this high rate test, reaching 27.7 MPa (4,020 psi) before the well was shut-in.



Case study

PRODUCTION LOG

The production logging tool pictured left was used in Habanero 4 to record the rate of flow within the well during production testing. The tool has a small turbine blade or spinner located within a protective housing. This spinner turns as the fluid flows past the blades and the rate of rotation is recorded.

The spinner can be jammed by rock chips in the well and the picture shows a chip of granite caught in the spinner housing.

On 13 November, an initial, local stimulation of the well commenced. Over two days, 2.5 ML (15,800 bbl) of fresh water was pumped into the well at various rates. The maximum rate pumped was 52.5 L/s (19.8 bbl/min) at a maximum surface pressure of 44.2 MPa (6,411 psi). The apparent injectivity recorded in this local stimulation is approximately four times that recorded at Habanero 3 in 2008. The seismic network recorded over 1,900 seismic events during this local stimulation, with a maximum event magnitude (M_L) of 1.9.

The second open-flow test commenced on 15 November and again included flow at several rates, similar to the sequence in the first flow test. Flowing pressures were noticeably higher during this second test, indicating improved connection between the reservoir and the well bore as a result of the local stimulation. The final high rate flow period achieved a stable rate of approximately 38 kg/s for 84 minutes with flowing well head pressure declining slowly to a minimum of 29 MPa (4,200 psi). From these test results it is clear that even higher open flow rates could be delivered by Habanero 4 if larger draw down pressure were applied.



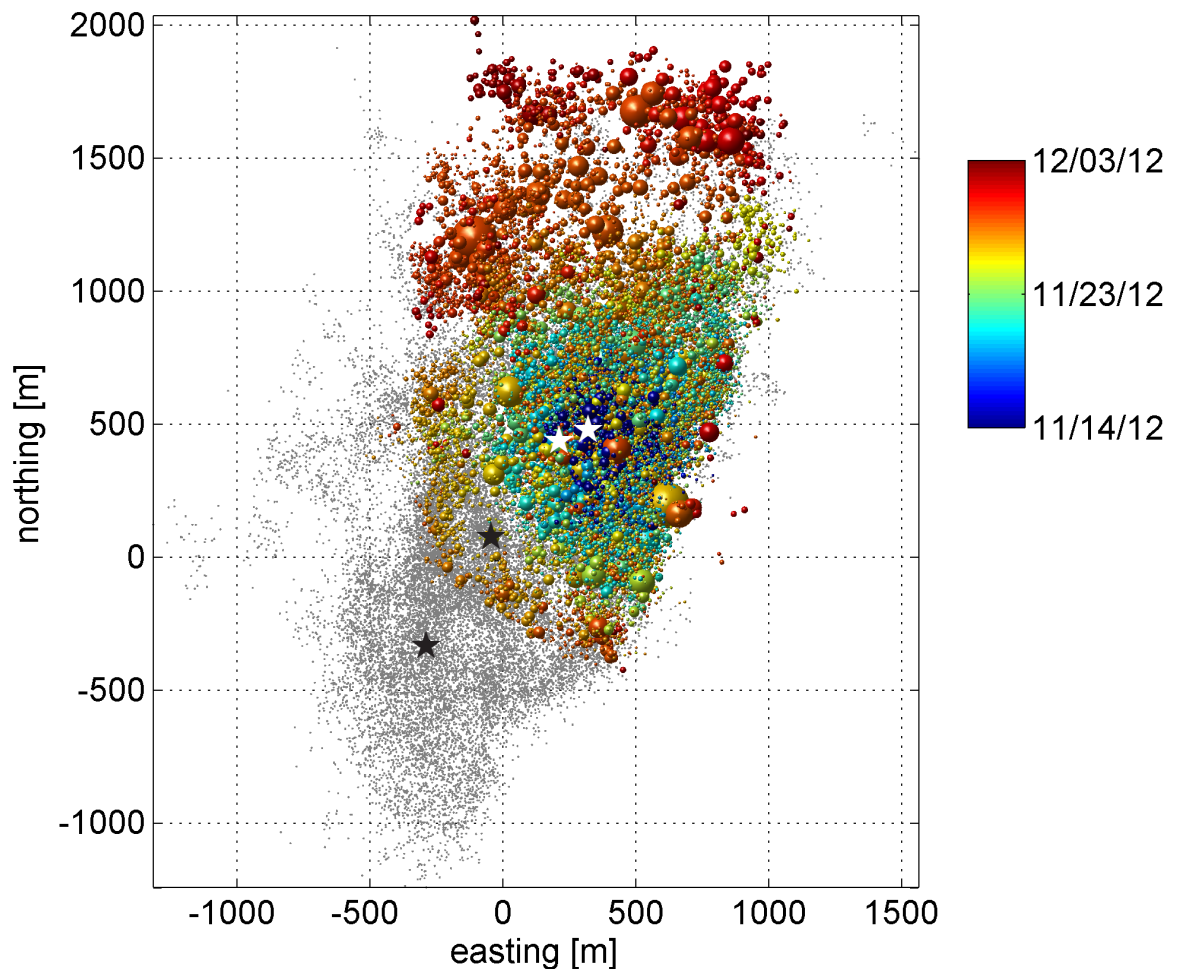
Operations Update

HABANERO 4 WELL TESTING AND RESERVOIR DEVELOPMENT CONT.

On 17 November, a second, extended stimulation of the well commenced. Over 14 days of continuous pumping, 34.2 ML (215,000 bbl) of fresh water was injected into the well at increasing rates. The maximum rate pumped was 48.0 L/s (18.1 bbl/min) at a maximum surface pressure of 49 MPa (7,000 psi). During the extended stimulation and subsequent pressure decline, more than 24,000 seismic events were detected with a maximum event magnitude (M_L) of 3.0. The figure below shows the areal extent of the detected seismic events from both the local and extended stimulations, extending up to 1,500 metres away from the well.

The data from the well tests and the stimulations is currently being processed and analysed to further understand the behaviour of the fracture system at Habanero. The reservoir is being allowed to re-establish equilibrium conditions before conducting a third open flow test, estimated to be carried out in March 2013.

Cumulative Seismicity Map 2012 Habanero 4 Stimulation



Cumulative seismicity from 14 November through to 3 December 2012. The change in colour denotes the date of seismic event and size of sphere represents the magnitude of the event. The grey dots denote seismicity from previous 2003 and 2005 stimulations.

★ Habanero wells



Operations Update

SURFACE WORK- PREPARATION FOR CLOSED LOOP TESTING

The 1 MWe Habanero Pilot Plant refurbishment and closed loop construction have progressed well during the quarter and are nearing completion. The final components are currently being constructed and installed with work to be completed mid February, prior to commissioning in April.

In late December the brine reinjection pump and seal was successfully assembled and tested. The pump has been delivered to site and is scheduled for installation in early February. Programming of the Distributed Control System (DCS) is a current priority. This system monitors and controls all components of the 1 MWe plant and closed loop circulation system. Once programming is completed the DCS software will be uploaded at site, tested for connectivity, and commissioned.

HABANERO 1 REFURBISHMENT

All components of the 'Christmas Tree' valve assembly above the lower master valve have been replaced during this quarter, with the next step being the removal of the plug. To complete this operation Geodynamics are awaiting the arrival of a coil tubing unit, which has been delayed due to extension in operations at its current oil and gas deployment. Post the reporting period the supplier has confirmed that a unit will be available at the end of February.

Habanero 1 will be used as the injection well, connecting with Habanero 4 through the fractured reservoir to form the closed loop.

GDY HotSpot

HABANERO 1 MWE PILOT PLANT - HOW IT WORKS AND ITS MAJOR COMPONENTS



In the first *GDY HotSpot* for 2013 we invite you to view a presentation on the 1 MWe Habanero Pilot Plant by our Mechanical Engineer, Ben Humphreys. If you have ever wondered how a power plant operates and how the 1 MWe Habanero Pilot Plant will run once it's been commissioned, then this presentation will provide you with an inside view. The presentation can be accessed from the Geodynamics home page

The *GDY HotSpot* email newsletter is a short informative update on our projects, designed to provide further insight into Geodynamics' day to day operations and background to some of the more technical processes. To receive Company updates and the *GDY HotSpot* sign up to email alerts from the home page www.geodynamics.com.au



Exploration Projects

SAVO ISLAND GEOTHERMAL POWER PROJECT

The signing of a two stage earn-in and joint operating agreement with Kentor Energy Pty Ltd, a subsidiary of Kentor Gold Ltd, was announced in November. Under the agreement, Geodynamics can acquire up to a 70% interest in a conventional geothermal power supply project in the Solomon Islands.

The agreement specifies that, Geodynamics is entitled to earn an initial 25% interest in the Savo Island Geothermal Power Project following the completion of initial geophysical studies to determine target locations for a drilling program. The Company has the right to earn an additional 45% interest through exploration drilling and the completion of a feasibility study for the project.

Savo Island

The project is located on the island of Savo, 14 km off the north coast of Guadalcanal where a volcanic based geothermal resource has been identified. Preliminary exploration studies indicate that the island could host a substantial geothermal reservoir at temperatures in excess of 260 °C and at depths of 500 - 1,500 m.



Left: Map locating Savo Island; a fumarole on Savo, one of many surface manifestations; view back to Guadalcanal



Exploration Projects

SAVO ISLAND GEOTHERMAL POWER PROJECT CONT.

Honiara, the capital city of the Solomon Islands has a current maximum demand of 14 MW. Local electricity is derived from high cost diesel resulting in consumers having to pay among the world's highest prices for power, currently around A\$0.80 per kWh*. Additional customer demand for the geothermal project is possible through supply to the Gold Ridge Mine, recently acquired by St Barbara Limited.

The project has strong support from the local community on Savo Island, as well as the Central Province Assembly and the Solomon Islands Government. A Surface Access Agreement has been signed and is in place with customary landowners on Savo to undertake initial fieldwork and surveying.

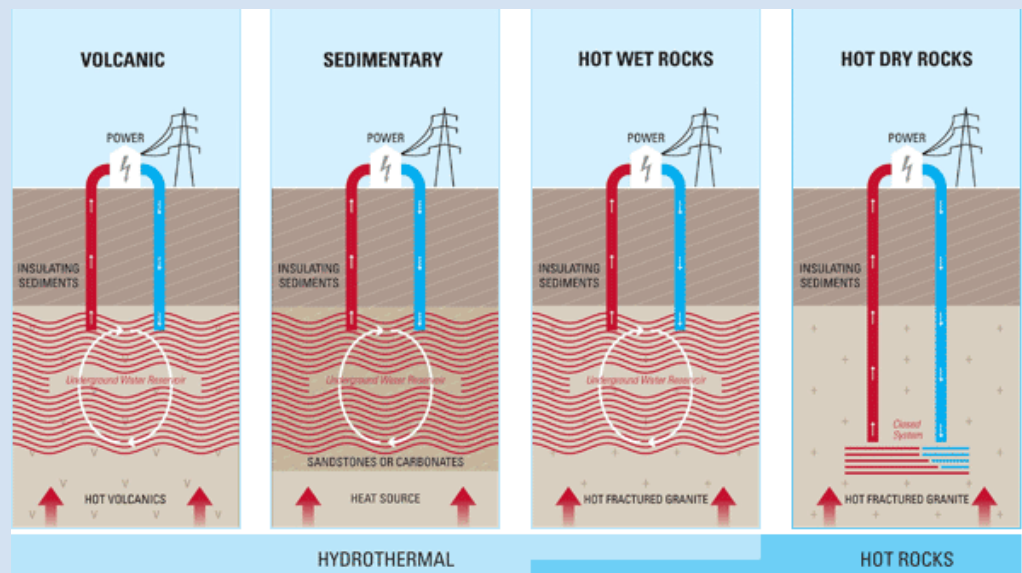
A 3D MT (magneto-telluric) survey was completed in October 2012 by Fugro Ground Geophysics Pty Ltd. Geodynamics is targeting release of a maiden inferred resource statement for the project by June 2013.

** Source: Solomon Islands Electricity Authority: Tariff as at 4th Quarter 2012.*

Caste Study

CONVENTIONAL GEOTHERMAL

Both enhanced geothermal systems and conventional geothermal systems make use of naturally occurring heat to produce power. Conventional geothermal systems however are associated with areas of volcanism, such as Iceland, New Zealand and USA. These conventional systems have high temperatures at relatively shallow depths. Examples of power stations operating from conventional systems include the Svartsengi Power Station, in Iceland which feeds its water into the Blue Lagoon; and the Geysers complex north of San Francisco which encompasses 22 geothermal power plants.



Source AGEA



Exploration Projects

GOVE PENINSULA

During the quarter initial desktop exploration and geological data was received and is currently being reviewed. Geodynamics also met with representatives of Gulkula Mining and Pacific Aluminium to discuss project development. Geodynamics is currently awaiting the decision on the future of the Pacific Aluminium's alumina refinery, and as such are not planning on undertaking any immediate activities in the Northern Territory.

HUNTER VALLEY

As reported, Geodynamics continues to concentrate its activities on the Innamincka Deeps EGS project and the plans to progress other prospective opportunities the Savo Island Geothermal Project and the Gove Peninsula Direct Heat Geothermal Project. Given this, Geodynamics has no immediate plans for exploration drilling in the Hunter Valley permits due to the high risk nature of this exploration activity. The company and has elected to withdraw from both the NSW Renewable Energy Fund grant which was awarded to the project by the NSW Government Office of Environment & Heritage and the Geothermal Drilling Program grant which was awarded to the project by ARENA. Neither of these grants had been drawn upon since they were awarded.

Geodynamics thanks both the NSW Office of Environment & Heritage and ARENA for the support shown to the project and for the broader Australian geothermal industry.

Government Update

CLIMATE CHANGE AUTHORITY - REVIEW OF RENEWABLE ENERGY TARGET

In December the Climate Change Authority released its final report on their statutory review of the Renewable Energy Target. The primary finding was to recommend leaving the existing Large-scale Renewable Energy Target unchanged at 41,000 GWh. Confidence and policy stability are critical for ongoing investment in renewable energy, thus Geodynamics supports this recommendation and advocates for its implementation.



Investor and Public Relations

2012 ANNUAL GENERAL MEETING REVIEW

The 2012 Annual General Meeting was held at the Marriott Hotel in Brisbane on 29 November. The meeting was well attended by over 80 shareholders, with a further 120 joining online via live interactive webcast.

An archived copy of the Chairman's address and Managing Director's presentation from the AGM can be viewed at <http://geodynamics.com.au/Investor-Centre/Boardroom-Radio.aspx>

AGM RESOLUTIONS

All resolutions for consideration were passed at the meeting. Results of the voting at the AGM were lodged on 30 November and are available in the ASX Announcements section under Investor Centre on the Company website www.geodynamics.com.au

CHANGES TO THE BOARD

Mr Minesh Dave retired as a Non-executive Director of the Geodynamics Board at the conclusion of the Annual General Meeting on 29 November 2012. As a result, Dr Prame Chopra who was acting as Alternate Director for Mr Dave has also retired from the Board. Dr Chopra was a founding Director of Geodynamics and has provided a substantial contribution to the Company's development over many years. The Directors wish to acknowledge the contribution of Mr Minesh Dave and Dr Prame Chopra to Geodynamics

The Managing Director presentation from the 2012 Annual General Meeting is available for viewing at www.brrmedia.com/event/104577

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Geodynamics Limited
2012 Annual General Meeting:
Operations review
Market outlook
Cooper Basin development
New projects

Chapters

1. Geodynamics Limited 2012 Annual General Meeting
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3. Agenda
4. Highlights
5. Financial Management
6. Operations Review
7. Open flow testing

Presentation details

Geodynamics 2012 Annual General Meeting

Geoff Ward, CEO & Managing Director

Corporate Directory

BOARD OF DIRECTORS

Mr Keith Spence
(Non-executive Chairman)

Mr Geoff Ward
(Managing Director and CEO)

Mr Bob Davies
(Non-executive Director)

Dr Jack Hamilton
(Non-executive Director)

Mr Michel Marier
(Non-executive Director)

Mr Andrew Stock
(Non-executive Director)

COMPANY SECRETARY

Mr Tim Pritchard CPA CSA (CERT)

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SECURITIES EXCHANGE LISTING

Geodynamics Limited shares are listed on the
Australian Securities Exchange,
ticker: GDY

