



GEL 223
ANNUAL REPORT
YEAR 1
24 July 2007 to 23 July 2008

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1. Permit Administration

1.1 Period

This report covers the activities for Year 1 being the period of 24 July 2007 to 23 July 2008.

1.2 Permit Details

Exploration licence GEL 223 was granted on 24 July 2007 for an initial term of 5 years. It has an area of approximately 493 km².

There was no change in the area or the permit boundaries during the year.

1.3 Permittees

The permit was awarded to Osiris Energy Pty Ltd as sole permittee. There was no change in Working Interests during the period. During the year Osiris Energy became a public company and changed its name to Osiris Energy Ltd.

1.4 Operatorship

The Operator of the permit is Osiris Energy Ltd. There was no change of Operator during the period.

1.5 Variation to work programme

There has been no variation to the work programme during the year.

2. Work Programme Requirements

The work programme for GEL 223 is shown below.

Year of Term of Licence	Minimum Work Requirements
1	Review existing geological and geophysical data. - Complete
2	Measurement of detailed geothermal gradients in relevant and accessible water wells; Conduct infill geophysical surveys if required; Geological and geophysical studies.
3	Seismic reprocessing; Geological and geophysical studies.
4	Conduct shallow pilot drilling and measure detailed geothermal gradients; Design and plan a demonstration heat exchange plant.
5	Drill 1 deep well; Measure detailed geothermal gradient.

3. Compliance with the Petroleum Act (Reg. 33)

3.1 Summary of the regulated activities conducted under the licence during the year

Osiris Energy Ltd has not undertaken any regulated activities as defined under the Petroleum Act in GEL 223 during the licence period to date. In November 2007 Adelaide Energy Ltd advised that, as operator of an overlapping petroleum licence, they were planning to undertake 3D seismic acquisition within GEL223. Osiris supported this acquisition. On the 25th January 2008 Rawson Resources Ltd advised that, as holder of petroleum exploration licence PEL155, they planned to acquire a 3D seismic survey (Nangwarry). Osiris supported this acquisition. On 3rd July 2008 Panax Geothermal, as operator of geothermal exploration licences in the region requested permission to acquire a magneto-telluric survey over GEL223. Osiris supported this acquisition, although it was understood it did not proceed in GEL223.

3.2 Report for the year on compliance with the Act, these Regulations, the licence and any relevant Statement of Environmental Objectives

Given that no regulated activities were undertaken during the reporting period, many of the regulations are inapplicable at this stage and no non-compliances have been noted.

3.3 Statement concerning any action to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of the recurrence of any such non-compliance

Osiris Energy Ltd recognises the importance of achieving regulatory compliance and operating in an environmentally and socially responsible manner.

3.4 Summary of any management system audits undertaken during the relevant licence year, including information on any failure or deficiency identified by the audit and any corrective action that has, or will be, taken

Osiris Energy Ltd is a new company and is developing appropriate systems and documentation to cover Field Operations, Environmental Management, Health and Safety issues and compliance checklists to ensure the requirements of relevant Acts and Regulations are met. Osiris' activities have been essentially desktop studies at this stage and no management system audits have been undertaken as yet.

3.5 List of all reports and data relevant to the operation of the Act generated by the licensee during the relevant licence year

The work undertaken to date has been compilation of geographical information systems in mapping and seismic interpretation software, and their interpretation. No reports have been generated as yet.

No new surveys or data relating to the tenement have been acquired.

3.6 Report on any Incidents reportable to the Minister under the Act and Regulations during the relevant Licence Year

No reportable incidents occurred.

3.7 Report on any reasonably foreseeable threats (other than threats previously reported on) that reasonably present, or may present, a hazard to facilities or activities under the licence, and a report on any corrective action that has, or will be, taken

No threats have been identified.

3.8 Statement outlining operations proposed for the ensuing year

Operations will focus on more detailed modelling of reservoir conditions in GEL223. The available thermal data from petroleum wells is adequate to determine temperatures at the target Pretty Hill Formation sandstone and no measurement of additional water bores is considered relevant. The 3D seismic data will continue to be interpreted to improve the prediction of reservoir quality and estimates of permeability and porosity calibrated to wells, through seismic inversion and multi-variant statistical analysis using third parties Ginkgo ENP GNG and Schlumberger. In addition, reservoir modelling of the Pretty Hill over the Penola Trough will be modelled using TOUGH2. This will allow play fairways to be mapped and more accurate economic models determined for the geothermal potential of the licence.

4. Work Undertaken

Work undertaken in Year 1 over GEL223 has focussed on seismic interpretation and petrophysical evaluation of the available seismic data and selected petroleum wells.

An SMT (Kingdom Suite) project has been assembled with all relevant wells, seismic and culture data. A database of 20 deep petroleum wells is available in GEL223, together with good quality 3D seismic data in the Balnaves – Haselgrove 3D and numerous 2D surveys. In addition, many wells available in the vicinity of GEL223 provide regional information for the Penola Trough. A separate report on this has been generated and submitted to PIRSA.

Seismic interpretation of these data were initiated on an SMT workstation. Petrophysical re-interpretation of the wells Balnaves-1, Haselgrove South-2, Jacaranda Ridge-1, Katnook-2, Ladbroke Grove-1, Pyrus-1, Redman-1, Sawpit-1 and Wynn-1 was undertaken. Separate data has been submitted to PIRSA. The porosity log that was determined was correlated to available core plugs to derive a porosity/permeability relationship and to determine the transmissivities of the penetrated Pretty Hill Formation sections. From these, end member transmissivities of between 6-8Dm in Katnook-2 and 20-50Dm in Ladbroke Grove-1 were estimated. The higher permeability sections are correlated with channel fill sequences, which may be evident on the 3D seismic data.

It is predicted that by processing and interpreting the high quality 3D seismic that are available over GEL 223, we will be able to obtain a separate and independent measure of the porosity. Then, by correlating the 3D porosity measurements from the seismic with the porosity measurements from the logging of wells and laboratory measurements of drill core, we are able to map the porosity and also permeabilities between wells. This lateral mapping of the porosity is predicted to be a blue print for a geothermal energy production plan.

5. Annual expenditure

An estimate of expenditure on regulated activities conducted under GEL 223 licence for the Year 1 licence year, showing expenditure under each of the following headings, is shown below:

Commercial in Confidence