Level 7, Ferrari House, 28-30 Grenfell St, Adelaide SA 5000 p +61 8 8212 0579 f +61 8 8212 2230 www.earthheat.com.au

Earth Heat Resources Limited

Annual Report for combined GEL's

GEL's 503-504-505-506-507

Year 1 Summary -- 18/12/2009 to 17/12/2011

GELs Granted 18 December 2009

Submitted 22nd October 2012

Level 7, Ferrari House, 28-30 Grenfell St, Adelaide SA 5000 p +61 8 8212 0579 f +61 8 8212 2230 www.earthheat.com.au

earthheat
Level 7, Ferrari House, 28-30 Grenfell St, Adelaide SA 5000 p +61 8 8212 0579 f +61 8 8212 2230 www.earthheat.com.au

1. Introduction

This report has been submitted late, and therefore represents Non-Compliance with obligations and regulations under which title has been granted.

Geothermal Exploration Licences (GELs) 503-504-505-506 & 507 were granted on 18 December 2009 for an initial period of 5 years. Subsequently due to various perilous market circumstances, additional suspensions have been granted for these tenements extending the expiry date to 17 December 2015.

.

2. Work Requirements

The 5-year work program for GELs 503, 504, 505, 506 & 507 as outlined in the original GEL application, is summarised below.

YEAR	ACTIVITY
1 18-12-2009 to 17-12-2011	Geological investigation largely comprising field mapping, interpretation and review
2 18-12-2011 to 17-12-2012	Geological investigation largely comprising field mapping, interpretation and review
3 18-12-2012 to 17-12-2013	Geophysical data acquisition of up to 150 MT stations, and investigation, conductivity study Geological interpretation
4 18-12-2013 to 17-12-2014	Geological and Geophysical studies
5 18-12-2014 to 17-12-2015	Fully cored stratigraphic drill holes to a depth of 500m each and geological and geophysical studies Logging suite (if appropriate), and direct borehole heat measurements; and Geological and geophysical studies

This work program is a cumulative program across all 5 GELs. Each GEL therefore represents 1/5th of the yearly estimated expenditure.

On 27 July 2010 the GELs were suspended for a period of 12 months from 21 July 2010 to 20 July 2011.

3. Work Conducted

The mapping program planned for Year 1 was postponed due to extenuating circumstances. The licences were suspended multiple times, and application has been made for these GELs to be consolidated. Subsequently, Earth Heat requested a variation of the work program that included a preliminary desktop study of available public domain data. The datasets included:

- PEPS-SA database
- Regional gravity and magnetic images
- Geoscience Australia XY Geotherm 94 Database
- SARIG

Aspects of this background geological and geophysical study, applicable to the GELs were then compared with selected research areas of the company's geological consultant Dr Ian Dyson where these areas were outside of GELs currently held by Earth Heat.

The outcrop geology of the tenements is dominated by the Neoproterozoic succession of the Adelaide Geosyncline.

Tectonic breccias comprising sediments of the Callanna Group, previously interpreted as diapirs, commonly rim synclines and penetrate anticlines cored with Saddleworth Formation of the Burra Group. Synclines are filled with siltstone, shale and limestone of the Tapley Hill Formation, Tarcowie Siltstone, Ulupa Siltstone, Bunyeroo Formation and Wonoka Formation. Each of these formations is considered to be of low thermal conductivity.

Glacial sediments of the Sturtian Tillite and Elatina Formation are considered good thermal conductors. The diapirs comprising deformed Callanna Group sediments are considered good thermal conductors, especially where they are attached to Mesoproterozoic basement. If these assumptions are shown to be correct during the course of the exploration program, it will confirm that much of the sedimentary cover in these synclines is insulating enough to create high heat flow through glacial sediments of the Umberatana Group.

Preliminary studies have focused on the nature of faulting that is closely associated with anticlines cored by diapiric sediments of the Callanna Group. Many faults also run along the hinge of anticlines that commonly emanate from diapiric cores. It is anticipated that new mapping will extend the depth to the keel of synclines, thus improving the heat flow potential of the glacial units immediately below the Tapley Hill Formation. Of particular interest will be the degree of deformation in the footwall versus deformation in the hanging wall, and the potential influence on heat flow.

4. Expenditure

Refer Appendix 1

earthheat
Level 7, Ferrari House, 28-30 Grenfell St, Adelaide SA 5000 p +61 8 8212 0579 f +61 8 8212 2230 www.earthheat.com.au

5. Compliance with the Petroleum and Geothermal Energy Act 2000

(Regulation 33 Section 2)

(a) Summary of regulated activities conducted under the licence during the year.

Earth Heat has not undertaken any regulated activities under the Petroleum and Geothermal Energy Act 2000 in these GELs during the licence period to date.

(b) Report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives.

Earth Heat did not carry out the mapping program as contemplated under the Year 1 minimum work requirement, as tabulated above, and was therefore non-compliant with the licence conditions. This arose because of a major funding deficiency as a consequence of the global financial crisis in 2008 which is still depressing markets today.

(c) Actions 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.

Earth Heat recognises the importance of achieving regulatory compliance. Once it was determined that the company was unable to satisfy the work program as originally planned.

(d) 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.

No management system audits were conducted, but Earth Heat subscribes to Quality Assurance Management based on Deming principles.

(e) List all reports and data relevant to the operation of the Act during the relevant licence year

None, as the work undertaken was primarily involved with desktop studies. Therefore, no operational reports were generated.

(f) Report of incidents reportable to the Minister under the Act and regulations.

None reported.

(g) Report on any reasonably foreseeable threats 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 identified.

(h) Operations proposed for the ensuing year.

The work program for Year 2 of those areas formerly covered by the GELs will be discussed with PIRSA once amalgamation has been ratified. Earth Heat intends to be compliant with provisions for the new work program, though it is also looking to relinquish some or all of its ground in South Australia.

5. Expenditure for Year 1

Expenditure for the first year of the GEL's was approximately $12,500

earthheat
Level 7, Ferrari House, 28-30 Grenfell St, Adelaide SA 5000 p +61 8 8212 0579 f +61 8 8212 2230 www.earthheat.com.au

APPENDIX 1

The expenditure in the area amounted to $12,500 being consulting fees for third party services in planning to undertake field activities.