

**INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR
GEOTHERMAL EXPLORATION LICENCE GEL 503**

1. 18 December 2009 Geothermal Exploration Licence GEL 503 granted

 Interests:

 Earth Heat Limited 100%

 Expiry Date: 17 December 2014
2. 18 December 2009 Memorandum entering the grant of GEL 503 on the public register.
3. 23 December 2009 Gazettal of grant of licence.
4. 4 June 2010 Memorandum entering notation of change of company name on the public register.

 From: Earth Heat Limited
 To: Earth Heat Australia Pty Ltd
5. 27 July 2010 Suspension of licence for the period from and including 21 July 2010 to 20 July 2011.

 GEL 503 is now due to expire 17 December 2015.
6. 27 July 2010 Memorandum entering suspension of licence on the public register.
7. 5 August 2010 Gazettal of suspension of licence.
8. 11 January 2012 Consolidation of licence area with GELs 337, 338, 339, 503, 504 and 507 subsequent revocation of licence.
9. 11 January 2012 Memorandum entering consolidation of licence area and revocation of licence on the public register.

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 337, 338, 339, 503, 504 and 507

1. Consolidation of the adjacent licence areas of GELs 337, 338, 339, 503, 504 and 507, whereby the consolidated licence area is now designated as GEL 337 is hereby entered on the public register.

The total area of GEL 337 is now 2946 square kilometres approximately.

2. Revocation of GELs 338, 339, 503, 504 and 507 is hereby entered on the public registers.



BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department for Manufacturing, Innovation, Trade, Resources and Energy
Delegate of the Minister for Mineral Resources and Energy

Date: 11 January 2012

Ref: 27/2/505
27/2/506
F2009/000457

Petroleum and Geothermal Energy Act 2000

CONSOLIDATION OF LICENCE AREAS GEOTHERMAL EXPLORATION LICENCES GELs 337, 338, 339, 503, 504 and 507

REVOCATION OF LICENCE GEOTHERMAL EXPLORATION LICENCES GELs 338, 339, 503, 504 and 507

I, BARRY ALAN GOLDSTEIN, Executive Director Energy Resources Division, Department for Manufacturing, Innovation, Trade, Resources and Energy, in the State of South Australia, pursuant to the provisions of the *Petroleum and Geothermal Energy Act 2000* and all other enabling powers, for and on behalf of Tom Koutsantonis, Minister for Mineral Resources and Energy (Minister), pursuant to delegated powers dated 1 October 2009 -

1. Consolidate the adjacent areas of Geothermal Exploration Licences GELs 337, 338, 339, 503, 504 and 507 held by –

Earth Heat Australia Pty Ltd
ACN 126 917 459

The consolidated licence area shall be designated as:

Geothermal Exploration Licence GEL 337

DESCRIPTION OF CONSOLIDATED AREA

All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 32°24'00"S GDA94 and longitude 139°15'00"E GDA94, thence east to longitude 139°30'00"E GDA94, south to latitude 32°35'00"S GDA94, west to longitude 139°23'00"E GDA94, south to latitude 32°41'00"S GDA94, east to longitude 139°26'00"E GDA94, north to latitude 32°40'00"S GDA94, east to longitude 139°30'00"E GDA94, south to latitude 32°49'00"S GDA94, east to longitude 139°31'00"E GDA94, south to latitude 32°59'00"S GDA94, west to longitude 139°21'00"E GDA94, north to latitude 32°58'00"S GDA94, west to longitude 139°13'00"E GDA94, north to latitude 32°56'00"S GDA94, west to longitude 138°57'00"E GDA94, north to latitude 32°38'00"S GDA94, west to longitude 138°49'00"E GDA94, north to latitude 32°30'00"S GDA94, east to longitude 139°12'00"E GDA94, south to latitude 32°35'00"S GDA94, east to longitude 139°14'00"E GDA94, north to latitude 32°27'00"S GDA94, east to longitude 139°15'00"E GDA94, and north to the point of commencement, but excluding the Yalpara Conservation Park

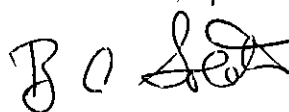
AREA: 2946 square kilometres approximately.

2. Consequently revoke Geothermal Exploration Licences GELs 338, 339, 503, 504 and 507.

As a consequence of the consolidation, the work program forming 'condition 1' of the consolidated GEL 337 comprises:

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Geological and geophysical studies.
Two	<ul style="list-style-type: none">• Geological and geophysical studies; and• Planning for MT survey to be undertaken in year 4
Three	<ul style="list-style-type: none">• Geological and geophysical studies.
Four	<ul style="list-style-type: none">• Geophysical data acquisition (MT-75 station); and• Geological and geophysical studies.
Five	<ul style="list-style-type: none">• 1 Fully cored stratigraphic drill-hole to approximately 500m; and• Geological and geophysical studies.

Dated: 12/1/12




BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department for Manufacturing, Innovation, Trade, Resources and Energy
Delegate of the Minister for Mineral Resources and Energy

The following signature evidences the consent of the licensee to the consolidation of GELs 337, 338, 339, 503, 504 and 507 as set out in this document and made pursuant to Section 82 of the *Petroleum and Geothermal Energy Act 2000*.

Signed for and on behalf of **Earth Heat Australia Pty Ltd** by its authorised representative:

30/12/2011

Date



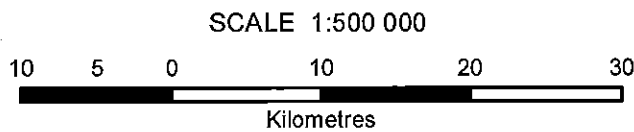
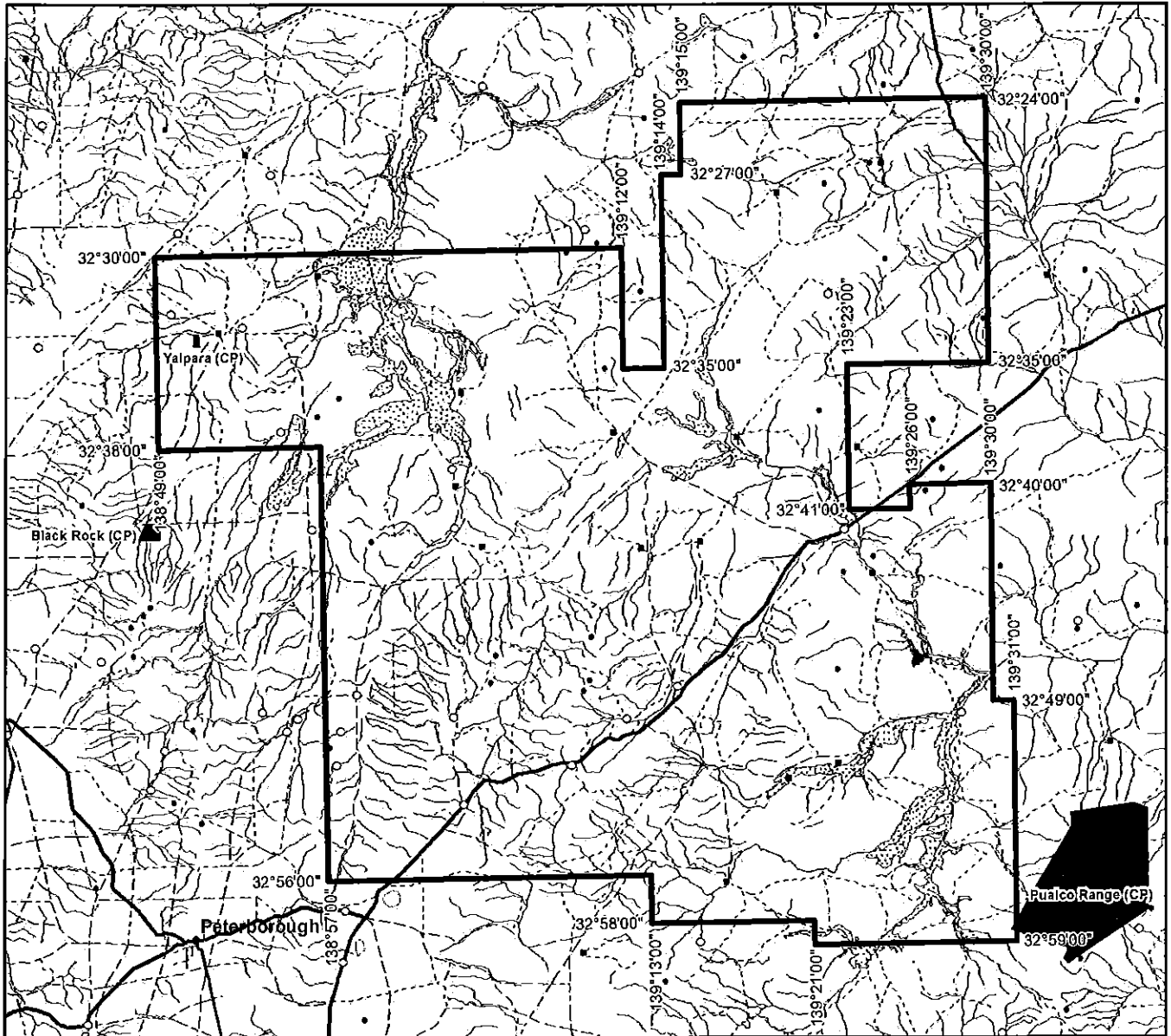
Authorised Representative

TOREL MARSHALL

Name

MANAGING DIRECTOR

Position



Note: There is no warranty that the boundary of this licence is correct in relation to other features of the map. The boundary is to be ascertained by reference to the Geocentric Datum of Australia (GDA94) and the schedule.

THE PLAN HEREINBEFORE REFERRED TO
GEOHERMAL EXPLORATION LICENCE NO: 337



Government of South Australia
 Primary Industries and Resources SA

Inst 04535.doc

SR 27/2/505

AREA: 2946 sq km (approx)

Page 4 of 4

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Suspension of Geothermal Exploration Licences—GELs 337,
338, 339, 503, 504, 505, 506, 507, 523, 524 and 525*

PURSUANT to section 90 of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licences have been suspended under the provisions of the Petroleum and Geothermal Energy Act 2000, from and including 21 July 2010 until 20 July 2011, pursuant to delegated powers dated 1 October 2009.

The expiry date of GELs 337, 338 and 339 is now determined to be 31 August 2015.

The expiry date of GELs 503, 504, 505, 506 and 507 is now determined to be 17 December 2015.

The expiry date of GELs 523, 524 and 525 is now determined to be 3 June 2016.

Dated 27 July 2010.

B. A. GOLDSTEIN,
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral
Resources Development

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 337, 338, 339, 503, 504, 505,
506, 507, 523, 524 and 525

1. Suspension of licences from and including 21 July 2010 to 20 July 2011 is hereby entered on the public register.
2. The expiry date of GELs 337, 338 and 339 is now determined to be 31 August 2015.
3. The expiry date of GELs 503, 504, 505, 506 and 507 is now determined to be 17 December 2015.
4. The expiry date of GELs 523, 524 and 525 is now determined to be 3 June 2016.



BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Date: 27 July 2010

Ref: 27/2/505
27/2/506
F2009/000457
F2010/000142

Petroleum and Geothermal Energy Act 2000
S.90

**SUSPENSION OF
GEOHERMAL EXPLORATION LICENCES
GELs 337, 338, 339, 503, 504, 505,
506, 507, 523, 524 and 525**

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources, in the State of South Australia, pursuant to the provisions of the *Petroleum and Geothermal Energy Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 1 October 2009 hereby -

1. suspend geothermal exploration licences GELs 337, 338, 339, 503, 504, 505, 506, 507, 523, 524 and 525 for the period from and including 21 July 2010 to 20 July 2011.

No regulated activities are permitted to be carried out during the period of the suspension.

- (a) The expiry date of GELs 337, 338 and 339 is now determined to be 31 August 2015.
- (b) The expiry date of GELs 503, 504, 505, 506 and 507 is now determined to be 17 December 2015.
- (c) The expiry date of GELs 523, 524 and 525 is now determined to be 3 June 2016.

Dated: 27 July 2010



BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 337, 338, 339, 503, 504, 505,
506 and 507

1. Notation of change of company name –

From: Earth Heat Limited
To: Earth Heat Australia Pty Ltd

is hereby entered on the public registers.



BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development

Date: 4 June 2010

File: F2009/000457
27/2/505

Cs&As Pty Ltd Attn: Malcolm Lucas-Smith
PO Box 1385
Nowra NSW 2541

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Certificate of Registration on Change of Name and Conversion to a Proprietary Company



This is to certify that

EARTH HEAT LIMITED

Australian Company Number 126 917 459

did on the twenty-third day of March 2010 change its name
and on the twenty-third day of March 2010 converted to a
proprietary company.

The new name of the company is

EARTH HEAT AUSTRALIA PTY LTD

Australian Company Number 126 917 459

The company is limited by shares.

The company is registered under the Corporations Act 2001 and
is taken to be registered in New South Wales and the date
of commencement of registration is the seventh day of August, 2007.

Issued by the
Australian Securities and Investments Commission
on this twenty-third day of March, 2010.

A handwritten signature in black ink, appearing to read 'AMDA'.

Anthony Michael D'Aloisio
Chairman

CERTIFICATE

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

Grant of Geothermal Exploration Licences—GELs 503, 504, 505, 506 and 507

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have been granted with effect from and including 18 December 2009, under the provisions of the Petroleum and Geothermal Energy Act 2000, pursuant to delegated powers dated 1 October 2009.

No. of Licence	Licensee	Locality	Expiry	Reference
GEL 503 GEL 504 GEL 505 GEL 506 GEL 507	Earth Heat Limited	Arrowie Basin, South Australia	17 December 2014	F2009/000457

Description of Area—GEL 503

All that part of the State of South Australia, bounded as follows:

Commencing at a point being the intersection of latitude 32°49'00"S GDA94 and longitude 139°13'00"E GDA94, thence east to longitude 139°31'00"E GDA94, south to latitude 32°59'00"S GDA94, west to longitude 139°21'00"E GDA94, north to latitude 32°58'00"S GDA94, west to longitude 139°13'00"E GDA94 and north to the point of commencement.

Area: 496 km² approximately.

Description of Area—GEL 504

All that part of the State of South Australia, bounded as follows:

Commencing at a point being the intersection of latitude 32°35'00"S GDA94 and longitude 139°06'00"E GDA94, thence east to longitude 139°23'00"E GDA94, south to latitude 32°41'00"S GDA94, west to longitude 139°05'00"E GDA94, south to latitude 32°45'00"S GDA94, west to longitude 138°58'00"E GDA94, south to latitude 32°48'00"S GDA94, west to longitude 138°57'00"E GDA94, north to latitude 32°38'00"S GDA94, east to longitude 139°02'00"E GDA94, north to latitude 32°37'00"S GDA94, east to longitude 139°04'00"E GDA94, north to latitude 32°36'00"S GDA94, east to longitude 139°06'00"E GDA94 and north to the point of commencement.

Area: 491 km² approximately.

Description of Area—GEL 505

All that part of the State of South Australia, bounded as follows:

Commencing at a point being the intersection of latitude 32°06'00"S GDA94 and longitude 138°52'00"E GDA94, thence east to longitude 138°56'00"E GDA94, south to latitude 32°09'00"S GDA94, east to longitude 139°01'00"E GDA94, south to latitude 32°14'00"S GDA94, west to longitude 138°57'00"E GDA94, south to latitude 32°15'00"S GDA94, west to longitude 138°53'00"E GDA94, south to latitude 32°16'00"S GDA94, west to longitude 138°51'00"E GDA94, south to latitude 32°17'00"S GDA94, west to longitude 138°50'00"E GDA94, south to latitude 32°18'00"S GDA94, west to longitude 138°49'00"E GDA94, south to latitude 32°19'00"S GDA94, west to longitude 138°43'00"E GDA94, south to latitude 32°21'00"S GDA94, west to longitude 138°42'00"E GDA94, south to latitude 32°22'00"S GDA94, west to longitude 138°38'00"E GDA94, north to latitude 32°17'00"S GDA94, east to longitude 138°42'00"E GDA94, north to latitude 32°12'00"S GDA94, east to longitude 138°50'00"E GDA94, north to latitude 32°08'00"S GDA94, east to longitude 138°52'00"E GDA94 and north to the point of commencement.

Area: 456 km² approximately.

Description of Area—GEL 506

All that part of the State of South Australia, bounded as follows:

Commencing at a point being the intersection of latitude 31°59'00"S GDA94 and longitude 138°40'00"E GDA94, thence east to longitude 138°48'00"E GDA94, south to latitude 32°00'00"S GDA94, east to longitude 138°49'00"E GDA94, south to latitude 32°06'00"S GDA94, west to longitude 138°48'00"E GDA94, south to latitude 32°09'00"S GDA94, west to longitude 138°47'00"E GDA94, south to latitude 32°10'00"S GDA94, west to longitude 138°46'00"E GDA94, south to latitude 32°12'00"S GDA94, west to longitude 138°42'00"E GDA94, south to latitude 32°16'00"S GDA94, west to longitude 138°34'00"E GDA94, north to latitude 32°11'00"S GDA94, east to longitude 138°37'00"E GDA94, north to latitude 32°09'00"S GDA94, east to longitude 138°39'00"E GDA94, north to latitude 32°02'00"S GDA94, east to longitude 138°40'00"E GDA94 and north to the point of commencement.

Area: 454 square kilometres approximately.

Description of Area—GEL 507

All that part of the State of South Australia, bounded as follows:

Commencing at a point being the intersection of latitude 32°30'00"S GDA94 and longitude 138°49'00"E GDA94, thence east to longitude 139°12'00"E GDA94, south to latitude 32°35'00"S GDA94, west to longitude 139°06'00"E GDA94, south to latitude 32°36'00"S GDA94, west to longitude 139°04'00"E GDA94, south to latitude 32°37'00"S GDA94, west to longitude 139°02'00"E GDA94, south to latitude 32°38'00"S GDA94, west to longitude 138°49'00"E GDA94 and north to the point of commencement, but excluding Yalpara Conservation Park.

Area: 462 km² approximately.

Dated 18 December 2009.

B. A. GOLDSTEIN,
 Director Petroleum and Geothermal
 Minerals and Energy Resources
 Primary Industries and Resources SA
 Delegate of the Minister for Mineral Resources Development


PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

GEOTHERMAL EXPLORATION LICENCE

GEL 503

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Primary Industries and Resources, in the State of South Australia pursuant to the provisions of the *Petroleum and Geothermal Energy Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 1 October 2009, HEREBY GRANT to:

Earth Heat Limited
ACN 126 917 459

(hereinafter referred to as the Licensee) an Exploration Licence in relation to a source of geothermal energy in respect of the area set out below, to have effect for a period of five years to expire on *17 December* 2014 but carrying the right of renewal under the *Petroleum and Geothermal Energy Act 2000*. 

DESCRIPTION OF AREA

The land comprised in this licence is that part of the State of South Australia described in the Schedule hereto:

CONDITIONS

1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. These exploratory operations shall include but not necessarily be limited to:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Geological and geophysical studies. <i>Year 1 work program to be conducted anywhere within the area of GELs 503, 504, 505, 506 and 507</i>
Two	<ul style="list-style-type: none">• Geological and geophysical studies. <i>Year 2 work program to be conducted anywhere within the area of GELs 503, 504, 505, 506 and 507</i>

Three	<ul style="list-style-type: none"> • 150 station MT survey; and • Geological and geophysical studies. <p><i>Year 3 work program to be conducted anywhere within the area of GELs 503, 504, 505, 506 and 507</i></p>
Four	<ul style="list-style-type: none"> • Geological and geophysical studies. <p><i>Year 4 work program to be conducted anywhere within the area of GELs 503, 504, 505, 506 and 507</i></p>
Five	<ul style="list-style-type: none"> • Fully cored stratigraphic drill hole to approximately 500m; • Logging suite (if appropriate) and direct borehole heat measurements; and • Geological and geophysical studies. <p><i>Year 5 work program to be conducted anywhere within the area of GELs 503, 504, 505, 506 and 507</i></p>

2. The Licensee must take all reasonable precautions to minimise the risks of its activities resulting in a significant loss of petroleum reserves or a significant reduction in the recovery of petroleum reserves.
3. The Licensee must:
 - (a) upon commencement of regulated activities under this licence, maintain in force during the term of this licence public liability insurance to cover regulated activities under this licence (including sudden and accidental pollution) in the name of the Licensee for a sum not less than twenty million dollars (\$20,000,000.00) or such greater sum as specified by the Minister and make such amendments to the terms and conditions of the insurance as the Minister may from time to time require;
 - (b) maintain in force during the drilling of any well or operation in any well, control of well insurance in the name of the Licensee for a sum not less than ten million dollars (\$10,000,000.00) or such greater sum as specified by the Minister and make such amendments to the terms and conditions of the insurance as the Minister may from time to time require;
 - (c) upon request by the Minister, provide the Minister with a cover note or certificate of currency of each insurance policy referred to in paragraphs (a) and (b).
4. The Minister in specifying the levels of insurance accepts no liability for the completeness of their listing, the adequacy of the sum insured, the limit of liability, the scoped coverage, the conditions or exclusions of these insurances in respect to how they may or may not respond to any loss, damage or liability.
5. The Licensee will ensure, when preparing an Environmental Impact Report under Part 12 of the *Petroleum and Geothermal Energy Act 2000*, that the report also includes an assessment of the potential economic consequences for other licensees under the *Petroleum and Geothermal Energy Act 2000* or *Mining Act 1971* and owners of land, arising out of proposed regulated activities to be carried out in the licence area.
6. The Licensee must keep confidential any measurements made in a well which would enable the estimation of petroleum reserves ("Confidential Information") and must not disclose the Confidential Information without first obtaining the written consent of the licensee of the overlapping compatible licence, unless:

- (a) it is a disclosure required under the Act, this licence or any other law;
- (b) it is a disclosure which is for the purposes of prosecuting or defending any legal proceedings; or
- (c) it is information which is or becomes public knowledge other than by breach of this licence condition

7 A contract or agreement entered into by the licensee to transfer or accept liability for any well or facility constructed for the purpose of undertaking a regulated activity under the *Petroleum Act 1940* or the *Petroleum and Geothermal Energy Act 2000* cannot transfer, limit or exclude liability under the *Petroleum and Geothermal Energy Act 2000* unless written consent of the Minister is obtained

8 In the event that the Licensee during any year of the term of this licence (a year being the period of twelve calendar months ending on the anniversary of the date upon which the licence comes into force) fails to comply with the work program requirements of this licence, it is an express term of this licence that the Minister then may use discretion to either cancel this licence or authorise such variation to these requirements as the Minister thinks fit.

9 The Licensee shall during periods determined by the Minister, lodge and maintain with the Minister, for the satisfaction of obligations arising under the Act or this licence, a security of \$50,000 (fifty thousand dollars) or such greater sum as specified by the Minister from time to time.

("the Security")

9.1 The Security shall be lodged in the form of either;

- (a) cash; or
- (b) an unconditional, irrevocable bank guarantee or letter of credit in a form, and from a financial institution, approved by the Minister,

9.2 Interest will not be payable by the Minister to the Licensee on any cash Security.

9.3 All charges incurred by the Licensee in obtaining and maintaining the Security, shall be met by the Licensee.

9.4 If upon expiry, this Licence is not renewed and the Minister is satisfied that there are no further obligations under this Licence or the Act, the Minister will return the Security to the Licensee.

Date: 18 December 2009



BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Signed by the said LICENSEE

Date: 7/12/2009



Authorised Representative

TOREY MARSHALL

Name

MANAGING DIRECTOR

Position

EARTH HEAT

Company

GEOTHERMAL EXPLORATION LICENCE

GEL 503

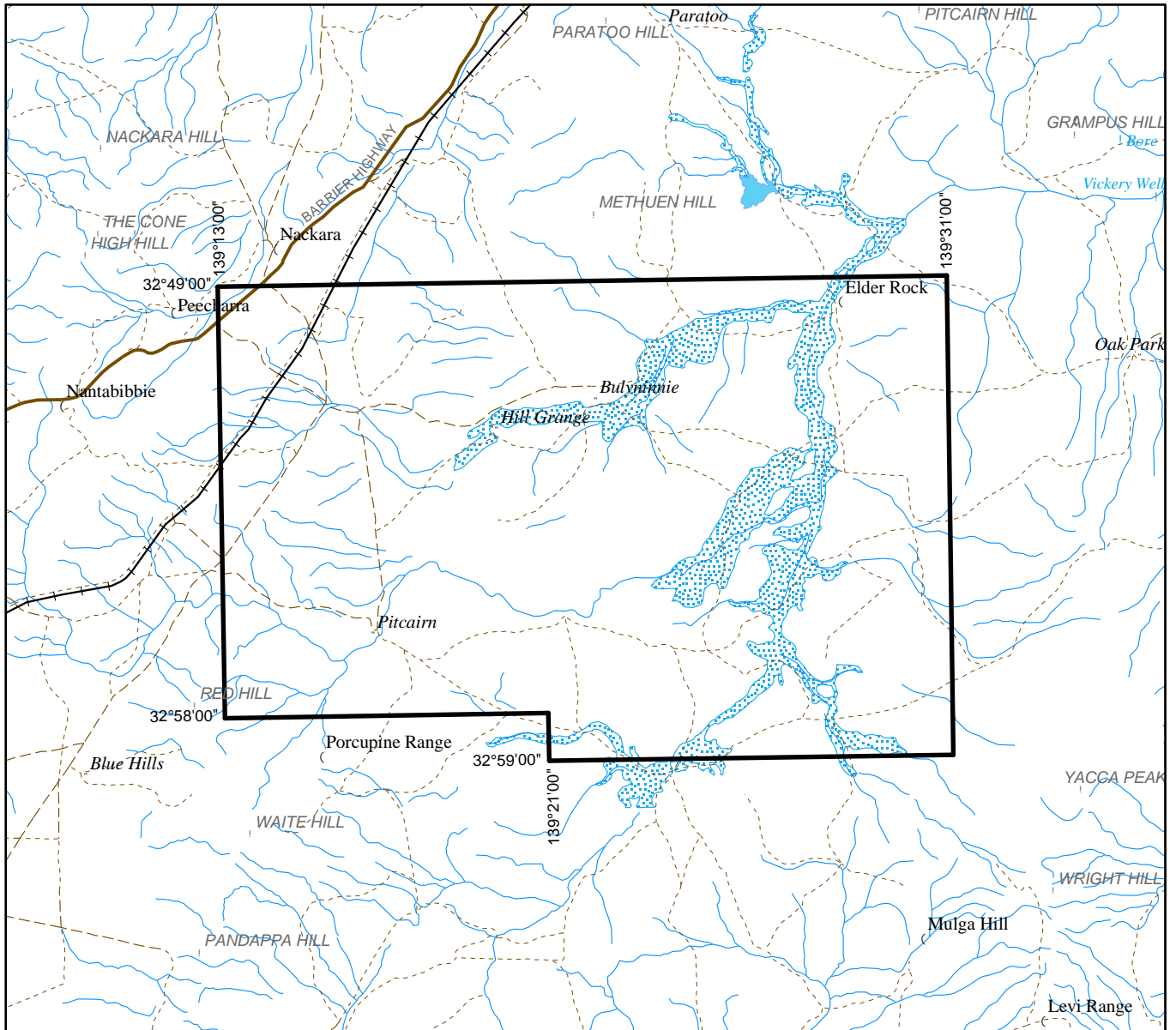
THE SCHEDULE

Description of Area

All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 32°49'00"S GDA94 and longitude 139°13'00"E GDA94, thence east to longitude 139°31'00"E GDA94, south to latitude 32°59'00"S GDA94, west to longitude 139°21'00"E GDA94, north to latitude 32°58'00"S GDA94, west to longitude 139°13'00"E GDA94, and north to the point of commencement.

AREA: **496** square kilometres approximately



SCALE 1:250 000



Note: There is no warranty that the boundary of this licence is correct in relation to other features of the map. The boundary is to be ascertained by reference to the Geocentric Datum of Australia (GDA94) and the schedule.

THE PLAN HEREINBEFORE REFERRED TO

GEOHERMAL EXPLORATION LICENCE NO: 503

