

## INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR GEOTHERMAL EXPLORATION LICENCE GEL 254

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1. 23 November 2006 Memorandum entering GEL 254 on the public register.
2. 23 November 2006 Geothermal Exploration Licence GEL 254  
Interests: MNGI Pty Ltd 100%
3. 23 November 2006 Notation of Receipt of Security
4. 30 November 2006 Gazettal of Grant of GEL 254
5. 28 June 2007 Notation of Paralana Energy Farmin Agreement dated 3 April 2007 between MNGI Pty Ltd and Beach Petroleum Limited is hereby entered on the public register.  
Ref: SA 2007-22
6. 26 March 2008 Variation of Work Program
7. 26 March 2008 Memorandum entering Variation on public register
8. 26 March 2008 Gazettal of Variation
9. 11 September 2008 Notation of Deed of Variation - Paralana Energy Farmin Agreement dated 11 August 2008 between MNGI Pty Ltd and Beach Petroleum Limited is hereby entered on the public register.  
Ref: SA 2008-22
10. 11 September 2008 Notation of Paralana Joint Venture Joint Operating and Production Agreement dated 11 August 2008 between Beach Petroleum Limited, MNGI Pty Ltd and Petratherm Limited is hereby entered on the public register.  
Ref: SA 2008-23
11. 22 January 2009 Notation of Paralana Energy Farmin Agreement dated 15 January 2009 between MNGI Pty Ltd and TRUenergy Geothermal Pty Ltd is hereby entered on the public register.  
Ref: SA 2009-01
12. 22 January 2009 Notation of Paralana Tripartite Agreement dated 19 January 2009 between Beach Petroleum Limited, MNGI Pty Ltd, Petratherm Limited and TRUenergy Geothermal Pty Ltd is hereby entered on the public register.  
Ref: SA 2009-02

13. 23 December 2009 Variation of licence conditions.
14. 23 December 2009 Memorandum entering variation of licence conditions on the public register.
15. 23 December 2009 Suspension of licence for the period from and including 23 November 2009 to 22 November 2010.
- The expiry date of GEL 254 is now 22 November 2012.
16. 23 December 2009 Memorandum entering suspension of licence on the public register.
17. 7 January 2010 Gazettal of suspension of licence.
18. 9 September 2010 Memorandum entering notation of the following registrable dealing on the public register.
- Deed of Variation No. 2 – Paralana Energy Farmin Agreement dated 23 August 2010 between MNGI Pty Ltd and Beach Energy Limited.
- Ref: SA 2010-48
19. 1 November 2010 Memorandum entering notation of the following registrable dealing on the public register.
- Paralana Energy Deed of Assignment date 20 September 2010 between MNGI Pty Ltd and Beach Energy Limited.
- Ref: SA 2010-49
- Interests in the licence are:
- |                      |     |
|----------------------|-----|
| MNGI Pty Ltd         | 79% |
| Beach Energy Limited | 21% |
20. 7 August 2012 Suspension of licence for the period from and including 30 July 2012 to 29 July 2013.
- GEL 254 is now due to expire on 11 November 2013.
21. 7 August 2012 Memorandum entering suspension of licence on the public register.
22. 7 August 2012 Variation of licence conditions.
23. 7 August 2012 Memorandum entering variation of licence conditions on the public register.
24. 16 August 2012 Gazettal of suspension of licence.

25. 5 October 2012 Memorandum entering notation of the following registrable dealing on the public register.
- Paralana Termination Deed dated 31 August 2012 between Beach Energy Ltd, MNGI Pty Limited, Petratherm Limited and TRUenergy Geothermal Pty Limited.
- Ref: SA 2012-52
26. 12 November 2013 Consolidation of licence area with GEL 336.
- The total area of GEL 254 is now 906 km<sup>2</sup> approximately.
27. 12 November 2013 Memorandum entering consolidation of licence area on the public register.
28. 2 January 2014 Renewal of licence
- Expiry date of GEL 254 is now 22 November 2018.
- Interests in the licence are:
- |                      |     |
|----------------------|-----|
| MNGI Pty Ltd         | 79% |
| Beach Energy Limited | 21% |
29. 2 January 2014 Memorandum entering renewal of licence, effective from 23 November 2013 on the public register.
30. 6 January 2015 Surrender of licence with effect from 12 November 2014.
31. 6 January 2015 Memorandum entering surrender of licence on the public register.
32. 8 January 2015 Gazettal of surrender of licence.

## PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Surrender of Geothermal Exploration Licence—GEL 254*

NOTICE is hereby given that I have accepted the surrender of the below-mentioned geothermal exploration licence under the provisions of the Petroleum and Geothermal Energy Act 2000, pursuant to delegated powers dated 21 March 2012.

No. of Licence	Licensee	Date of Surrender	Reference
GEL 254	MNGI Pty Ltd	12 November 2014	27/2/413

Dated 5 January 2015.

B. A. GOLDSTEIN,  
Executive Director,  
Energy Resources Division,  
Department of State Development,  
Delegate of the Minister for Mineral Resources and Energy

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 254**

1. Surrender of Geothermal Exploration Licence GEL 254 with effect from 12 November 2014 is hereby entered on the public register.



**BARRY A. GOLDSTEIN**  
**Executive Director**  
**Energy Resources Division**  
**Department of State Development**  
**Delegate of the Minister for Mineral Resources and Energy**

Date: 5 January 2015

Ref: 27/2/413

***Petroleum and Geothermal Energy Act 2000***

**SURRENDER OF  
GEOTHERMAL EXPLORATION LICENCE  
GEL 254**

I, BARRY ALAN GOLDSTEIN, Executive Director, Energy Resources Division, Department of State Development, in the State of South Australia, pursuant to the provisions of section 89(2) 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 21 March 2012 –

- a) hereby accept the surrender of Geothermal Exploration Licence GEL 254 in the name of MNGI Pty Ltd with effect from 12 November 2014.

Dated: 5 January 2015

A handwritten signature in black ink, appearing to read 'Barry A. Goldstein', with a long horizontal stroke extending to the right.

**BARRY A. GOLDSTEIN  
Executive Director  
Energy Resources Division  
Department of State Development  
Delegate of the Minister for Mineral Resources and Energy**


***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE**  
**GEL 254**

1. Renewal of this licence effective from 23 November 2013 is hereby entered on the public register.
2. Interests in the licence are:

MNGI Pty Ltd	79%
Beach Energy Limited	21%



**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: 2 January 2014

File: 27/02/413

# ***Petroleum and Geothermal Energy Act 2000***

## **FIRST RENEWAL OF GEOTHERMAL EXPLORATION LICENCE GEL 254**

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 21 March 2012, HEREBY GRANT to:

**MNGI Pty Ltd** ACN 091 525 361

**Beach Energy Limited** ACN 007 617 969

(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 from 23 November 2013 and to expire on 22 November 2018 and carrying the right to one further renewal term subject to the provisions of 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 -

<b>Year of Term of Licence</b>	<b>Minimum Work Requirements</b>
One	<ul style="list-style-type: none"><li>• Geological and geophysical studies.</li></ul> <i>(Year 1 work program may be conducted anywhere within the boundaries of GELs 156 and 254 )</i>
Two	<ul style="list-style-type: none"><li>• Geological and geophysical studies.</li></ul> <i>(Year 2 work program may be conducted anywhere within the boundaries of GELs 156 and 254 )</i>
Three	<ul style="list-style-type: none"><li>• Geological and Geophysical Studies.</li></ul>
Four	<ul style="list-style-type: none"><li>• Drill one well; and</li><li>• Geological and Geophysical Studies.</li></ul>
Five	<ul style="list-style-type: none"><li>• Geological and Geophysical Studies.</li></ul>



2. In the event that the Licensee during any year of the term of this licence fails to comply with the work program requirements of this licence, it is an express term of this licence that the Minister may, at his discretion, either cancel this licence or authorise such variation to these requirements as the Minister thinks fit.
3. All regulated activities authorised by this Licence, namely the construction, maintenance and operation of a campsite, a logistics yard and associated access tracks are classified as requiring high level official surveillance, unless the Licensee satisfies the Minister that, in view of the Licensee's demonstrated competence to comply with the requirements of the Act and the conditions of this Licence, the activities should be classified as requiring low level official surveillance.
  - 3.1 The Minister's prior written approval is required for activities requiring high level official surveillance in accordance with the Regulation 19 of the Regulations to the Act.
4. 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"). 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,
  - 4.1 Interest will not be payable by the Minister to the Licensee on any cash Security.
  - 4.2 All charges incurred by the Licensee in obtaining and maintaining the Security shall be met by the Licensee.
  - 4.3 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.
5. 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).
6. 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.

7. 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.
8. 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.
9. 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.
10. 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.

Date: 2 January 2014



.....  
**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**

**Signed by the said LICENSEE**

Date: 18/11/2013



Authorised Representative

Peter Reid

Name

Exploration Manager


Position

Petratherm Limited

Company

**Signed by the said LICENSEE**

Date: 27/11/13



Authorised Representative

NEIL GIBBINS  
Name Chief Operating Officer

Position

BEACH ENERGY LTD.

Company

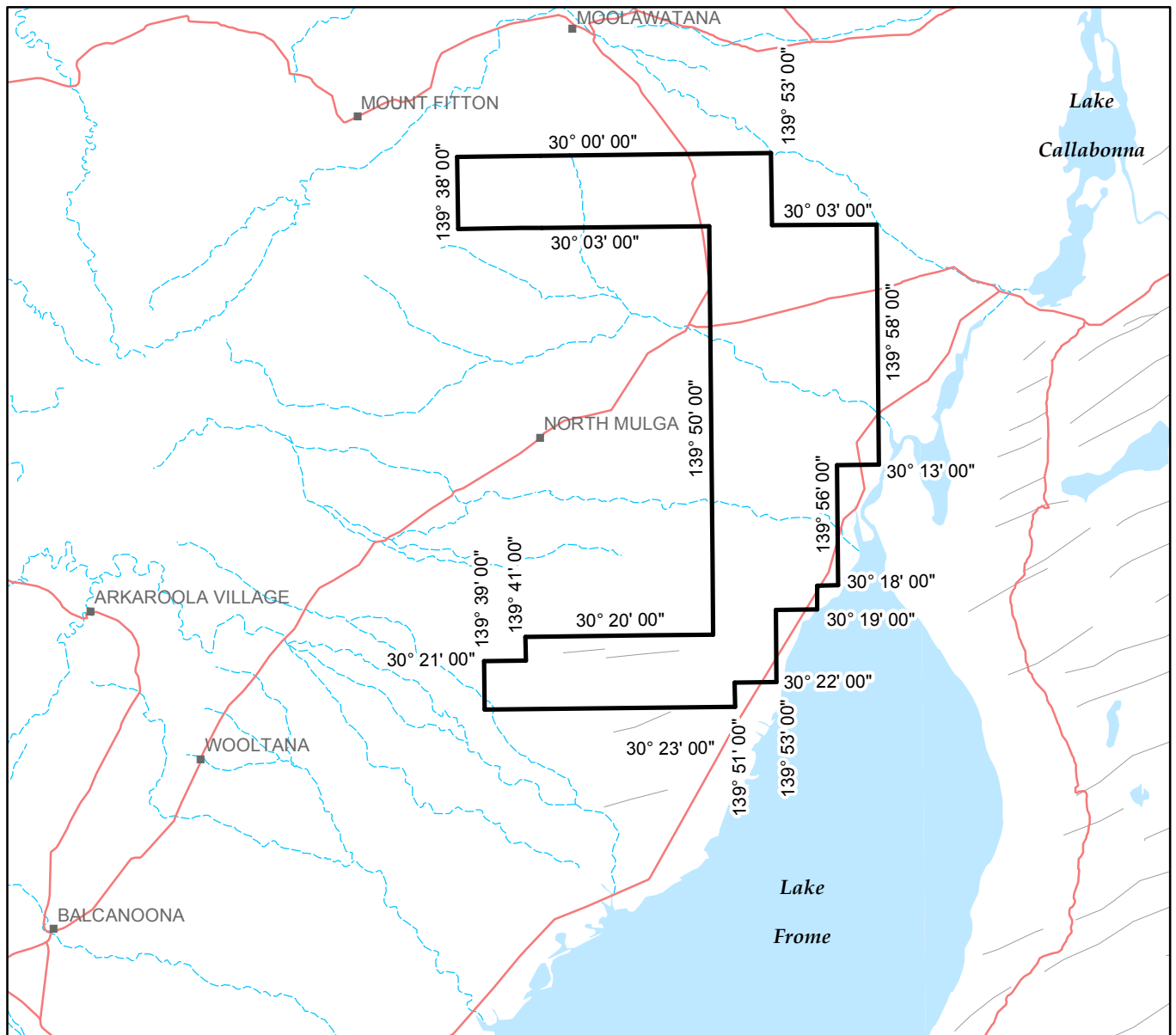
**THE SCHEDULE**  
**GEOHERMAL EXPLORATION LICENCE**  
**GEL 254**

**Description of Area**

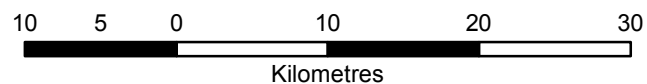
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 30°00'00"S GDA94 and longitude 139°38'00"E GDA94, thence east to longitude 139°53'00"E GDA94, south to latitude 30°03'00"S GDA94, east to longitude 139°58'00"E GDA94, south to latitude 30°13'00"S GDA94, west to longitude 139°56'00"E GDA94, south to latitude 30°18'00"S GDA94, west to longitude 139°55'00"E GDA94, south to latitude 30°19'00"S GDA94, west to longitude 139°53'00"E GDA94, south to latitude 30°22'00"S GDA94, west to longitude 139°51'00"E GDA94, south to latitude 30°23'00"S GDA94, west to longitude 139°39'00"E GDA94, north to latitude 30°21'00"S GDA94, east to longitude 139°41'00"E GDA94, north to latitude 30°20'00"S GDA94, east to longitude 139°50'00"E GDA94, north to latitude 30°03'00"S GDA94, west to longitude 139°38'00"E GDA94, and north to the point of commencement.

AREA: **596** square kilometres approximately.



SCALE 1:500 000



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: 254**

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

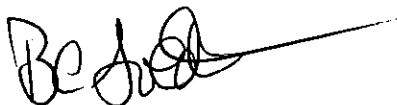
**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 254 and 336**

1. Consolidation of the adjacent licence areas of GELs 254 and 336 whereby the consolidated licence area is now designated as GEL 254 is hereby entered on the public register.

The total area of GEL 254 is now 906 km<sup>2</sup> approximately.

2. Revocation of GEL 336 is hereby entered on the public register.



**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: 12 November 2013

Ref: 27/2/413  
27/2/504

# ***Petroleum and Geothermal Energy Act 2000***

## **CONSOLIDATION OF LICENCE AREAS GEOTHERMAL EXPLORATION LICENCES GELs 254 and 336**

## **REVOCATION OF LICENCE GEOTHERMAL EXPLORATION LICENCE GEL 336**

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 21 March 2012 hereby -

1. Consolidate the adjacent areas of Geothermal Exploration Licences GELs 254 and 336 held by -

**MNGI Pty Ltd**  
ACN 091 525 361  
**Beach Energy Limited**  
ACN 007 617 969

The consolidated licence area shall be designated as:

### **Geothermal Exploration Licence GEL 254**

#### **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 30°00'00"S GDA94 and longitude 139°38'00"E GDA94, thence east to longitude 139°53'00"E GDA94, south to latitude 30°03'00"S GDA94, east to longitude 139°58'00"E GDA94, south to latitude 30°13'00"S GDA94, west to longitude 139°56'00"E GDA94, south to latitude 30°18'00"S GDA94, west to longitude 139°55'00"E GDA94, south to latitude 30°19'00"S GDA94, west to longitude 139°53'00"E GDA94, south to latitude 30°22'00"S GDA94, west to longitude 139°51'00"E GDA94, south to latitude 30°24'00"S GDA94, west to longitude 139°45'00"E GDA94, south to latitude 30°28'00"S GDA94, west to longitude 139°37'00"E GDA94, south to latitude 30°35'00"S GDA94, west to the northern boundary of the Gammon Ranges National Park, thence generally north westerly along the boundary of the said National Park to longitude 139°21'00"E GDA94, north to latitude 30°30'00"S GDA94, east to longitude 139°22'00"E GDA94, north to latitude 30°29'00"S GDA94, east to longitude 139°24'00"E GDA94, south to latitude 30°31'00"S GDA94, east to longitude 139°35'00"E GDA94, north to latitude 30°28'00"S GDA94, east to longitude 139°36'00"E GDA94, north to latitude 30°26'00"S GDA94, east to longitude 139°37'00"E GDA94, north to latitude 30°25'00"S GDA94, east to longitude 139°38'00"E GDA94, north to latitude 30°23'00"S GDA94, east to longitude 139°39'00"E GDA94,

north to latitude 30°21'00"S GDA94, east to longitude 139°41'00"E GDA94,  
north to latitude 30°20'00"S GDA94, east to longitude 139°50'00"E GDA94,  
north to latitude 30°03'00"S GDA94, west to longitude 139°38'00"E GDA94,  
and north to the point of commencement.

AREA: **906** square kilometres approximately.

**2. Consequently revoke Geothermal Exploration Licence GEL 336**

As a consequence of the consolidation, the year 5 work program forming 'condition 1' of the consolidated GEL 254 comprises:

Year of Term of Licence	Minimum Work Requirements
Five	<ul style="list-style-type: none"><li>• Geological and geophysical studies.</li></ul> <i>(Year 5 work program may be conducted anywhere within the boundaries of GELs 156 and 254).</i>

Dated: *12 November 2013*



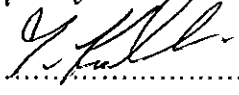
**BARRY A. GOLDSTEIN**  
**Executive Director**  
**Energy Resources Division**  
**Department for Manufacturing, Innovation, Trade, Resources and Energy**  
**Delegate of the Minister for Mineral Resources and Energy**



The following signature evidences the consent of the licensee to the consolidation of GELs 254 and 336 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 **MNGI Pty Ltd** by its authorised representative:

..... 28/10/2013 .....  
Date

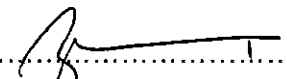
.....  .....  
Authorised Representative

..... TERRY KAULS .....  
Name

..... MANAGING DIRECTOR .....  
Position

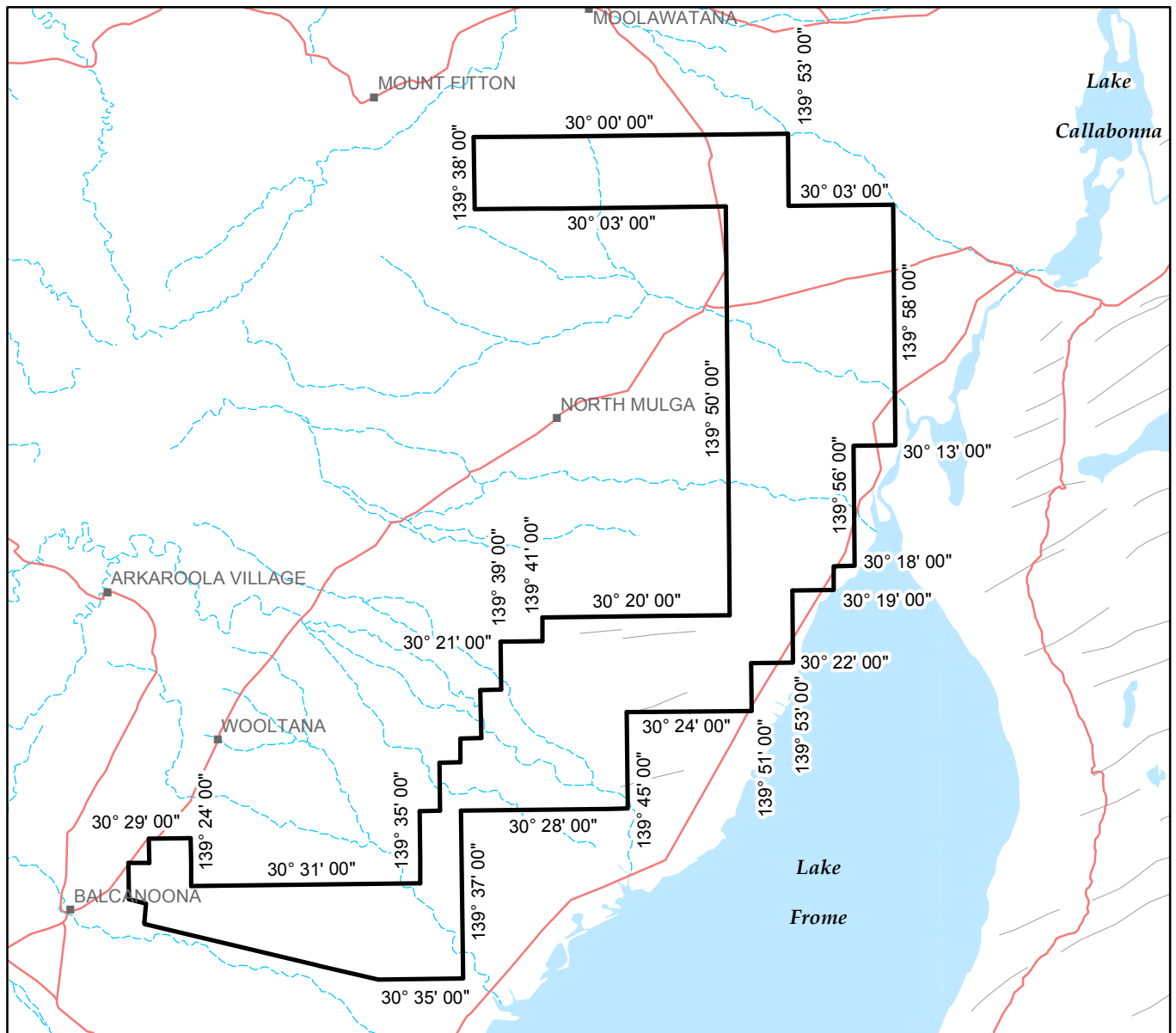
Signed for and on behalf of **Beach Energy Limited** by its authorised representative:

..... 31/10/13 .....  
Date

.....  .....  
Authorised Representative

.....  
Name **NEIL GIBBINS**  
**Chief Operating Officer**

.....  
Position



THE PLAN HEREINBEFORE REFERRED TO

**GEOHERMAL EXPLORATION LICENCE NO: 254**

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 156, 254 and 336**

SA 2012-52      Notation of registrable dealing as evidenced by Paralana Termination Deed dated 31 August 2012 between Beach Energy Limited, MNGI Pty Limited, Petrathern Limited and TRUenergy Geothermal Pty Limited is hereby entered on the public register.



**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: 5 October 2012

Ref: 27/2/261  
27/2/413  
27/2/504

## PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Suspension of Geothermal Exploration Licences—  
GELs 156, 254 and 336*

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 for the period from and including 30 July 2012 until 29 July 2013, under the provisions of the Petroleum and Geothermal Energy Act 2000, pursuant to delegated powers dated 21 March 2012.

The expiry date of GEL 156 is now determined to be 11 November 2015.

The expiry date of GELs 254 and 336 is now determined to be 11 November 2013.

Dated 7 August 2012.

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

## PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Suspension of Petroleum Exploration Licence—PEL 138*

PURSUANT to Section 90 of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that the abovementioned Petroleum Exploration Licence has been suspended for the period from and including 24 August 2012 until 23 August 2013, under the provisions of the Petroleum and Geothermal Energy Act 2000, pursuant to delegated powers dated 21 March 2012.

The expiry date of PEL 138 is now determined to be 15 April 2017.

Note: This notice supersedes the PEL 138 suspension notice dated 27 July 2012 and published in the *South Australian Government Gazette* on 2 August 2012.

Dated 9 August 2012.

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

## ROADS (OPENING AND CLOSING) ACT 1991

*Section 37*

NOTICE is hereby given pursuant to Section 37 (1) of the Roads (Opening and Closing) Act 1991, that:

WHEREAS it is considered that JOSEPH THEODOR BOTTROFF of Caurnamont Farmer was entitled to a Certificate of Title over the closed road 'B' in Road Plan No. 272 in exchange for portion of Section 107, Hundred of Ridley, opened as road and being the whole of the land numbered '1' in Road Plan No. 272, deposited in the Office of the Surveyor-General at Adelaide *vide* notice of confirmation of road order published in the *Government Gazette* of 25 October 1888, at page 1054;

AND whereas no Certificate of Title was issued in respect of the said closed road and the said JOSEPH THEODOR BOTTROFF is believed to be dead or unknown;

AND whereas application is made by WERINA NOMINEES PTY LTD of Private Bag 47, Mannum, S.A. 5238 for the issue of a Certificate of Title over the said closed road by virtue of possession;

AND whereas I am satisfied that the applicant is in possession of the said closed road and that there is apparently no other known person entitled to possession thereof;

TAKE NOTICE that unless objection by any person claiming any interest in the said land is made in writing to me within 28 days from the date of this notice, I propose to issue a Certificate of Title for the said land to the said applicant.

Objections should be addressed to the Surveyor-General, Department of Planning, Transport and Infrastructure, G.P.O. Box 1354, Adelaide, S.A. 5001.

Dated 16 August 2012.

P. M. KENTISH, Surveyor-General

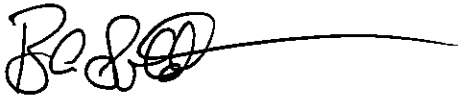
DPTI 12/0033

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 156, 254 and 336**

1. Variation of licence conditions is hereby entered on the public register.



**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: 7 August 2012

Ref: 27/2/261  
27/2/413  
27/2/504

# ***Petroleum and Geothermal Energy Act 2000***

## **VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 254**

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 21 March 2012 vary the conditions of the above-mentioned licences, held by -

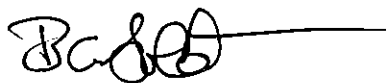
**MNGI Pty Ltd**  
ACN 091 525 361

Condition 1 of each licence is omitted and the following substituted:

" 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 Years one to three 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:-

<b>Year of Term of Licence</b>	<b>Minimum Work Requirements</b>
<b>One</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies.</li></ul>
<b>Two and Three</b>	<ul style="list-style-type: none"><li>• Complete injection well design; and</li><li>• Drill 1<sup>st</sup> injection well.</li></ul> <p><i>Year 2 and 3 work program may be conducted anywhere within the boundaries of GELs 156, 254 and 336.</i></p>
<b>Four</b>	<ul style="list-style-type: none"><li>• Geological and geophysical modelling; and</li><li>• Thermal modelling.</li></ul>
<b>Five</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies.</li></ul> <p><i>(Year 5 work program may be conducted anywhere within the boundaries of GELs 156, 254 and 336).</i></p>

Dated: 7 August 2012



**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**

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 156, 254 and 336**

1. Suspension of licences is hereby entered on the public register.



**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: 7 August 2012

Ref: 27/2/261  
27/2/413  
27/2/504

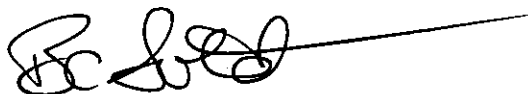
***Petroleum and Geothermal Energy Act 2000***  
**S.90**

**SUSPENSION OF  
GEOTHERMAL EXPLORATION LICENCES  
GELs 156, 254 and 336**

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 21 March 2012 hereby -

- (a) suspend geothermal exploration licences GELs 156, 254 and 336 for the period from and including 30 July 2012 to 29 July 2013.
- 1. No regulated activities are permitted to be carried out during the period of the suspension.
- 2. The expiry date of GEL 156 is now determined to be 22 November 2015.
- 3. The expiry date of GELs 254 and 336 is now determined to be 22 November 2013.

Dated: 7 August 2012



**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**



***Petroleum and Geothermal Energy Act 2000***  
**S.115**

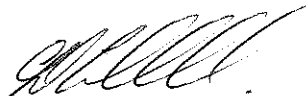
**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 156 and 254**

SA 2010-49      Notation of registrable dealing as evidenced by Paralana Energy Deed of Assignment dated 20 September 2010 between MNGI Pty Ltd and Beach Energy Limited is hereby entered on the public register.

Interests in these licences are:

MNGI Pty Ltd	79%
Beach Energy Limited	21%



**C. D. COCKSHELL**  
**A/Director Petroleum and Geothermal**  
**Minerals and Energy Resources**  
**Primary Industries and Resources SA**  
**Delegate of the Minister for Mineral Resources**  
**Development**

Date: 1 November 2010

Ref: 27/2/261  
27/2/413

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 156, 254 and 336**

SA 2010-48      Notation of registrable dealing as evidenced by Deed of Variation No. 2 – Paralana Energy Farmin Agreement dated 23 August 2010 between MNGI Pty Ltd and Beach Energy Limited is hereby entered on the public register.



**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: 9 September 2010

Ref: 27/2/261  
27/2/413  
27/2/504

## PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Statement of Environmental Objectives for Existing Regulated Activities*

PURSUANT to section 104 (1) of the Petroleum and Geothermal Energy Act 2000 (the Act) I, Josef Zabrowarny, Acting Director Petroleum and Geothermal, Minerals and Energy Resources Division, Department of Primary Industries and Resources SA, Delegate of the Minister for Mineral Resources Development, pursuant to Delegation dated 1 October 2009, *Gazetted* 1 October 2009, do hereby publish the following document as having been approved as a statement of environmental objectives under the Act.

*Document*

Berri—Mildura Natural Gas Transmission Pipeline (Pipeline Licence 11) Statement of Environmental Objectives, December 2009

This document is available for public inspection on the Environmental Register section of the Petroleum and Geothermal Group's website ([www.pir.sa.gov.au/petrol/envreg](http://www.pir.sa.gov.au/petrol/envreg)) or at the Public Office determined pursuant to section 107 (1) of the Act to be at:

Office of Minerals and Energy Resources  
Customer Services  
Level 7, 101 Grenfell Street  
Adelaide, S.A. 5000

Dated 4 January 2010.

J. ZABROWARNY,  
Acting Director Petroleum and Geothermal  
Delegate of the Minister for Mineral  
Resources Development

## PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Suspension of Licence Condition  
Extension of Licence Term**Petroleum Exploration Licence PEL 138 and PEL 499*

PURSUANT to section 76A of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that Condition 1 of the abovementioned Petroleum Exploration Licences has been suspended under the provisions of the Petroleum and Geothermal Energy Act 2000, pursuant to delegated powers dated 1 October 2009, for the periods as follows:

PEL 138—from 16 July 2010 until 15 April 2011 inclusive; and

PEL 499—from 13 April 2010 until 12 January 2011 inclusive.

The term of PEL 138 and PEL 499 have been extended by a period corresponding to the period of suspension, such that the licences will now expire on 15 April 2015 in the case of PEL 138 and 23 January 2013 in the case of PEL 499.

Dated 24 December 2009.

C. D. COCKSHELL,  
Acting 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

*Suspension of Geothermal Exploration Licence—GEL 254*

PURSUANT to section 90 of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licence has been suspended under the provisions of the Petroleum and Geothermal Energy Act 2000, for the period from 23 November 2009 until 22 November 2010 inclusive, pursuant to delegated powers dated 1 October 2009.

The expiry date of GEL 254 is now determined to be 22 November 2012.

Dated 23 December 2009.

C. D. COCKSHELL,  
Acting Director Petroleum and  
Geothermal  
Minerals and Energy Resources  
Primary Industries and Resources SA  
Delegate of the Minister for Mineral  
Resources Development

## RADIATION PROTECTION AND CONTROL ACT 1982

## SECTION 44

*Notice by Delegate of the Minister for Environment and Conservation*

PURSUANT to section 44 of the Radiation Protection and Control Act 1982, I, Keith Baldry, Director of the Radiation Protection Division of the Environment Protection Authority, being a person to whom the powers of the Minister under that section have been delegated under the Act, exempt diagnostic radiographers from the requirements of Regulation 40 of the Radiation Protection and Control (Ionising Radiation) Regulations 2000, subject to the following conditions:

1. This exemption only applies to the exposure of a person to ionising radiation for the purposes of plain radiography where the exposure has been directed by Lindsey Elizabeth Gardner while engaged in the capacity of Physician Assistant at The Queen Elizabeth Hospital, and

2. The direction referred to in condition 1 must comply with the following requirements:

- (1) it must be in writing;
- (2) it must contain details of the examination or treatment being undertaken;
- (3) it must contain the clinical indications for the examination or treatment;
- (4) it must contain a statement by Lindsey Elizabeth Gardner that she has due authority to give the direction;
- (5) it must be signed by Lindsey Elizabeth Gardner; and
- (6) it must be signed by the radiographer who is performing the examination or treatment.

3. Lindsey Elizabeth Gardner must, when directed to do so by the Radiation Protection Division, provide the Radiation Protection Division with a written report on diagnostic radiography authorised by her during a period specified by the Radiation Protection Division. The report must contain statistics of diagnostic radiography authorised and details of any radiation safety issues associated with the examinations during the specified period.

4. The exemption shall take effect commencing on the date of publication of this Notice in the *Government Gazette*.

Dated 5 January 2010.

K. BALDRY, Delegate of the Minister for  
Environment and Conservation

## TRADE STANDARDS ACT 1979

*Declaration of Dangerous Goods*

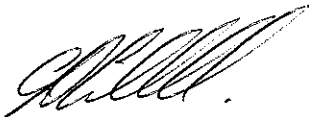
I, GAIL GAGO, Minister for Consumer Affairs, pursuant to section 25 (1) (a) of the Trade Standards Act 1979, declare all goods of the class specified in the Schedule below to be dangerous goods. Further, pursuant to section 25 (2) (a) and 25 (2) (b) of the Trade Standards Act 1979, I am satisfied that this declaration is necessary in order to avert risk of injury or impairment of health and that it is not appropriate in the circumstances to deal with the matter by the prescription of safety standards.

***Petroleum and Geothermal Energy Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 254**

1. Suspension of geothermal exploration licence GEL 254 for the period from and including 23 November 2009 to 22 November 2010 is hereby entered on the public register.
2. The expiry date of GEL 254 is now determined to be 22 November 2012.



**C.D. COCKSHELL**  
**A/Director Petroleum and Geothermal**  
**Minerals and Energy Resources**  
**Primary Industries and Resources SA**  
**Delegate of the Minister for Mineral Resources Development**

Date: 23 December 2009

Ref: 27/2/413

***Petroleum and Geothermal Energy Act 2000***  
**S.90**

**SUSPENSION OF  
GEOTHERMAL EXPLORATION LICENCE  
GEL 254**

I, CYRIL DAVID COCKSHELL, Acting 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 –

- (a) Suspend geothermal exploration licence GEL 254 for the period from and including 23 November 2009 until 22 November 2010.
- 1. No regulated activities are permitted to be carried out during the period of suspension.
- 2. The expiry date of GEL 254 is now determined to be 22 November 2012.

Dated: 23 December 2009



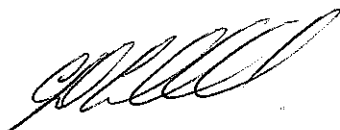
**C.D. COCKSHELL  
A/Director Petroleum and Geothermal  
Minerals and Energy Resources  
Primary Industries and Resources SA  
Delegate of the Minister for Mineral Resources Development**

**Petroleum and Geothermal Energy Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES  
GELs 156, 178, 180, 254 AND 336**

1. Variation of licence conditions is hereby entered on the public register.



**C.D. COCKSHELL  
A/Director Petroleum and Geothermal  
Minerals and Energy Resources  
Primary Industries and Resources SA  
Delegate of the Minister for Mineral Resources Development**

Date: 23 December 2009

Ref: 27/2/261  
27/2/302  
27/2/305  
27/2/413  
27/2/504

# Petroleum and Geothermal Energy Act 2000

## VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 254

I, CYRIL DAVID COCKSHELL, Acting Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 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, vary the conditions of geothermal exploration licence GEL 254 held by -

**MNGI Pty Ltd**  
ACN 091 525 361

Condition 1 of the licence is omitted and the following substituted:

- “ 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. Years one to three exploratory operations are guaranteed. 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"><li>• Geological and Geophysical Review</li></ul>
Two and Three	<ul style="list-style-type: none"><li>• Complete injection well design; and</li><li>• Drill 1<sup>st</sup> injection well.</li></ul> <p><i>Year 2 and 3 work program may be conducted anywhere within the boundaries of GELs 156, 178, 180, 254 and 336.</i></p>
Four	<ul style="list-style-type: none"><li>• Geological and geophysical modelling; and</li><li>• Thermal modelling</li></ul>
Five	<ul style="list-style-type: none"><li>• Geothermal resource estimate; and</li><li>• Resource development plan</li></ul>

Dated: 23 December 2009



C.D. COCKSHELL  
A/Director Petroleum and Geothermal  
Minerals and Energy Resources  
Primary Industries and Resources SA  
Delegate of the Minister for Mineral Resources Development

***Petroleum Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GEL 156; GEL 178; GEL 180; GEL 254; GEL 336**

- SA 2009-01      Notation of registrable dealing as evidenced by Paralana Energy Farmin Agreement dated 15 January 2009 between MNGI Pty Ltd and TRUenergy Geothermal Pty Ltd, is hereby entered on the public register.
- SA 2009-02      Notation of registrable dealing as evidenced by Paralana Tripartite Agreement dated 19 January 2009 between Beach Petroleum Limited, MNGI Pty Ltd, Petrathern Limited and TRUenergy Geothermal Pty Ltd, is hereby entered on the public register.



**MICHAEL MALAVAZOS**  
**Acting Director Petroleum and Geothermal**  
**Minerals and Energy Resources**  
**Primary Industries and Resources SA**  
**Delegate of the Minister for Mineral Resources**  
**Development**

Date: 22 January 2009

27/2/261  
27/2/301  
27/2/305  
27/2/413  
27/2/504

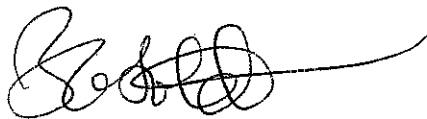


***Petroleum Act 2000***  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GEL 156; GEL 178; GEL 180; GEL 254; GEL 336**

- SA 2008-22      Notation of registrable dealing as evidenced by Deed of Variation - Paralana Energy Farming Agreement dated 11 August 2008 between MNGI Pty Ltd and Beach Petroleum Limited is hereby entered on the public register.
- SA 2008-23      Notation of registrable dealing as evidenced by Paralana Joint Venture Joint Operating and Production Agreement dated 11 August 2008 between Beach Petroleum Limited, MNGI Pty Ltd and Petrathem Limited is hereby entered on the public register.



**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: 11 September 2008

27/2/261  
27/2/301  
27/2/305  
27/2/413  
27/2/504

## PETROLEUM ACT 2000

## SECTION 25 (5) (b)

*Variation of Petroleum Exploration Licence—GEL 254*

NOTICE is hereby given that under the provisions of the Petroleum Act 2000, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573, the conditions of the abovementioned Exploration Licence has been varied as follows:

Condition 1 of each licence is omitted and the following substituted:

‘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. Years one to three 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	Geological and Geophysical Review.
Two and Three	Injection well design completed. Drill 1st injection well. Down hole thermal analysis. Down hole stress analysis. Reservoir development and modelling. Drill 1st production well (3.5 km). Circulation Testing. Commercial feasibility and development study. Commercial negotiation for further funding. Drill 2nd production well to complete triplet (3.5 km). Reservoir stimulation. Circulation testing. Commercial feasibility and development study. (The year two and three work program may be conducted anywhere within the boundaries of GELs 156, 178, 180, 254 and 336).
Four	Geological and geophysical modelling. Thermal modelling.
Five	Geothermal resource estimate. Resource development plan.

Dated 26 March 2008.

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 Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GELs 156, 178, 180, 254 & 336**

1. Variation of licence conditions is hereby entered on the public register.



**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: 26 March 2008

Ref: 27/2/261  
27/2/302  
27/2/305  
27/2/413  
27/2/504

# Petroleum Act 2000

## VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 254

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 section 25 of the *Petroleum 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 28 March 2002, Gazetted 11 April 2002, page 1573 vary the conditions of geothermal exploration licences GEL 254 held by -

MNGI Pty Ltd

Condition 1 of the licence is omitted and the following substituted:

- “ 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 to three 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"><li>• Geological and Geophysical Review</li></ul>
Two And Three	<ul style="list-style-type: none"><li>• Injection well design completed</li><li>• Drill 1<sup>st</sup> injection well</li><li>• Down hole thermal analysis</li><li>• Down hole stress analysis</li><li>• Reservoir development and modelling</li><li>• Drill 1<sup>st</sup> production well (3.5 km)</li><li>• Circulation Testing</li><li>• Commercial feasibility and development study</li><li>• Commercial negotiation for further funding</li><li>• Drill 2<sup>nd</sup> production well to complete triplet (3.5 km)</li><li>• Reservoir stimulation</li><li>• Circulation testing</li><li>• Commercial feasibility and development study</li></ul> <p>(The year two and three work program may be conducted anywhere within the boundaries of GELs 156, 178, 180, 254 and 336).</p>
Four	<ul style="list-style-type: none"><li>• Geological and geophysical modelling</li><li>• Thermal modelling</li></ul>
Five	<ul style="list-style-type: none"><li>• Geothermal resource estimate</li><li>• Resource development plan</li></ul>

Dated: 26 March 2008

A handwritten signature in black ink, appearing to read 'B. Goldstein', with a long horizontal stroke extending to the right.

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

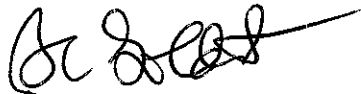
**Petroleum Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES  
GEL 156; GEL 178; GEL 180; GEL 254**

SA 2007-22

Notation of registrable dealing as evidenced by Paralana Energy Farming Agreement dated 3 April 2007 between MNGI Pty Ltd and Beach Petroleum Limited is hereby entered on the public register.



**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: 28 June 2007

27/2/261  
27/2/301  
27/2/305  
27/2/413

## PETROLEUM ACT 2000

*Grant of Geothermal Exploration Licence—GEL 254*

NOTICE is hereby given that the undermentioned Geothermal Exploration Licence has been granted under the provisions of the Petroleum Act 2000, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

No. of Licence	Licensee	Locality	Expiry
GEL 254	MGNI Pty Ltd	Arrowie Basin	22 November 2011

*Description of Area*

All that part of the State of South Australia, bounded as follows: Commencing at a point being the intersection of latitude 30°00'00"S GDA94 and longitude 139°42'00"E GDA94, thence east to longitude 139°53'00"E GDA94, south to latitude 30°22'00"S GDA94, west to longitude 139°51'00"E GDA94, south to latitude 30°24'00"S GDA94, west to longitude 139°45'00"E GDA94, south to latitude 30°28'00"S GDA94, west to longitude 139°36'00"E GDA94, north to latitude 30°26'00"S GDA94, east to longitude 139°37'00"E GDA94, north to latitude 30°25'00"S GDA94, east to longitude 139°38'00"E GDA94, north to latitude 30°23'00"S GDA94, east to longitude 139°39'00"E GDA94, north to latitude 30°21'00"S GDA94, east to longitude 139°41'00"E GDA94, north to latitude 30°20'00"S GDA94, east to longitude 139°50'00"E GDA94, north to latitude 30°03'00"S GDA94, west to longitude 139°42'00"E GDA94, and north to the point of commencement.

Area: 498 km<sup>2</sup> approximately.

Dated 23 November 2006.

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 Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 254**

1. These Licences granted on 23 November 2006 are hereby entered on the public register.
2. Interests in the licence are:-

MNGI Pty Ltd	100%
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3. Notation of receipt of security in the form of a Bank Guarantee dated 25 January 2005 is hereby entered on the public register.



**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: 23 November 2006

Ref: 27/2/413



# **PETROLEUM ACT 2000**

## **GEOHERMAL EXPLORATION LICENCE**

### **GEL 254**

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 Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegation dated 28 March 2002, (refer Government Gazette dated 11 April 2002 page 1573), HEREBY GRANT to:

**MNGI Pty Ltd** ACN 091 525 361

(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 from 23 November 2006 and to expire on 22 November 2011 but carrying the right of renewal under the *Petroleum 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:-


<b>Year of Term of Licence</b>	<b>Minimum Work Requirements</b>
<b>One</b>	<ul style="list-style-type: none"><li>• Injection well design completed</li><li>• Drill 1<sup>st</sup> injection well</li><li>• Down hole thermal analysis</li><li>• Down hole stress analysis</li></ul> <p>(The year one work program may be conducted anywhere within the boundaries of GELs 156, 178, 180 and 254)</p>
<b>Two</b>	<ul style="list-style-type: none"><li>• Reservoir development</li><li>• Reservoir modelling</li><li>• Drill 1<sup>st</sup> production well (3.5 km)</li><li>• Circulation Testing</li><li>• Commercial feasibility and development study</li><li>• Commercial negotiations for further funding</li></ul> <p>(The year two work program may be conducted anywhere within the boundaries of GELs 156, 178, 180 and 254)</p>

<b>Three</b>	<ul style="list-style-type: none"> <li>• Drill 2<sup>nd</sup> production well to complete triplet (3.5 km)</li> <li>• Reservoir stimulation</li> <li>• Circulation Testing</li> <li>• Commercial feasibility and development study</li> </ul> <p>(The year three work program may be conducted anywhere within the boundaries of GELs 156, 178, 180 and 254)</p>
<b>Four</b>	<ul style="list-style-type: none"> <li>• Geological and geophysical modelling</li> <li>• Thermal modelling</li> </ul>
<b>Five</b>	<ul style="list-style-type: none"> <li>• Geothermal resource estimate</li> <li>• Resource development plan</li> </ul>

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 Act 2000*, that the report also includes an assessment of the potential economic consequences for other licensees under the *Petroleum 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 *2000* cannot transfer, limit or exclude liability under the *Petroleum 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: 23 March 2006

  
.....  
**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

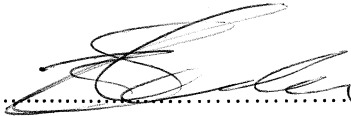
Date: 22/11 2006

  
.....  
Authorised Representative

Peter Reid  
.....  
Name

Operations Manager  
.....  
Position

Petratherm Ltd  
.....  
Company

  
.....  
Witness

Betina Bendall  
.....  
Name

Senior Geologist  
.....  
Position

Petratherm Ltd  
.....  
Company

# GEOTHERMAL EXPLORATION LICENCE

## GEL 254

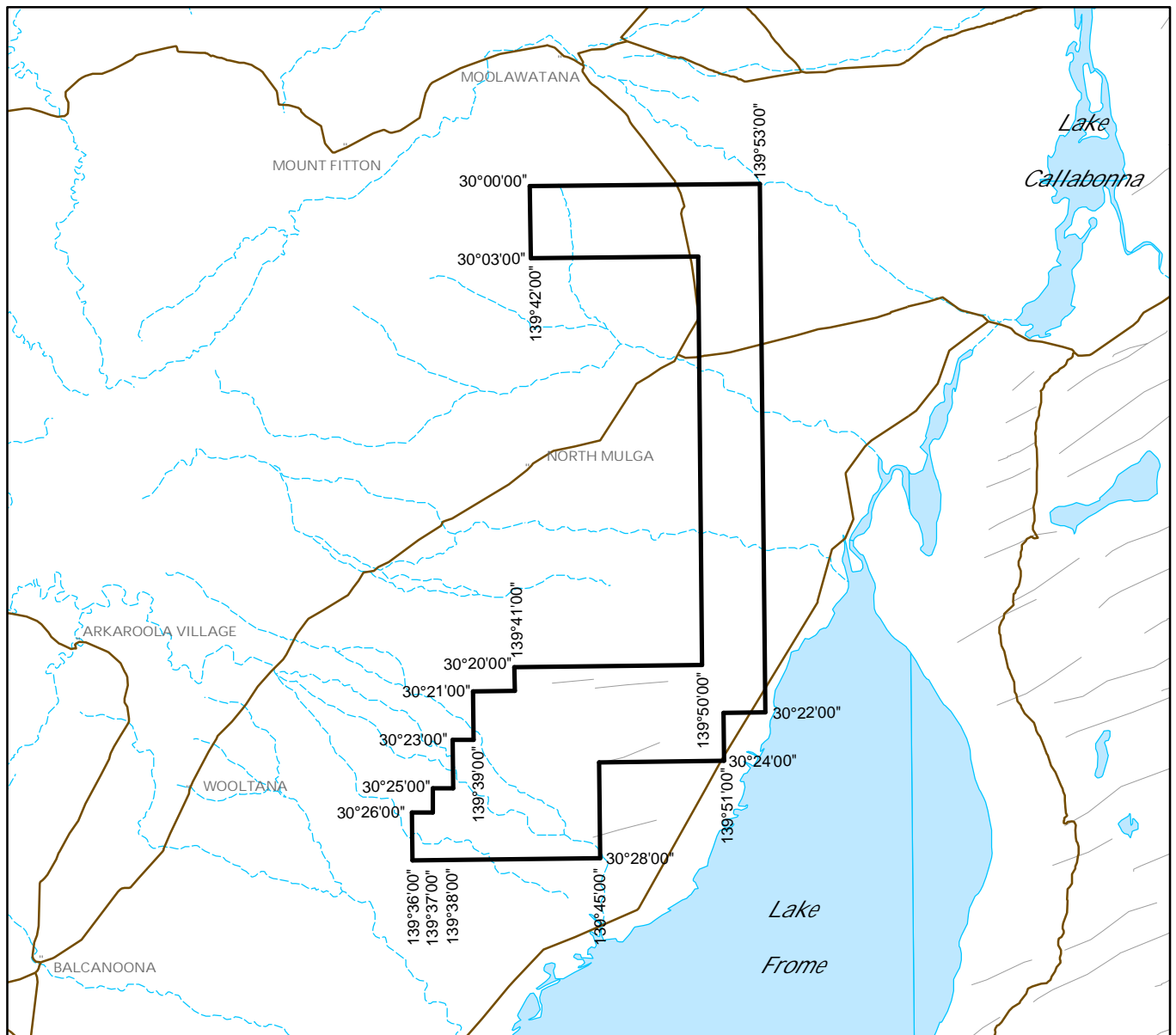
### THE SCHEDULE

#### Description of Area

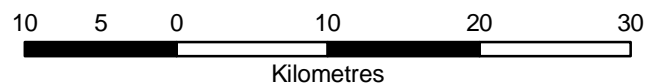
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 30°00'00"S GDA94 and longitude 139°42'00"E GDA94, thence east to longitude 139°53'00"E GDA94, south to latitude 30°22'00"S GDA94, west to longitude 139°51'00"E GDA94, south to latitude 30°24'00"S GDA94, west to longitude 139°45'00"E GDA94, south to latitude 30°28'00"S GDA94, west to longitude 139°36'00"E GDA94, north to latitude 30°26'00"S GDA94, east to longitude 139°37'00"E GDA94, north to latitude 30°25'00"S GDA94, east to longitude 139°38'00"E GDA94, north to latitude 30°23'00"S GDA94, east to longitude 139°39'00"E GDA94, north to latitude 30°21'00"S GDA94, east to longitude 139°41'00"E GDA94, north to latitude 30°20'00"S GDA94, east to longitude 139°50'00"E GDA94, north to latitude 30°03'00"S GDA94, west to longitude 139°42'00"E GDA94, and north to the point of commencement.

AREA: **498** square kilometres approximately.



SCALE 1:500 000



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: 254**

