

## INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR GEOTHERMAL EXPLORATION LICENCE GEL 223

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1. 16 July 2007 Memorandum entering GEL 223 on the public register, with effect from 24 July 2007, expiring 23 July 2012
2. 24 July 2007 Geothermal Exploration Licence GEL 223  
  
Interests: Osiris Energy Pty Ltd 100%
3. 19 July 2007 Gazettal of Grant of GEL 223.
4. 13 February 2009 Variation of licence conditions.
5. 13 February 2009 Memorandum entering variation of licence on the public register.
6. 20 April 2009 Memorandum entering receipt of security on the public register.
7. 22 June 2009 Variation of licence conditions.
8. 22 June 2009 Memorandum entering variation of licence conditions on the public register.
9. 1 September 2009 Memorandum entering revision to security arrangements on the public register.
10. 16 June 2010 Memorandum entering notation of change of company name on the public register.  
  
From: Osiris Energy Pty Ltd  
To: Osiris Energy Ltd
11. 30 May 2012 Memorandum entering notation of extension of time to lodge renewal application.
12. 18 February 2013 Renewal of licence  
  
Expiry date of GEL 223 is now 23 July 2017  
  
Interest in the licence:  
  
Osiris Energy Limited 100%
13. 18 February 2013 Memorandum entering renewal of licence, effective from 24 July 2012 on the public register.

14. 23 April 2013 Variation of licence conditions.
15. 23 April 2013 Memorandum entering variation of licence conditions on the public register.
16. 15 October 2014 Variation of licence conditions.
17. 15 October 2014 Memorandum entering variation of licence conditions on the public register.
18. 22 May 2017 Memorandum noting extension of time limit to apply for licence renewal is hereby entered on the public register.
19. 10 October 2017 Memorandum noting extension of time limit to accept offer of renewal of GEL 223 dated 3 August 2017 on the public register.
20. 19 October 2017 Renewal of licence.
- GEL 223 is now due to expire on 23 July 2022.
- Interests in the licence are:
- |                   |      |
|-------------------|------|
| Osiris Energy Ltd | 100% |
|-------------------|------|
21. 19 October 2017 Memorandum entering notation of renewal of licence on the public register.

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

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE**  
**GEL 223**

1. Renewal of this licence effective from 24 July 2017 is hereby entered on the public register.
2. Interests in the licence are:

Osiris Energy Ltd	100%
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**BARRY A. GOLDSTEIN**  
**Executive Director**  
**Energy Resources Division**  
**Department of the Premier and Cabinet**  
**Delegate of the Minister for Mineral Resources and Energy**

Date: 19 October 2017

File: F2012/000750

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

## **SECOND RENEWAL OF GEOTHERMAL EXPLORATION LICENCE GEL 223**

I, BARRY ALAN GOLDSTEIN, Executive Director, Energy Resources Division, Department of the Premier and Cabinet, 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 31 March 2017, HEREBY GRANT to:

**Osiris Energy Ltd**  
ACN 116 203 019

(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 24 July 2017 and to expire on 23 July 2022.

### **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>• Decommissioning of the Salamander 1 well and remediation of the well site and associated facilities.</li></ul>
Two	<ul style="list-style-type: none"><li>• Geological and Geophysical Studies.</li></ul>
Three	<ul style="list-style-type: none"><li>• Geological and Geophysical Studies.</li></ul>
Four	<ul style="list-style-type: none"><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 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: 19 October 2017



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

**EXECUTED BY THE LICENSEE:**

**EXECUTED** by Osiris Energy Ltd (ACN 116 203 019)  
in accordance with Section 127 of the  
*Corporations Act 2001*



.....  
Signature of Director



.....  
Signature of Director/Secretary\*

.....CHRIS WOOD.....  
[Print Name of Director]



.....PETER HUNT.....  
[Print Name of Director/Secretary\*]  
(\*delete the inapplicable)

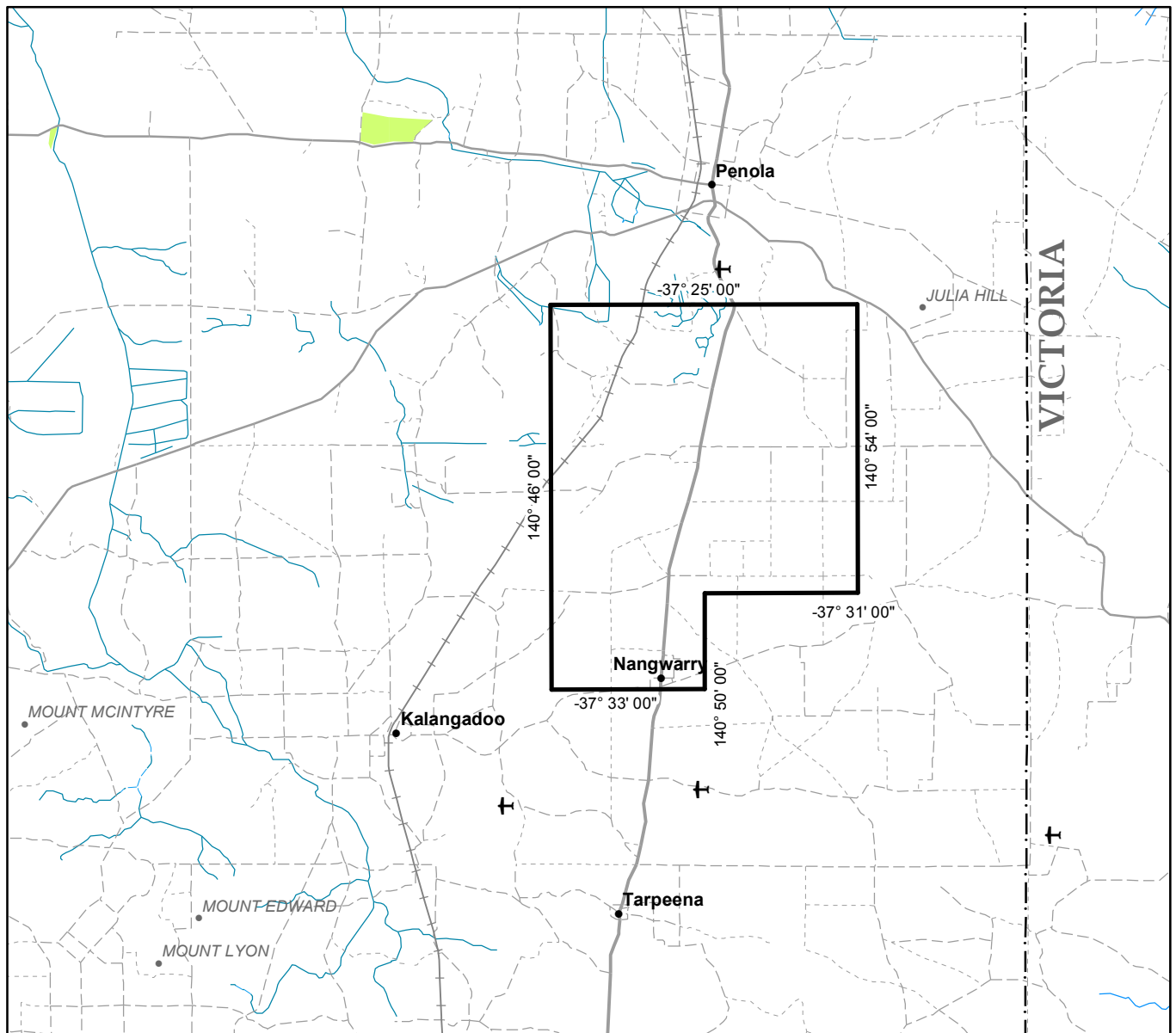
**THE SCHEDULE**  
**GEOHERMAL EXPLORATION LICENCE**  
**GEL 223**

**Description of Area**

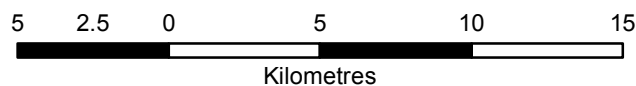
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 37°25'00"S GDA94 and longitude 140°46'00"E GDA94, thence east to longitude 140°54'00"E GDA94, south to latitude 37°31'00"S GDA94, west to longitude 140°50'00"E GDA94, south to latitude 37°33'00"S GDA94, west to longitude 140°46'00"E GDA94, and north to the point of commencement.

AREA: **152.58** 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

**GEOTHERMAL EXPLORATION LICENCE NO: 223**

***Petroleum and Geothermal Energy Act 2000***  
**S.134**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 223**

1. Notation of an extension of time to 17 October 2017 by which the licensee must accept the offer dated 3 August 2017 for renewal of Geothermal Exploration Licence GEL 223 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: 10 October 2017


File: F2012/000750

***Petroleum and Geothermal Energy Act 2000***  
**S.134**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 223**

1. Notation of extension of time to 21 July 2017 by which the licensee must apply for the renewal of Geothermal Exploration Licence GEL 223 is hereby entered on the public register.



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

Date: 22 May 2017

File: F2012/000750

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

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 223 and 611**

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

A handwritten signature in black ink, appearing to read 'Bc 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**

Date: 15 October 2014

Ref: F2012/000749  
F2012/000750

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

## **VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 223 and 611**

I, BARRY ALAN GOLDSTEIN, Executive Director, Energy Resources Division, Department of State Development, 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 -

**Osiris Energy Ltd**  
ACN 116 203 019

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

GEL 223

" 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>• Geological and geophysical studies.</li></ul>
<b>Two</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. <i>(Year 2 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li></ul>
<b>Three</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. <i>(Year 3 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li></ul>
<b>Four</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. <i>(Year 4 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li></ul>
<b>Five</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. <i>(Year 5 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li></ul>

"

" 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>Geological and geophysical studies. <i>(Year 1 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
<b>Two</b>	<ul style="list-style-type: none"> <li>Geological and geophysical studies. <i>(Year 2 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
<b>Three</b>	<ul style="list-style-type: none"> <li>Geological and geophysical studies. <i>(Year 3 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
<b>Four</b>	<ul style="list-style-type: none"> <li>Geological and geophysical studies. <i>(Year 4 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
<b>Five</b>	<ul style="list-style-type: none"> <li>Geological and geophysical studies.</li> </ul>

"

Dated: 15 October 2014



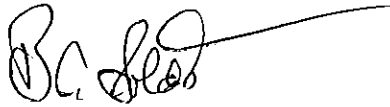
**BARRY A. GOLDSTEIN**  
**Executive Director**  
**Energy Resources Division**  
**Department of State Development**  
**Delegate of the Minister for Mineral Resources and Energy**

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

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 223 and 611**

1. Variation of licence conditions 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: 23 April 2013

Ref: F2012/749  
F2012/750

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

## **VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 223 and 611**

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 -

**Osiris Energy Ltd**  
ACN 116 203 019

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

GEL 223

" 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>• Geological and geophysical studies.</li></ul>
<b>Two</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. (Year 2 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</li></ul>
<b>Three</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. (Year 3 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</li></ul>
<b>Four</b>	<ul style="list-style-type: none"><li>• Drill one well. (Year 4 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</li></ul>
<b>Five</b>	<ul style="list-style-type: none"><li>• Geological and geophysical studies. (Year 5 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</li></ul>

"

" 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"> <li>Geological and geophysical studies. <i>(Year 1 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
Two	<ul style="list-style-type: none"> <li>Geological and geophysical studies. <i>(Year 2 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
Three	<ul style="list-style-type: none"> <li>Drill one well. <i>(Year 3 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
Four	<ul style="list-style-type: none"> <li>Geological and geophysical studies. <i>(Year 4 work program may be conducted anywhere within the boundaries of GELs 223 and 611).</i></li> </ul>
Five	<ul style="list-style-type: none"> <li>Geological and geophysical studies.</li> </ul>

"

Dated: 23 April 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**

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

**MEMORANDUM**

**RENEWAL OF  
GEOTHERMAL EXPLORATION LICENCE  
GEL 223**

1. Renewal of this licence, effective from 24 July 2012 is hereby entered on the public register.

Expiry date: 23 July 2017

2. Interests in the licence are:

Osiris Energy Limited

100%



**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: 18 February 2013

File: F2012/750

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

## **FIRST RENEWAL OF GEOTHERMAL EXPLORATION LICENCE GEL 223**

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:

**Osiris Energy Ltd**  
ACN 116 203 019

(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 24 July 2012 and to expire on 23 July 2017 and carrying the right to one further renewal term subject to the provisions of the *Petroleum and Geothermal Energy Act 2000*.

### **DESCRIPTION OF AREA**

18/2/13 BAG

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"><li>• Geological and Geophysical Studies.</li></ul>
Two	<ul style="list-style-type: none"><li>• Geological and Geophysical Studies.</li></ul>
Three	<ul style="list-style-type: none"><li>• Geological and Geophysical Studies.</li></ul>
Four	<ul style="list-style-type: none"><li>• Drill one deep well or recomplete a suitable existing well.</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. 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,
- 3.1 Interest will not be payable by the Minister to the Licensee on any cash Security.
- 3.2 All charges incurred by the Licensee in obtaining and maintaining the Security shall be met by the Licensee.
- 3.3 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.
4. 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).
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.

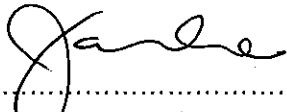
Date: 18 February 2013



.....  
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

Signed by the said LICENSEE

Date: 11/12/2012

  
.....  
Authorised Representative

KERRY PARKER  
.....  
Name

MD  
.....  
Position

PANAX GLOTHERMAL  
.....  
Company

## **THE SCHEDULE**

### **GEOHERMAL EXPLORATION LICENCE**

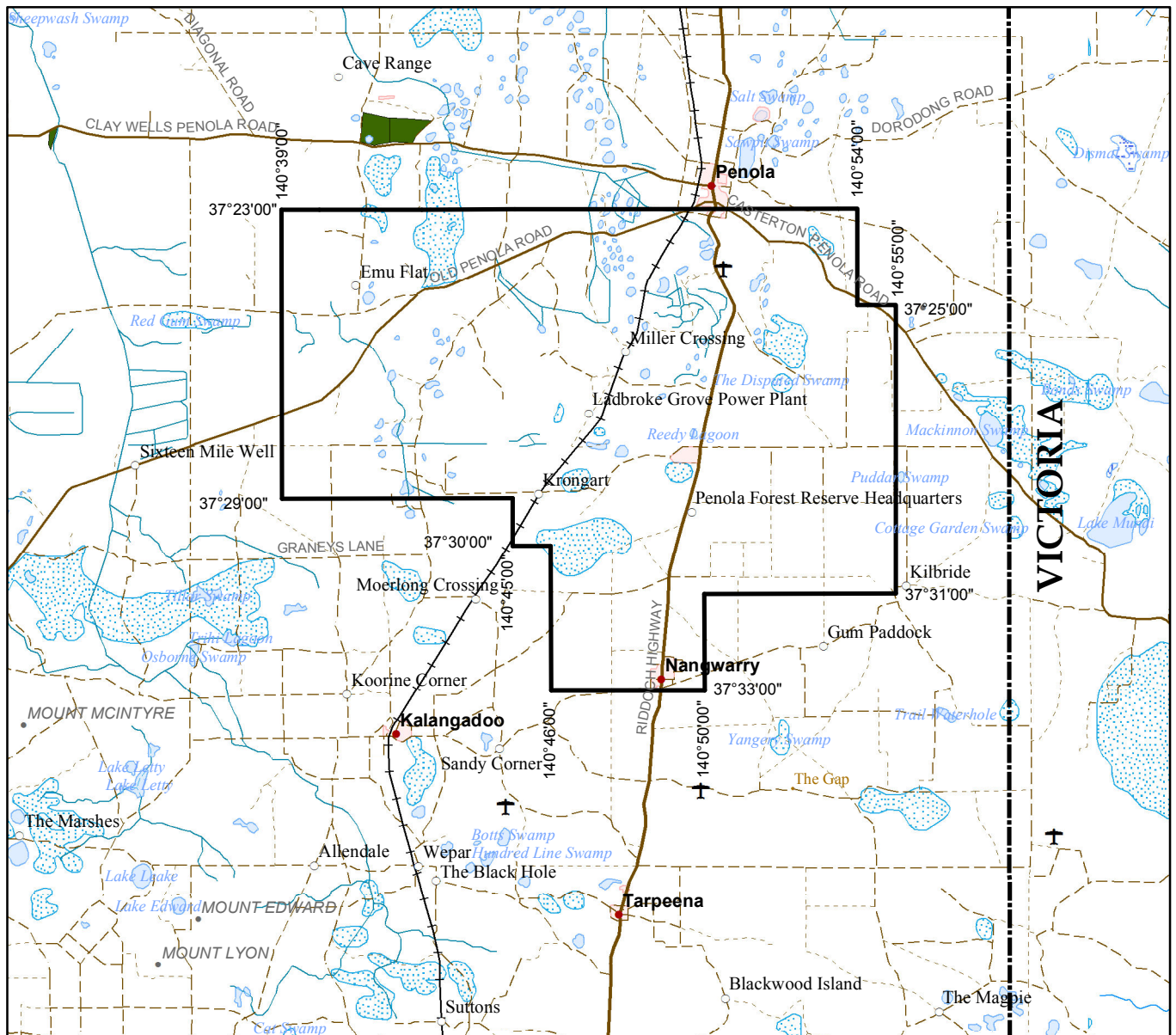
#### **GEL 223**

##### **Description of Area**

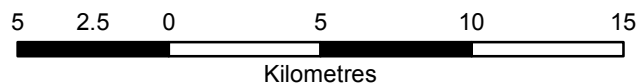
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 37°23'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°54'00"E GDA94, south to latitude 37°25'00"S GDA94, east to longitude 140°55'00"E GDA94, south to latitude 37°31'00"S GDA94, west to longitude 140°50'00"E GDA94, south to latitude 37°33'00"S GDA94, west to longitude 140°46'00"E GDA94, north to latitude 37°30'00"S GDA94, west to longitude 140°45'00"E GDA94, north to latitude 37°29'00"S GDA94, west to longitude 140°39'00"E GDA94, and north to the point of commencement.

AREA: 330 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

**GEO THERMAL EXPLORATION LICENCE NO: 223**



Government of South Australia  
Department for Manufacturing,  
Innovation, Trade, Resources and Energy

SR 27/2/373

AREA: 330 sq km (approx)

***Petroleum and Geothermal Energy Act 2000***  
**S.134**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 223**

1. Notation of extension of time to 23 July 2012 by which the licensee must apply for the renewal of Geothermal Exploration Licence GEL 223 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: 30 May 2012

File: 27/2/373

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

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 220, 221, 223 and 281**

1. Notation of change of company name –

From: Osiris Energy Pty Ltd  
To: Osiris Energy 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: 16 June 2010

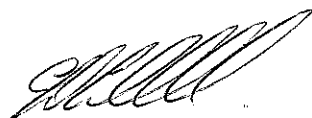
File: 27/2/370  
27/2/371  
27/2/373  
27/2/447

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

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 170, 171, 172, 173, 184, 212, 220, 221, 223 and 484**

1. Notation of revision to security arrangements is hereby entered on the public register of licences.



**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 September 2009

Ref:	27/2/293	27/2/370
	27/2/294	27/2/371
	27/2/295	27/2/354
	27/2/296	27/2/373
	27/2/310	27/2/551

**Petroleum Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES  
GELs 170, 171, 172, 173,  
184, 212, 223 & 484**

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: 22 June 2009

Ref: 27/2/293	27/2/310
27/2/294	27/2/354
27/2/295	27/2/373
27/2/296	27/2/551

# Petroleum Act 2000

## VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 223

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, hereby vary the conditions of Geothermal Exploration Licence GEL 223 held by -

**Osiris Energy Pty Ltd**  
ACN 116 203 019

Condition 1 of the 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. 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"><li>• Geological and geophysical review.</li></ul> <i>Year 1 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212 and 223.</i>
Two	<ul style="list-style-type: none"><li>• Re-interpretation of 1,200 line km of 2D seismic data;</li><li>• Review SEEBASE 3D geological model;</li><li>• 159 station MT survey across Rivoli, St Clair, Tantanoola and Rendelsham Troughs; and</li><li>• Drill narrow diameter holes to an aggregate depth of at least 1,800m and measure geothermal gradients.</li></ul> <i>Year 2 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212 and 223.</i>
Three	<ul style="list-style-type: none"><li>• Drill 1 deep well;</li><li>• Measure geothermal gradients;</li><li>• Measurement of detailed geothermal gradients in relevant and accessible water wells;</li><li>• Conduct infill geophysical surveys (if required); and</li><li>• Geological and geophysical studies</li></ul> <i>Year 3 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212, 223 and 484</i>

Four	<ul style="list-style-type: none"> <li>• Geological and geophysical studies.</li> </ul>
Five	<ul style="list-style-type: none"> <li>• Geological and geophysical studies.</li> </ul>

”

Dated: 22 June 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**

**Petroleum Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES  
GELs 220, 221 and 223**

1. Notation of receipt of security 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: 20 April 2009

Ref: 27/2/370  
27/2/371  
27/2/373

**Petroleum Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES  
GELs 170, 171, 172, 173, 184, 212 and 223**

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: 13 February 2009

Ref: 27/2/293      27/2/310  
27/2/294      27/2/354  
27/2/295      27/2/373  
27/2/296

# Petroleum Act 2000

## VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 223

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 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 hereby vary the conditions of Geothermal Exploration Licence GEL 223 held by-

**Osiris Energy Pty Ltd**  
ACN 116 203 019

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

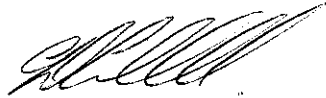
- " 1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any 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>• Review of existing geological and geophysical data.</li></ul>
Two	<ul style="list-style-type: none"><li>• Drill 1 deep well;</li><li>• Measure geothermal gradient;</li><li>• Measurement of detailed geothermal gradients in relevant and accessible water wells;</li><li>• Conduct infill geophysical surveys (if required); and</li><li>• Geological and geophysical studies.</li></ul> <p><i>Year 2 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212 and 223.</i></p>
Three	<ul style="list-style-type: none"><li>• Seismic reprocessing; and</li><li>• Geological and geophysical studies.</li></ul>
Four	<ul style="list-style-type: none"><li>• Conduct shallow pilot drilling and measure detailed geothermal gradients;</li><li>• Design and plan a demonstration heat exchange plant; and</li><li>• Geological and geophysical review.</li></ul>

Five	<ul style="list-style-type: none"> <li>• Drill 1 deep well; and</li> <li>• Measure detailed geothermal gradient.</li> </ul>
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"

Dated: 13 February 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

*Grant of Geothermal Exploration Licence—GEL 223*

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, with effect from 24 July 2007.

No. of Licence	Licensee	Locality	Expiry
GEL 223	Osiris Energy Pty Ltd	Otway Basin	23 July 2012

*Description of Area—GEL 223*

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

Commencing at a point being the intersection of latitude 37°23'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°54'00"E GDA94, south to latitude 37°25'00"S GDA94, west to longitude 140°55'00"E GDA94, south to latitude 37°31'00"S GDA94, west to longitude 140°50'00"E GDA94, south to latitude 37°36'00"S GDA94, west to longitude 140°39'00"E GDA94 and north to the point of commencement.

Area: 493 km<sup>2</sup> approximately.

Dated 16 July 2007.

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

## COMMONWEALTH OF AUSTRALIA

## PETROLEUM (SUBMERGED LANDS) ACT 1967

*Delegation Under Section 8H of the Petroleum (Submerged Lands) Act 1967 (Commonwealth)*

THE Joint Authority in respect of the adjacent area in respect of the State of South Australia hereby revokes all existing delegations made pursuant to section 8H of the Act and delegates all its powers under the Act (other than the power of delegation), or under an Act that incorporates the Act, to the following two persons together:

- the person from time to time performing the duties of General Manager, Offshore Resources Branch, Resources Division, Commonwealth Department of Industry, Tourism and Resources, as the person representing the Commonwealth Minister; and
- the person from time to time holding, occupying, or performing the duties of the office of Director of Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources of the State of South Australia, as the person representing the State Minister.

Dated 12 June 2007.

IAN ELGIN MACFARLANE, Minister for  
Industry, Tourism and Resources

Dated 7 July 2007.

PAUL HOLLOWAY, Minister for Mineral  
Resources Development

## THE RENMARK IRRIGATION TRUST

*Annual Elections 2007*

NOTICE is hereby given in accordance with section 38 of the Renmark Irrigation Trust Act 1936-2000, that at the elections duly held on Saturday, 7 July 2007, the following ratepayers were elected as Members of the Trust:

Peter Michael Burne  
Peter James Duggin  
Michael Himsworth  
David Jeffrey Ludas

Dated 9 July 2007.

W. D. MORRIS, Returning Officer

## RIVER TORRENS LINEAR PARK ACT 2006

*River Torrens Linear Park Public Lands Plan*

TAKE notice that pursuant to section 3 of the River Torrens Linear Park Act 2006, I, Paul Holloway, Minister for Urban Development and Planning, do hereby identify for the purpose of the definition of 'plan', the River Torrens Linear Park Public Lands Plan being Plan No. 13 of 2007 deposited in the General Registry Office at Adelaide by me on 2 March 2007.

Dated 9 July 2007.

PAUL HOLLOWAY, Minister for Urban  
Development and Planning

## ROADS (OPENING AND CLOSING) ACT 1991:

## SECTION 24

**NOTICE OF CONFIRMATION OF ROAD  
PROCESS ORDER***Road Closure  
Ramsay Street, Port Pirie South*

BY Road Process Order made on 16 January 2007, the Port Pirie Regional Council ordered that:

1. The whole of Ramsay Street between Batty and Hilda Streets and adjoining piece 1 in Filed Plan 103097 and allotments 40 to 43 and 46 in Deposited Plan 2910, more particularly delineated and lettered 'A' in Preliminary Plan No. 06/0014 be closed.

2. The whole of the land subject to closure be transferred to John Hannan Munn and Karen Mary Munn in accordance with agreement for transfer dated 6 October 2006 entered into between the Port Pirie Regional Council and J. H. and K. M. Munn.

3. The following easement be granted over portion of the land subject to that closure:

Grant to the Port Pirie Regional Council an easement for drainage purposes.

On 8 July 2007 that order was confirmed by the Minister for Infrastructure conditionally upon the deposit by the Registrar-General of Deposited Plan 73559 being the authority for the new boundaries.

# **PETROLEUM ACT 2000**

## **GEOHERMAL EXPLORATION LICENCE**

### **GEL 223**

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:

**Osiris Energy Pty Ltd ACN 116 203 019**

(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 24 July 2007 and to expire on 23 July 2012 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>• Review of existing geological and geophysical data.</li></ul>
<b>Two</b>	<ul style="list-style-type: none"><li>• Measurement of detailed geothermal gradients in relevant and accessible water wells;</li><li>• Conduct infill geophysical surveys (if required);</li><li>• Geological and geophysical studies.</li></ul>
<b>Three</b>	<ul style="list-style-type: none"><li>• Seismic reprocessing;</li><li>• Geological and geophysical studies.</li></ul>

<b>Four</b>	<ul style="list-style-type: none"> <li>• Conduct shallow pilot drilling and measure detailed geothermal gradients;</li> <li>• Design and plan a demonstration heat exchange plant.</li> </ul>
<b>Five</b>	<ul style="list-style-type: none"> <li>• Drill 1 deep well;</li> <li>• Measure detailed geothermal gradient.</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.

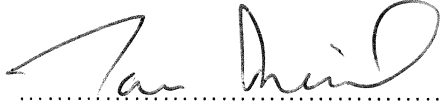
Date: 16 July.....2007



.....  
**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: 8<sup>th</sup> May 2007



Authorised Representative

IAN REID

Name

DIRECTOR

Position

OSIRIS ENERGY PTY LTD

Company



Witness

RON PALMER

Name

DIRECTOR

Position

OSIRD ENERGY PTY LTD

Company

# GEOTHERMAL EXPLORATION LICENCE

## GEL 223

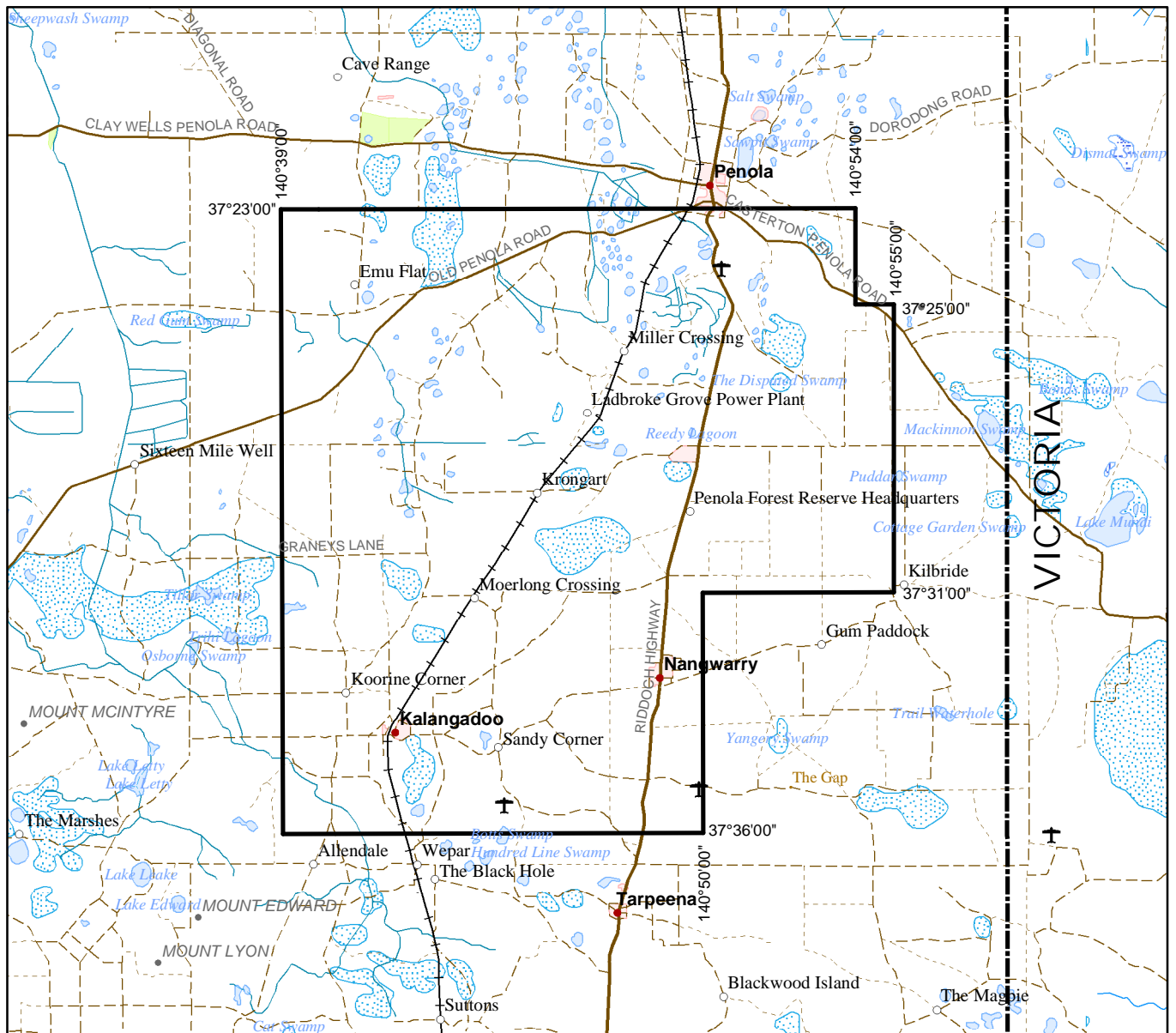
### THE SCHEDULE

#### Description of Area

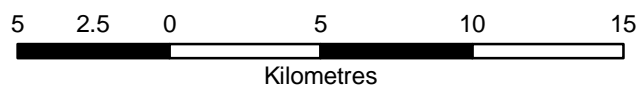
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 37°23'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°54'00"E GDA94, south to latitude 37°25'00"S GDA94, east to longitude 140°55'00"E GDA94, south to latitude 37°31'00"S GDA94, west to longitude 140°50'00"E GDA94, south to latitude 37°36'00"S GDA94, west to longitude 140°39'00"E GDA94, and north to the point of commencement.

AREA: **493** 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: 223**



Government of South Australia  
Primary Industries and Resources SA

SR 27/2/373

AREA: 493 sq km (approx)

**Petroleum Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 223**

1. The Licence granted with effect from and including 24 July 2007 is hereby entered on the public register.
2. Interest in the licence is:-

Osiris Energy Pty Ltd                      100%



**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: 16 July 2007

Ref: 27/2/373