



## PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Surrender of Geothermal Exploration Licences—GELs 170, 212 and 484*

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

No. of Licences	Licensees	Date of Surrender	Reference
GEL 170	Scopenergy Limited	18 February 2013	27/2/293
GEL 212	Scopenergy Limited	18 February 2013	27/2/354
GEL 484	Osiris Energy Limited	18 February 2013	27/2/551

Dated 18 February 2013.

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**  
**S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCES**  
**GELs 170, 212 and 484**

Surrender of the abovementioned Geothermal Exploration Licences with effect from 18 February 2013 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: 18 February 2013

Ref: 27/2/293  
27/2/345  
27/2/551

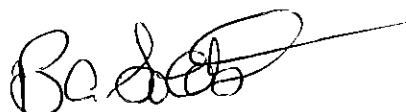
## ***Petroleum and Geothermal Energy Act 2000***

### **SURRENDER OF GEOTHERMAL EXPLORATION LICENCES GELs 170, 212 and 484**

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 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 hereby accept with effect from 18 February 2013, the surrender of the following Geothermal Exploration Licences:

1. GELs 170 and 212 in the name of Scopenergy Limited
2. GEL 484 in the name of Osiris Energy Limited.

Dated: 18 February 2013



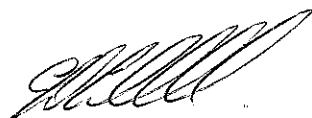
**BARRY A. GOLDSTEIN**  
**Executive Director**  
**Energy Resources Division**  
**Department for Manufacturing, Innovation, Trade, Resources and Energy**  
**Delegate of the Minister for Mineral Resources and Energy**

**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 484

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 484 held by -

**Osiris Energy 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>• 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> <p><i>Year 1 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212, 223 and 484.</i></p>
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>
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Dated: 22 June 2009



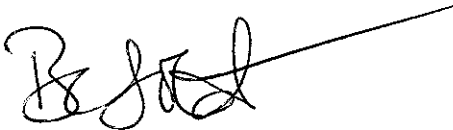
**BARRY A. GOLDSTEIN**  
**Director Petroleum and Geothermal**  
**Minerals and Energy Resources**  
**Primary Industries and Resources SA**  
**Delegate of the Minister for Mineral Resources Development**

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

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 484**

1. Suspension of licence from and including 20 April 2009 to 23 July 2009 is hereby entered on the public register.
2. The expiry date of GEL 484 is now 23 July 2014.



**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: 27/2/551

***Petroleum Act 2000***  
**S.90**

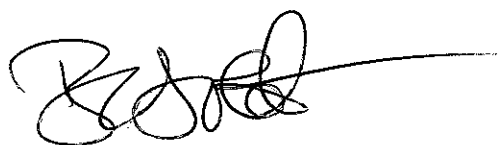
**SUSPENSION OF  
GEOTHERMAL EXPLORATION LICENCE  
GEL 484**

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources, in the State of South Australia, pursuant to the provisions of the *Petroleum 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 –

(a) suspend geothermal exploration licence GEL 484 for the period from and including 20 April 2009 to 23 July 2009.

1. No regulated activities are permitted to be carried out during the period of the suspension.
2. The expiry date of GEL 484 is now 23 July 2014.

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

*Grant of Geothermal Exploration Licence—GEL 484*

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 484	Osiris Energy Ltd	Penola Trough, Otway Basin	19 April 2014

*Description of Area—GEL 484*

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

Commencing at a point being the intersection of latitude 37°10'00"S GDA94 and longitude 140°54'00"E GDA94, thence east to the eastern border of the State of South Australia, thence southerly along the border of the said State to latitude 37°41'00"S GDA94, west to longitude 140°55'00"E GDA94, north to latitude 37°40'00"S GDA94, west to longitude 140°52'00"E GDA94, north to latitude 37°39'00"S GDA94, west to longitude 140°46'00"E GDA94, north to latitude 37°38'00"S GDA94, west to longitude 140°45'00"E GDA94, north to latitude 37°36'00"S GDA94, east to longitude 140°55'00"E GDA94, north to latitude 37°31'00"S GDA94, east to longitude 140°55'00"E GDA94, north to latitude 37°25'00"S GDA94, west to longitude 140°54'00"E GDA94 and north to the point of commencement.

Area 445 km<sup>2</sup> approximately.

Dated 20 April 2009.

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

**Petroleum Act 2000  
S.115**

**MEMORANDUM**

**GEOHERMAL EXPLORATION LICENCE  
GEL 484**

1. This Licence granted with effect from and including 20 April 2009 is hereby entered on the public register.
  
2. Interests in the licence are:-  

Osiris Energy Ltd.	100%
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3. 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: 27/2/551

# PETROLEUM ACT 2000

## GEOTHERMAL EXPLORATION LICENCE

### GEL 484

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 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 for a period of five years and to expire on 19 April 2014 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:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none"><li>• Seismic reprocessing; and</li><li>• Geological and geophysical studies.</li></ul>
Two	<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>

<b>Three</b>	<ul style="list-style-type: none"> <li>• Drill 1 deep well; and</li> <li>• Measure detailed geothermal gradient.</li> </ul>
<b>Four</b>	<ul style="list-style-type: none"> <li>• Geological and geophysical studies.</li> </ul>
<b>Five</b>	<ul style="list-style-type: none"> <li>• Geological and geophysical studies.</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: 20 April 2009



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**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: 15/4/09

  
.....  
Authorised Representative

KERRY PARKER  
.....  
Name

DIRECTOR  
.....  
Position

PANAX GEOTHERMAL  
.....  
Company



# GEOTHERMAL EXPLORATION LICENCE

**GEL 484**

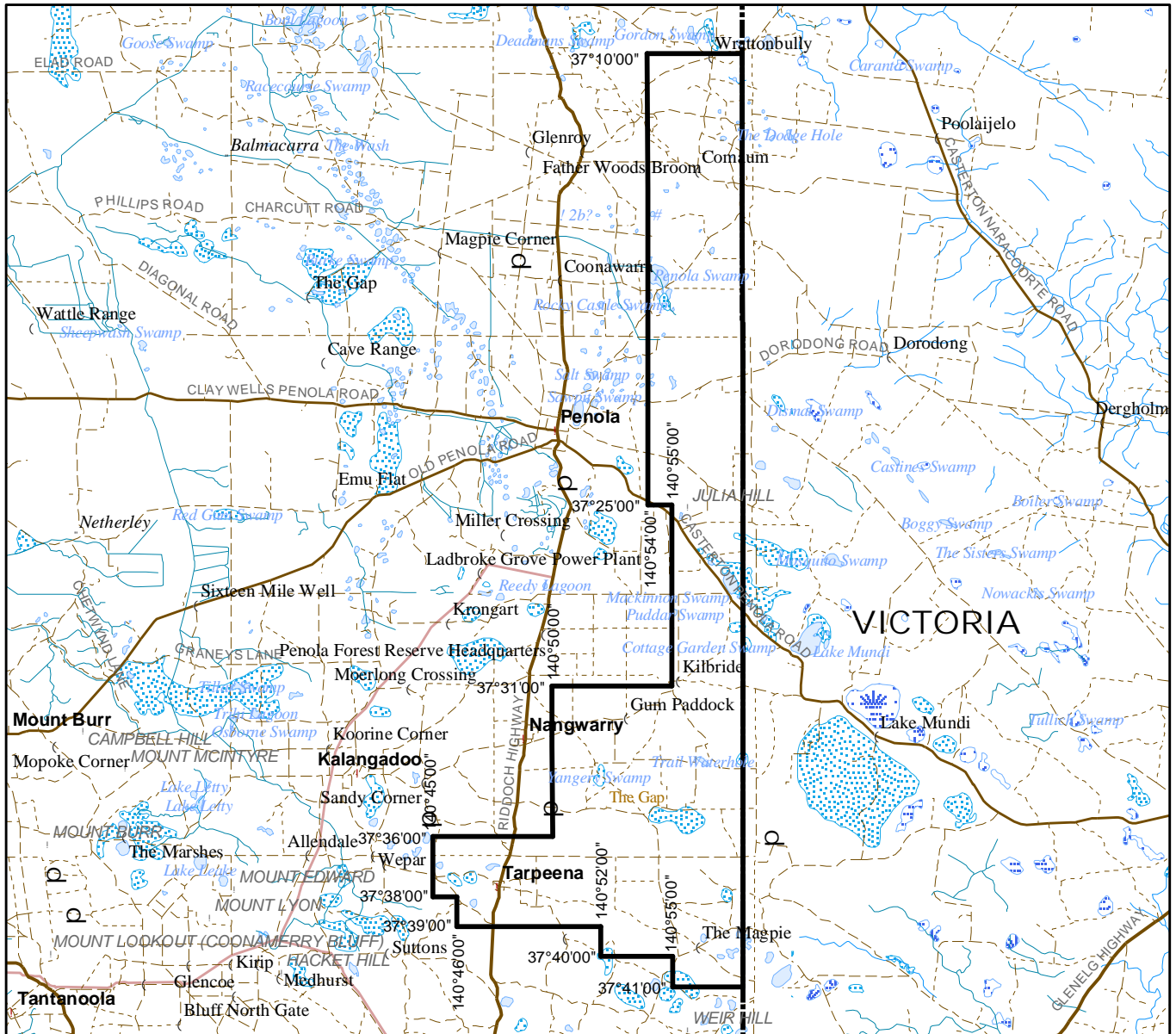
## THE SCHEDULE

### Description of Area

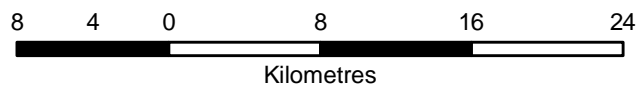
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 37°10'00"S GDA94 and longitude 140°54'00"E GDA94, thence east to the eastern border of the State of South Australia, thence southerly along the border of the said State to latitude 37°41'00"S GDA94, west to longitude 140°55'00"E GDA94, north to latitude 37°40'00"S GDA94, west to longitude 140°52'00"E GDA94, north to latitude 37°39'00"S GDA94, west to longitude 140°46'00"E GDA94, north to latitude 37°38'00"S GDA94, west to longitude 140°45'00"E GDA94, north to latitude 37°36'00"S GDA94, east to longitude 140°50'00"E GDA94, north to latitude 37°31'00"S GDA94, east to longitude 140°55'00"E GDA94, north to latitude 37°25'00"S GDA94, west to longitude 140°54'00"E GDA94, and north to the point of commencement.

AREA: **445** square kilometres approximately.



SCALE 1:400 000



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: 484**