

INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR GEOTHERMAL EXPLORATION LICENCE GEL 220

- | | |
|----------------------|--|
| 1. 24 July 2006 | Memorandum entering GEL 220 on the public register. |
| 2. 24 July 2006 | Geothermal Exploration Licence GEL 220

Interests: Osiris Energy Pty Ltd 100% |
| 3. 27 July 2006 | Gazettal of Grant of GEL 220 |
| 4. 11 September 2007 | Variation of Geothermal Exploration Licence GEL 220. |
| 5. 11 September 2007 | Memorandum dated 11 September 2007 entering variation of licence conditions on the public register. |
| 6. 20 April 2009 | Memorandum entering receipt of security on the public register. |
| 7. 1 September 2009 | Memorandum entering revision to security arrangements on the public register. |
| 8. 28 May 2010 | Suspension of licence for the period from and including 10 May 2010 to 9 November 2010.

New expiry date of GEL 220 is 23 January 2012. |
| 9. 28 May 2010 | Memorandum entering suspension of licence on the public register. |
| 10. 3 June 2010 | Gazettal of suspension. |
| 11. 16 June 2010 | Memorandum entering notation of change of company name on the public register.

From: Osiris Energy Pty Ltd
To: Osiris Energy Ltd |
| 12. 15 March 2011 | Variation of licence condition |
| 13. 15 March 2011 | Memorandum entering variation of licence condition on the public register. |

14. 21 March 2012 Consolidation of licence area with GELs 220 and 221 with effect from 21 November 2011
- The total area of GEL 220 is now approximately 949 km²
15. 21 March 2012 Memorandum entering consolidation of licence area on the public register.
16. 11 April 2012 Renewal of licence
- Expiry date of GEL 220 is now 23 January 2017
- Interest in the licence:
- | | |
|-----------------------|------|
| Osiris Energy Limited | 100% |
|-----------------------|------|
17. 11 April 2012 Memorandum entering renewal of licence, effective from 24 January 2012 on the public register.
18. 16 December 2013 Surrender of licence with effect from 23 January 2014.
19. 16 December 2013 Memorandum entering surrender of licence on the public register.
20. 19 December 2013 Gazettal of surrender of licence

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

Surrender of Geothermal Exploration Licences—GELs 220, 281 and 502

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 Licence	Licensee	Date of Surrender	Reference
GEL 220	Osiris Energy Limited	23 January 2014	27/02/370
GEL 281	Osiris Energy Limited	13 November 2013	27/02/447
GEL 502	Raya Group Limited	13 November 2013	27/02/567

Dated 16 December 2013.

B. A. GOLDSTEIN,
Executive Director
Energy Resources Division
Department for Manufacturing, Innovation, Trade, Resources and Energy

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCE
GEL 220**

Surrender of the abovementioned Geothermal Exploration Licence with effect from 23 January 2014 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: 16 December 2013

Ref: 27/2/370

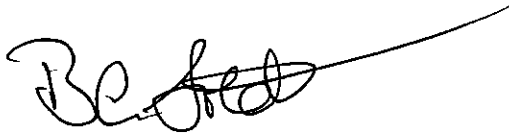
Petroleum and Geothermal Energy Act 2000

SURRENDER OF GEOTHERMAL EXPLORATION LICENCE GEL 220

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 23 January 2014, the surrender of the following Geothermal Exploration Licence:

1. GEL 220 in the name of Osiris Energy Limited

Dated: 16 December 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 220**

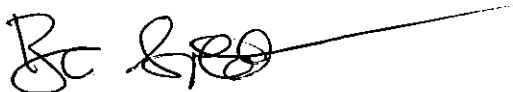
1. Renewal of this licence, effective from 24 January 2012 is hereby entered on the public register.

Expiry date: 23 January 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: 11 April 2012

File: 27/2/370

Petroleum and Geothermal Energy Act 2000

FIRST RENEWAL OF GEOTHERMAL EXPLORATION LICENCE GEL 220

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 Limited
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 January 2012 and to expire on 23 January 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

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

CONDITIONS

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

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Geological and geophysical studies.
Two	<ul style="list-style-type: none">• Geological and geophysical studies.
Three	<ul style="list-style-type: none">• One well
Four	<ul style="list-style-type: none">• One well; and• Geological and geophysical studies.
Five	<ul style="list-style-type: none">• Geological and geophysical studies.

2. 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 this 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 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: 11 April 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

Signed by the said LICENSEE

Date: 2/4/12

.....
Authorised Representative

Harry Parker

Name

Managing Director

Position

Lanox Geothermal

Company

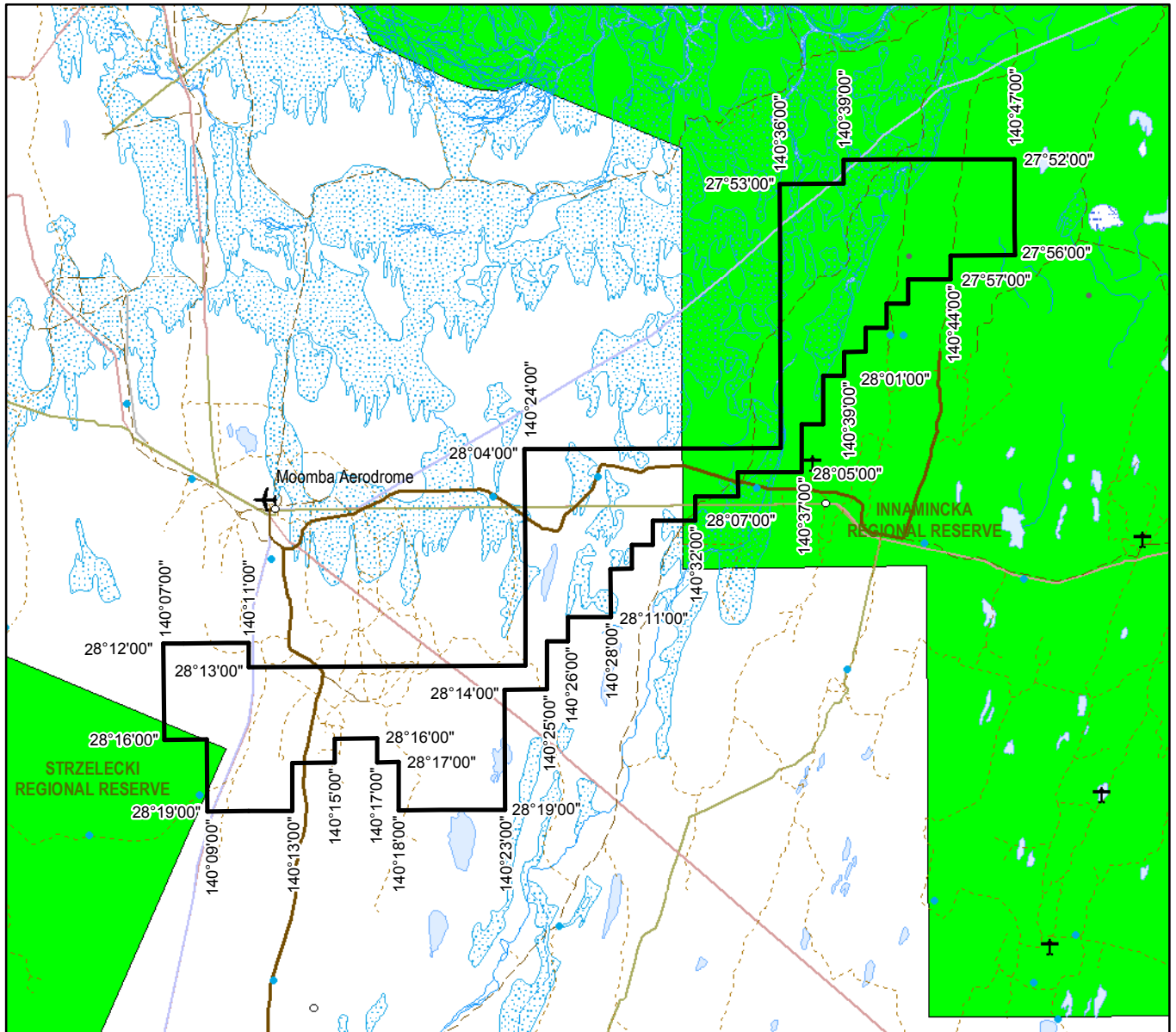
THE SCHEDULE
GEOHERMAL EXPLORATION LICENCE
GEL 220

Description of Area

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

Commencing at a point being the intersection of latitude 27°52'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°47'00"E GDA94, south to latitude 27°56'00"S GDA94, west to longitude 140°44'00"E GDA94, south to latitude 27°57'00"S GDA94, west to longitude 140°42'00"E GDA94, south to latitude 27°58'00"S GDA94, west to longitude 140°41'00"E GDA94, south to latitude 27°59'00"S GDA94, west to longitude 140°40'00"E GDA94, south to latitude 28°00'00"S GDA94, west to longitude 140°39'00"E GDA94, south to latitude 28°01'00"S GDA94, west to longitude 140°38'00"E GDA94, south to latitude 28°03'00"S GDA94, west to longitude 140°37'00"E GDA94, south to latitude 28°05'00"S GDA94, west to longitude 140°34'00"E GDA94, south to latitude 28°06'00"S GDA94, west to longitude 140°32'00"E GDA94, south to latitude 28°07'00"S GDA94, west to longitude 140°30'00"E GDA94, south to latitude 28°08'00"S GDA94, west to longitude 140°29'00"E GDA94, south to latitude 28°09'00"S GDA94, west to longitude 140°28'00"E GDA94, south to latitude 28°11'00"S GDA94, west to longitude 140°26'00"E GDA94, south to latitude 28°12'00"S GDA94, west to longitude 140°25'00"E GDA94, south to latitude 28°14'00"S GDA94, west to longitude 140°23'00"E GDA94, south to latitude 28°19'00"S GDA94, west to longitude 140°18'00"E GDA94, north to latitude 28°17'00"S GDA94, west to longitude 140°17'00"E GDA94, north to latitude 28°16'00"S GDA94, west to longitude 140°15'00"E GDA94, south to latitude 28°17'00"S GDA94, west to longitude 140°13'00"E GDA94, south to latitude 28°19'00"S GDA94, west to longitude 140°09'00"E GDA94, north to latitude 28°16'00"S GDA94, west to longitude 140°07'00"E GDA94, north to latitude 28°12'00"S GDA94, east to longitude 140°11'00"E GDA94, south to latitude 28°13'00"S GDA94, east to longitude 140°24'00"E GDA94, north to latitude 28°04'00"S GDA94, east to longitude 140°36'00"E GDA94, north to latitude 27°53'00"S GDA94, east to longitude 140°39'00"E GDA94, and north to the point of commencement.

AREA: 632 square kilometres approximately.



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: 220



Government of South Australia
Primary Industries and Resources SA

SR 27/2/370

AREA: 632 sq km (approx)

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 220 and 221

1. Consolidation of the adjacent licence areas of GELs 220 and 221 with effect from 21 November 2011 is hereby entered on the public register.

The consolidated licence area is designated as GEL 220.

The total area of GEL 220 is now 949 square kilometres approximately.

2. Revocation of GEL 221 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: 21 March 2012

Ref: 27/2/370

Petroleum and Geothermal Energy Act 2000

CONSOLIDATION OF LICENCE AREAS GEOTHERMAL EXPLORATION LICENCES GELs 220 and 221

REVOCATION OF LICENCE GEOTHERMAL EXPLORATION LICENCE GEL 221

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

1. Consolidate the adjacent areas of Geothermal Exploration Licences GELs 220 and 221 held by -

Osiris Energy Ltd
ACN 116 203 019

The consolidated licence area shall be designated as:

Geothermal Exploration Licence GEL 220

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 27°52'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°47'00"E GDA94, south to latitude 27°57'00"S GDA94, west to longitude 140°45'00"E GDA94, south to latitude 28°01'00"S GDA94, west to longitude 140°42'00"E GDA94, south to latitude 28°03'00"S GDA94, west to longitude 140°39'00"E GDA94, south to latitude 28°05'00"S GDA94, west to longitude 140°35'00"E GDA94, south to latitude 28°07'00"S GDA94, west to longitude 140°32'00"E GDA94, south to latitude 28°08'00"S GDA94, west to longitude 140°30'00"E GDA94, south to latitude 28°19'00"S GDA94, west to longitude 140°09'00"E GDA94, north to latitude 28°16'00"S GDA94, west to longitude 140°07'00"E GDA94, north to latitude 28°12'00"S GDA94, east to longitude 140°11'00"E GDA94, south to latitude 28°13'00"S GDA94, east to longitude 140°24'00"E GDA94, north to latitude 28°04'00"S GDA94, east to longitude 140°36'00"E GDA94, north to latitude 27°53'00"S GDA94, east to longitude 140°39'00"E GDA94, and north to the point of commencement.

AREA: 949 square kilometres approximately.

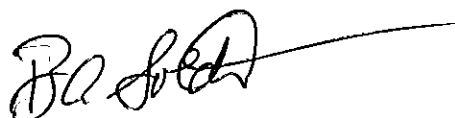


2. Consequently revoke Geothermal Exploration Licence GEL 221.

As a consequence of the consolidation, the work program forming 'condition 1' of the consolidated GEL 220 comprises:

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Review geological and geophysical studies.
Two	<ul style="list-style-type: none">• Geological and geophysical studies.
Three	<ul style="list-style-type: none">• 100km Seismic reprocessing;• Conduct 100 km² gravity survey (if required);• Measurement of detailed geothermal gradients in relevant and accessible wells.
Four	<ul style="list-style-type: none">• Geological and Geophysical studies
Five	<ul style="list-style-type: none">• Geological and geophysical studies.

Dated: 21 March 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



The following signature evidences the consent of the licensee to the consolidation of GELs 220 and 221 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 **Osiris Energy Ltd** by its authorised representative:

23/2/12

.....
Date



.....
Authorised Representative

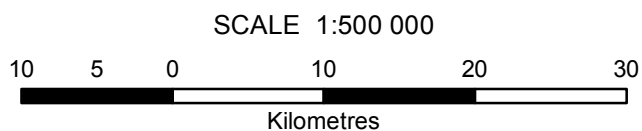
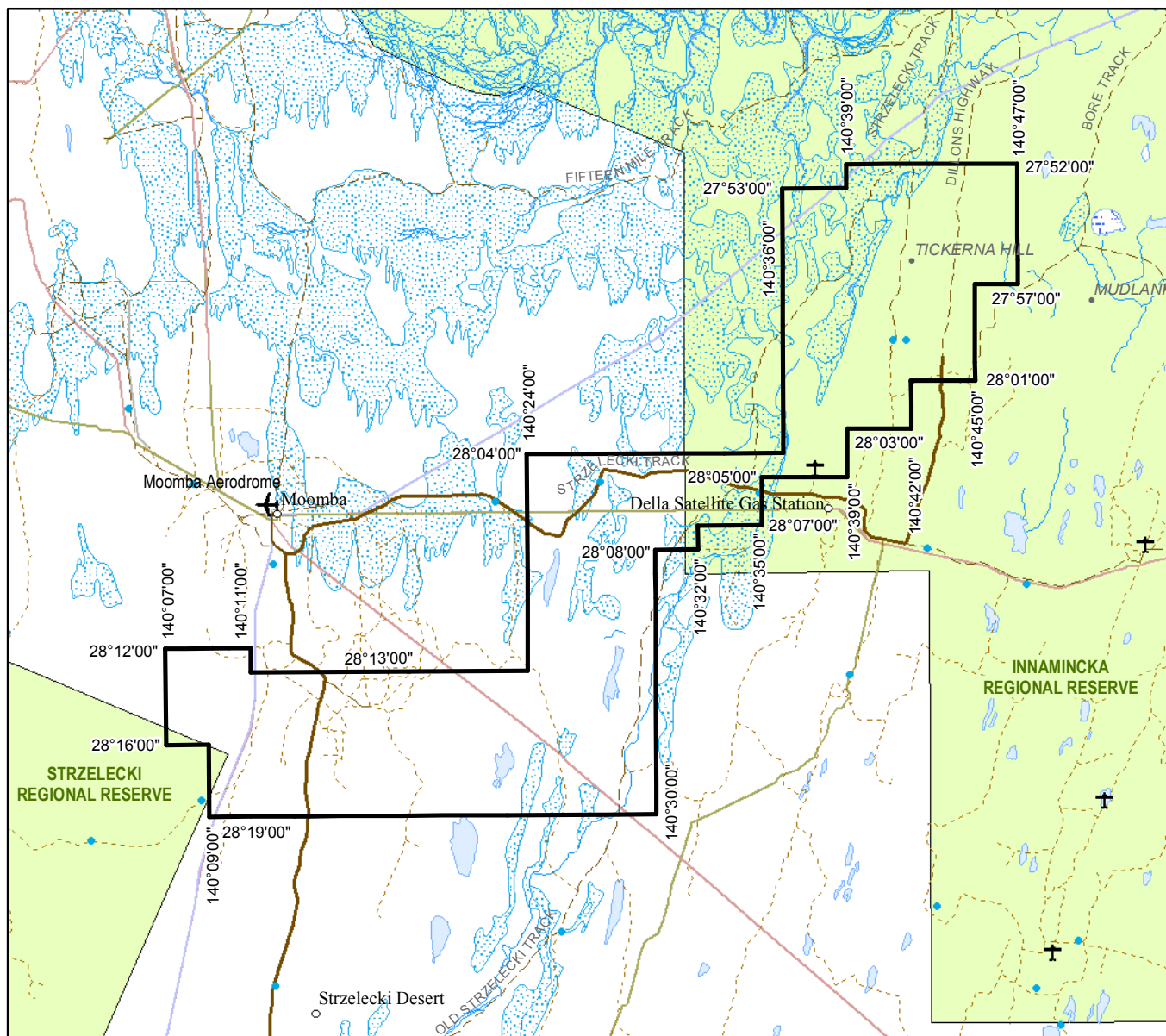
KERRY PARKER

.....
Name

DIRECTOR

.....
Position





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

THE PLAN HEREINBEFORE REFERRED TO

GEOHERMAL EXPLORATION LICENCE NO: 220



Government of South Australia
Primary Industries and Resources SA

SR 27/2/370

AREA: **949** sq km (approx)

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 220 and 221

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



ELINOR ALEXANDER
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Date: 15 March 2011

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

Petroleum and Geothermal Energy Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 220 and 221

I, ELINOR ALEXANDER, 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 Tom Koutsantonis, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 1 October 2009 vary the conditions of the above-mentioned licences, 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">Review of existing geological and geophysical data. (to be carried out within the area covered by GEL's 220 & 221)
Two	<ul style="list-style-type: none">Geological and geophysical studies. (to be carried within the area covered by GEL's 220 & 221)
Three	<ul style="list-style-type: none">100km Seismic reprocessing;Conduct 100 km² gravity survey (if required);Measurement of detailed geothermal gradients in relevant and accessible wells. (to be carried out within the area covered by GEL's 220 & 221)
Four	<ul style="list-style-type: none">Geological and geophysical studies. (to be carried within the area covered by GEL's 220 & 221)
Five	<ul style="list-style-type: none">Geological and geophysical studies. (to be carried within the area covered by GEL's 220 & 221)

Dated: 15 March 2011



ELINOR ALEXANDER
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 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 AND GEOTHERMAL ENERGY ACT 2000

*Suspension of Geothermal Exploration Licences—
GELs 220 and 221*

PURSUANT to section 90 of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licences have been suspended under the provisions of the Petroleum and Geothermal Energy Act 2000, for the period from and including 10 May 2010 to 9 November 2010, pursuant to delegated powers dated 1 October 2009.

The expiry date of Geothermal Exploration Licences GEL 220 and 221 is now determined to be 23 January 2012.

Dated 28 May 2010.

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

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 220 AND 221**

1. Suspension of licence from and including 10 May 2010 to 9 November 2010 is hereby entered on the public register.
2. The expiry date of GELs 220 and 221 is now determined to be 23 January 2012.



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 May 2010

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

Petroleum and Geothermal Energy Act 2000
S.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES
GELs 220 and 221**

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

1. suspend geothermal exploration licences GELs 220 and 221 for the period from and including 10 May 2010 to 9 November 2010.

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

The expiry date of GELs 220 and 221 is now determined to be 23 January 2012.

Dated: 28 May 2010



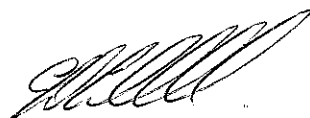
BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Petroleum 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 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
GEL 220 and GEL 221**

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: 11 September 2007

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

Petroleum Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GEL 220 and GEL 221

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 the above-mentioned geothermal exploration licence, 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">Review of existing geological and geophysical data. (to be carried out within the area covered by GEL's 220 & 221)
Two	<ul style="list-style-type: none">Geological and geophysical studies. (to be carried within the area covered by GEL's 220 & 221)
Three	<ul style="list-style-type: none">100km Seismic reprocessing;Conduct 100 km² gravity survey (if required);Measurement of detailed geothermal gradients in relevant and accessible wells; <p>(to be carried out within the area covered by GEL's 220 & 221)</p>
Four	<ul style="list-style-type: none">Conduct shallow pilot drilling and measure detailed geothermal gradients;Design and plan a demonstration heat exchange plant. <p>(to be carried out within the area covered by GEL's 220 & 221)</p>

Five	<ul style="list-style-type: none"> • Drill 1 deep well; • Measure detailed geothermal gradient (to be carried out within the area covered by GEL's 220 & 221)
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Dated: 11 September 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

PETROLEUM ACT 2000

*Grant of Geothermal Exploration Licences—
GEL 220 and GEL 221*

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have been granted with effect from and including 12 July 2006, 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	Licensees	Locality	Expiry
GEL 220	Osiris Energy Pty Ltd	Cooper Basin, South Australia	23 July 2011
GEL 221	Osiris Energy Pty Ltd	Cooper Basin, South Australia	23 July 2011

Description of Area—GEL 220

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

Commencing at a point being the intersection of latitude 27°52'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°47'00"E GDA94, south to latitude 27°57'00"S GDA94, west to longitude 140°45'00"E GDA94, south to latitude 28°01'00"S GDA94, west to longitude 140°42'00"E GDA94, south to latitude 28°03'00"S GDA94, west to longitude 140°39'00"E GDA94, south to latitude 28°05'00"S GDA94, west to longitude 140°35'00"E GDA94, south to latitude 28°07'00"S GDA94, west to longitude 140°32'00"E GDA94, south to latitude 28°08'00"S GDA94, west to longitude 140°30'00"E GDA94, south to latitude 28°09'00"S GDA94, west to longitude 140°24'00"E GDA94, north to latitude 28°04'00"S GDA94, east to longitude 140°36'00"E GDA94, north to latitude 27°53'00"S GDA94, east to longitude 140°39'00"E GDA94 and north to the point of commencement.

Area: 466 km² approximately.

Description of Area—GEL 221

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

Commencing at a point being the intersection of latitude 28°09'00"S GDA94 and longitude 140°24'00"E GDA94, thence east to longitude 140°30'00"E GDA94, south to latitude 28°19'00"S GDA94, west to longitude 140°09'00"E GDA94, north to latitude 28°16'00"S GDA94, west to longitude 140°07'00"E GDA94, north to latitude 28°12'00"S GDA94, east to longitude 140°11'00"E GDA94, south to latitude 28°13'00"S GDA94, east to longitude 140°24'00"E GDA94 and north to the point of commencement.

Area: 483 km² approximately.

Dated 24 July 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 LICENCES
GEL 220 and GEL 221**

1. These Licences granted on 24 July 2006 are hereby entered on the public register.
2. Interests in the licence are:-

Osiris Energy Pty Ltd	100%
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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**

Date: 24 July 2006

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


PETROLEUM ACT 2000

GEOHERMAL EXPLORATION LICENCE

GEL 220

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 for a period of five years and to expire on 23 July 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:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Review of existing geological and geophysical data. (to be carried within the area covered by GEL's 220 & 221)
Two	<ul style="list-style-type: none">• Measurement of detailed geothermal gradients in relevant and accessible water wells;• Conduct infill geophysical surveys (if required);• Geological and geophysical studies. (to be carried within the area covered by GEL's 220 & 221)
Three	<ul style="list-style-type: none">• Seismic reprocessing;• Geological and geophysical studies. (to be carried within the area covered by GEL's 220 & 221)

Four	<ul style="list-style-type: none"> • Conduct shallow pilot drilling and measure detailed geothermal gradients; • Design and plan a demonstration heat exchange plant. (to be carried within the area covered by GEL's 220 & 221)
Five	<ul style="list-style-type: none"> • Drill 1 deep well; • Measure detailed geothermal gradient. (to be carried within the area covered by GEL's 220 & 221)

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.

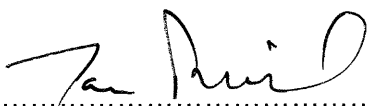
Date: 24 July2006



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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:.....15/5/06.....2006

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

.....IAN REID.....
.....
Name

.....DIRECTOR.....
.....
Position

.....OSIRIS ENERGY PTY LTD.....
.....
Company

.....
.....
Witness

.....RON PALMER.....
.....
Name

.....DIRECTOR.....
.....
Position

.....OSIRIS ENERGY PTY LTD.....
.....
Company

GEOTHERMAL EXPLORATION LICENCE

GEL 220

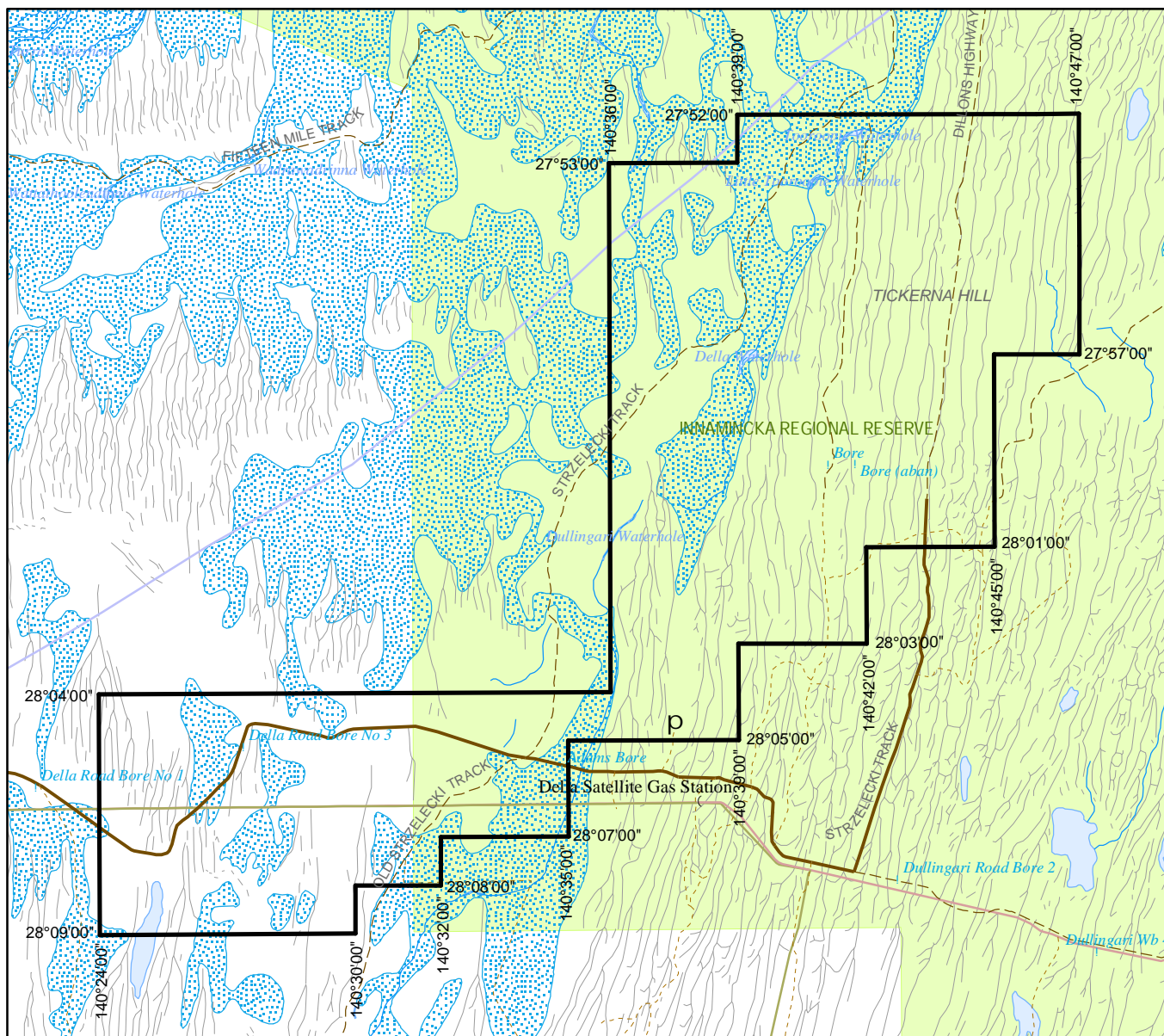
THE SCHEDULE

Description of Area

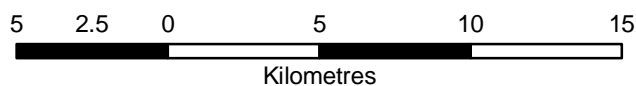
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 27°52'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°47'00"E GDA94, south to latitude 27°57'00"S GDA94, west to longitude 140°45'00"E GDA94, south to latitude 28°01'00"S GDA94, west to longitude 140°42'00"E GDA94, south to latitude 28°03'00"S GDA94, west to longitude 140°39'00"E GDA94, south to latitude 28°05'00"S GDA94, west to longitude 140°35'00"E GDA94, south to latitude 28°07'00"S GDA94, west to longitude 140°32'00"E GDA94, south to latitude 28°08'00"S GDA94, west to longitude 140°30'00"E GDA94, south to latitude 28°09'00"S GDA94, west to longitude 140°24'00"E GDA94, north to latitude 28°04'00"S GDA94, east to longitude 140°36'00"E GDA94, north to latitude 27°53'00"S GDA94, east to longitude 140°39'00"E GDA94, and north to point of commencement.

AREA: **466** 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: 220



Government of South Australia
Primary Industries and Resources SA

SR 27/2/370

AREA: 466 sq km (approx)