

1.	24 January 2007	Memorandum entering GEL 261 on the public register.
2.	24 January 2007	Geothermal Exploration Licence GEL 261
		Interests: Torrens Energy Limited 100%
3.	1 February 2007	Gazettal of Grant of GEL 261
4.	28 June 2007	Notation of receipt of security.
5.	10 September 2008	Memorandum entering notation of the following registrable dealing on the public register:
		Alliance Agreement dated 8 July 2008 between Torrens Energy Limited and AGL Energy Limited. Ref: SA 2008-21
6.	20 January 2009	Variation of licence.
7.	20 January 2009	Memorandum entering variation of licence on the public register.
8.	7 July 2010	Consolidation of licence area with GELs 226, 260, 262 and subsequent revocation of licence.
9.	7 July 2010	Memorandum entering consolidation of licence area and revocation of licence on the public register.

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 226, 260, 261 and 262

1. Consolidation of the adjacent licence areas of GELs 226, 260, 261 and 262, whereby the consolidated licence area is now designated as GEL 226 is hereby entered on the public register.

The total area of GEL 226 is now 1,712 square kilometres approximately.

2. Revocation of GELs 260, 261 and 262 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: 7 July 2010

Ref: 27/2/383
27/2/419
27/2/420
27/2/421

Petroleum and Geothermal Energy Act 2000

Consolidation of licence areas Geothermal Exploration Licences GELs 226, 260, 261 and 262

Revocation of licences Geothermal Exploration Licences GELs 260, 261 and 262

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 82 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. consolidate with effect from 7 JULY 2010, the adjacent areas of Geothermal Exploration Licences GELs 226, 260, 261 and 262 held by –

Torrens Energy Limited
ACN 118 065 704

The consolidated licence area shall be designated as:

Geothermal Exploration Licence GEL 226

DESCRIPTION OF CONSOLIDATED AREA

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

Commencing at a point being the intersection of longitude 138°30'00"E GDA94 and latitude 34°07'00"S GDA94, thence south to latitude 34°15'00"S GDA94, east to longitude 138°32'30"E GDA94, south to latitude 34°22'00"S GDA94, east to longitude 138°34'30"E GDA94, south to latitude 34°36'00"S GDA94, east to longitude 138°38'00"E GDA94, south to latitude 34°45'00"S GDA94, west to longitude 138°33'30"E GDA94, north to latitude 34°44'00"S GDA94, west to longitude 138°33'00"E GDA94, north to latitude 34°43'30"S GDA94, west to longitude 138°32'00"E GDA94, north to latitude 34°43'00"S GDA94, west to longitude 138°31'00"E GDA94, north to latitude 34°42'00"S GDA94, west to longitude 138°30'00"E GDA94, north to latitude 34°41'00"S GDA94, west to longitude 138°29'00"E GDA94, north to latitude 34°39'30"S GDA94, west to longitude 138°28'00"E GDA94, north to latitude 34°39'00"S GDA94, west to longitude 138°27'30"E GDA94, north to latitude 34°38'30"S GDA94, west to a line being High Water Mark (Highest Astronomical Tide), Gulf St Vincent, thence generally north-westerly along the said line to the southern boundary of Commonwealth Army Land, thence generally north-easterly, southerly and westerly along the boundary of the said Army Land to a line being High Water Mark (Highest Astronomical Tide), Gulf St Vincent, thence generally north-westerly along the said line to the boundary of Clinton Conservation Park, thence generally south-easterly and north-westerly along the boundary of the said Conservation Park to latitude 34°07'00"S GDA94 and east to the point of commencement, but excluding the southern portion of Clinton Conservation Park and all Commonwealth Army Land.

AREA: **1712** square kilometres approximately.

2. consequently revoke Geothermal Exploration Licences GELs 260, 261 and 262, with effect from 7 July 2010

As a consequence of the consolidation, the work program forming 'condition 1' of the consolidated GEL 226 comprises:

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Geological and geophysical review. <i>(Year 1 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261 and 262.)</i>
Two	<ul style="list-style-type: none">• Geological and geophysical review. <i>(Year 2 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261 and 262.)</i>
Three	<ul style="list-style-type: none">• Drill 3 fully cored narrow diameter holes up to a depth of 500m each and measure detailed geothermal gradients and thermal conductivities; and• Geological and geophysical review. <i>(Year 3 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261, 262, 425, 481, 482 and 483.)</i>
Four	<ul style="list-style-type: none">• Geological and geophysical review. <i>(Year 4 work program to be conducted anywhere within the boundaries of GELs 226 and 425.)</i>
Five	<ul style="list-style-type: none">• Drill test well to full depth (3,500 – 5,000m); and• Conduct production testing. <i>(Year 5 work program to be conducted anywhere within the boundaries of GELs 226 and 425.)</i>

Dated: 7 July 2010



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

The following signature evidences the consent of the licensee to the consolidation of GELs 226, 260, 261 and 262 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 **Torrens Energy Limited** by its authorised representative:

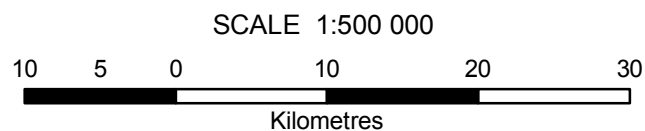
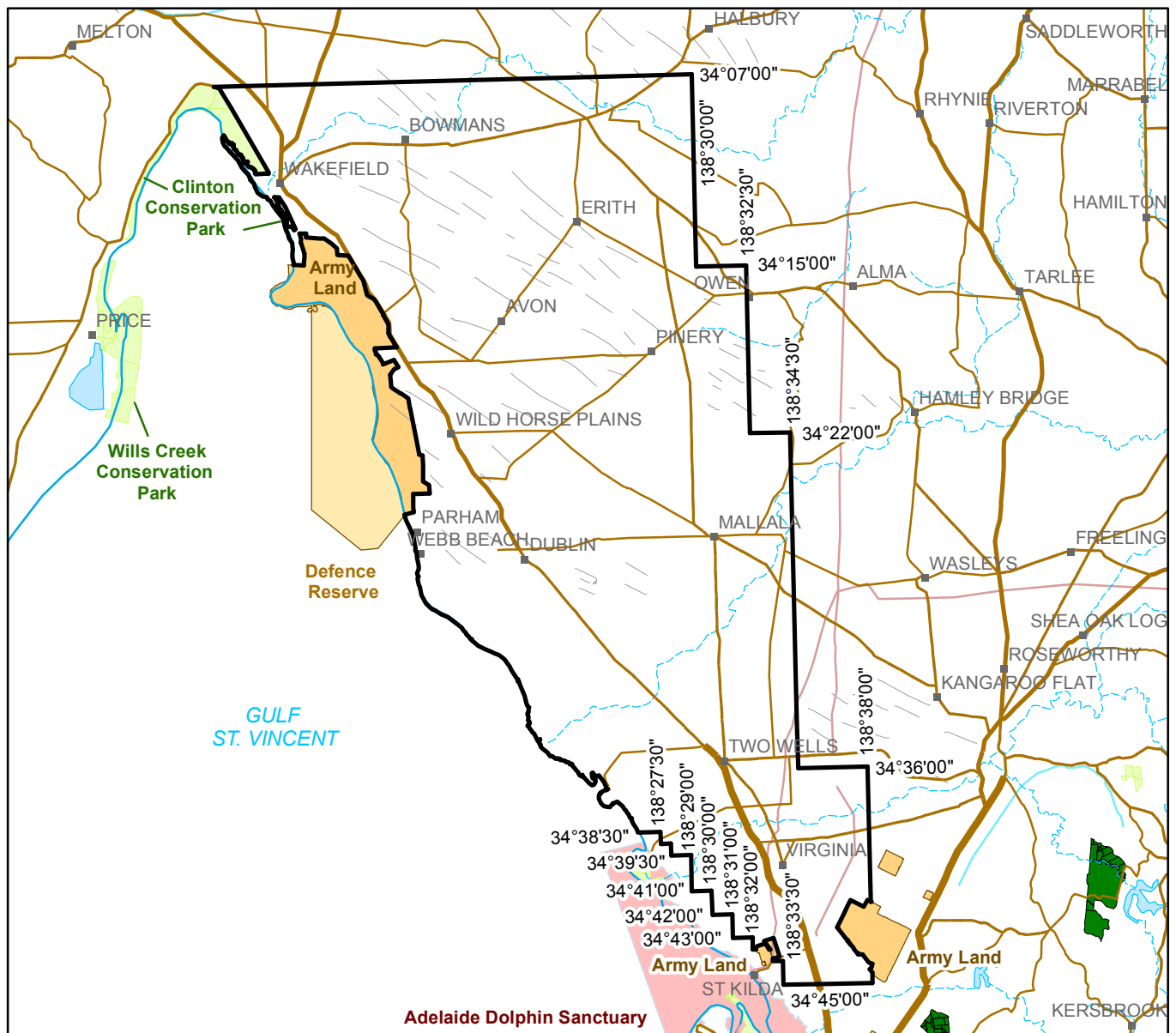
.....
23/6/2010
Date

.....

Authorised Representative

.....
JEROME RANDABEL
Name

.....
EXPLORATION MANAGER
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 Australian Geodetic Datum (AGD66),
the Geocentric Datum of Australia (GDA94) and the schedule.

THE PLAN HEREINBEFORE REFERRED TO

GEOHERMAL EXPLORATION LICENCE NO: 226



Government of South Australia
Primary Industries and Resources SA

SR 27/2/383

AREA: 1712 sq km (approx)

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 226, 260, 261 and 262**

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



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

Date: 20 January 2009

Ref: 27/2/383
27/2/419
27/2/420
27/2/421

Petroleum Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 226, 260, 261 and 262

I, MICHAEL MALAVAZOS, 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 Licences GEL 226, 260, 261 and 262 held by -

Torrens Energy Limited
ACN 118 065 704

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">Geological and geophysical review. <p><i>Year 1 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261 and 262.</i></p>
Two	<ul style="list-style-type: none">Geological and geophysical review. <p><i>Year 2 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261 and 262</i></p>
Three	<ul style="list-style-type: none">Drill 3 fully cored narrow diameter holes up to a depth of 500m each and measure detailed geothermal gradients and thermal conductivities; andGeological and geophysical review. <p><i>Year 3 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261, 262, 425, 481, 482 and 483</i></p>

Four	<ul style="list-style-type: none"> • Geological and geophysical review. <p><i>Year 4 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261, 262, 425, 481, 482 and 483.</i></p>
Five	<ul style="list-style-type: none"> • Drill test well to full depth (3,500 – 5,000m); and • Conduct production testing. <p><i>Year 5 work program to be conducted anywhere within the boundaries of GELs 226, 260, 261, 262, 425, 481, 482 and 483.</i></p>

Dated: 20 January 2009



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

Petroleum Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GEL 226, GEL 227, GEL 228, GEL 229, GEL 230, GEL 231,
GEL 232, GEL 233, GEL 234, GEL 235, GEL 260, GEL 261,
GEL 262, GEL 263, GEL 278, GEL 285, and GEL 293

SA 2008-21

Notation of registrable dealing as evidenced by Alliance Agreement dated 8 July 2008 between Torrens Energy Limited and AGL Energy Limited is hereby entered on the public register.



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

Date: 10 September 2008

27/2/383 - 27/2/392
27/2/419 - 27/2/422
27/2/442
27/2/451
27/2/460

Petroleum Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 260, 261,
262, 263, 278 and 285

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: 28 June 2007

Files:	27/2/383	27/2/384
	27/2/385	27/2/386
	27/2/387	27/2/388
	27/2/389	27/2/390
	27/2/391	27/2/392
	27/2/419	27/2/420
	27/2/421	27/2/422
	27/2/442	27/2/451

PETROLEUM ACT 2000

Grant of Geothermal Exploration Licences—GEL 260, GEL 261 and GEL 262

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have been granted with effect from and including 24 January 2007, 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	Date of Expiry	Reference
GEL 260	Torrens Energy Ltd	Adelaide area, South Australia	23 January 2012	27/2/419
GEL 261	Torrens Energy Ltd	Adelaide area, South Australia	23 January 2012	27/2/420
GEL 262	Torrens Energy Ltd	Adelaide area, South Australia	23 January 2012	27/2/421

Description of Area—GEL 260

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

Commencing at a point being the intersection of longitude 138°30'00"E GDA94 and latitude 34°07'00"S GDA94, thence south to latitude 34°15'00"S GDA94, west to the eastern boundary of Commonwealth Army Land, thence generally north-westerly, southerly and westerly along the boundary of the said Army Land to a line being High Water Mark (Highest Astronomical Tide), Gulf St Vincent, thence generally north-westerly along the said line to the boundary of Clinton Conservation Park, thence generally south-easterly and north-westerly along the boundary of the said Conservation Park to latitude 34°07'00"S GDA94 and east to the point of commencement but excluding southern portion of Clinton Conservation Park.

Area: 482 km² approximately.

Description of Area—GEL 261

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

Commencing at a point being the intersection of longitude 138°32'30"E GDA94 and latitude 34°15'00"S GDA94, thence south to latitude 34°22'00"S GDA94, east to longitude 138°34'30"E GDA94, south to latitude 34°33'50"S GDA94, west to longitude 138°33'05"E GDA94, north to latitude 34°28'30"S GDA94, west to longitude 138°30'25"E GDA94, north to latitude 34°24'35"S GDA94, west to longitude 138°27'55"E GDA94, north to latitude 34°19'30"S GDA94, west to longitude 138°25'35"E GDA94, north to latitude 34°17'15"S GDA94, west to longitude 138°15'25"E GDA94, south to latitude 34°19'40"S GDA94, east to longitude 138°17'25"E GDA94, south to latitude 34°22'15"S GDA94, east to longitude 138°19'00"E GDA94, south to latitude 34°26'55"S GDA94, east to longitude 138°20'35"E GDA94, south to latitude 34°31'15"S GDA94, east to longitude 138°22'35"E GDA94, south to latitude 34°32'30"S GDA94, east to longitude 138°24'10"E GDA94, south to latitude 34°33'50"S GDA94, west to a line being High Water Mark (Highest Astronomical Tide), Gulf St Vincent, thence generally north-westerly along the said line to the boundary of Commonwealth Army Land, thence generally north-westerly along the eastern boundary of the said Army Land to latitude 34°15'00"S GDA94 and east to the point of commencement.

Area: 440 km² approximately.

Description of Area—GEL 262

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

Commencing at a point being the intersection of longitude 138°34'30"E GDA94 and latitude 34°33'50"S GDA94, thence south to latitude 34°36'00"S GDA94, east to longitude 138°38'00"E GDA94, south to latitude 34°45'00"S GDA94, west to longitude 138°33'30"E GDA94, north to latitude 34°44'00"S GDA94, west to longitude 138°33'00"E GDA94, north to latitude 34°43'30"S GDA94, west to longitude 138°32'00"E GDA94, north to latitude 34°43'00"S GDA94, west to longitude 138°31'00"E GDA94, north to latitude 34°42'00"S GDA94, west to longitude 138°30'00"E GDA94, north to latitude 34°41'00"S GDA94, west to longitude 138°29'00"E GDA94, north to latitude 34°39'30"S GDA94, west to longitude 138°28'00"E GDA94, north to latitude 34°39'00"S GDA94, west to longitude 138°27'30"E GDA94, north to latitude 34°38'30"S GDA94, west to a line being High Water Mark (Highest Astronomical Tide), Gulf St Vincent, thence generally north-westerly along the said line to latitude 34°33'50"S GDA94 and east to the point of commencement but excluding all Commonwealth Army Land.

Area: 296 km² approximately.

Dated 24 January 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

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 260, 261 and 262**

1. These Licences granted on 24 January 2007 are hereby entered on the public register.
2. Interests in the licences are:-

Torrens Energy Limited 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: 24 January 2007

Ref: 27/2/419
27/2/420
27/2/421

PETROLEUM ACT 2000

GEOHERMAL EXPLORATION LICENCE

GEL 261

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:

Torrens Energy Limited ACN 118 065 704

(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 January 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:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Geological and geophysical review. (to be conducted anywhere in the area covered by GELs 226, 260, 261 & 262)
Two	<ul style="list-style-type: none">• Geological and geophysical review. (to be conducted anywhere in the area covered by GELs 26, 260, 261 & 262)
Three	<ul style="list-style-type: none">• Complete and case 3 fully cored heat flow holes to a combined depth of 1500 metres.• Geological and geophysical review. (to be conducted anywhere in the area covered by GELs 226, 260, 261 & 262)
Four	<ul style="list-style-type: none">• Geological and geophysical review. (to be conducted anywhere in the area covered by GELs 226, 260, 261 & 262)
Five	<ul style="list-style-type: none">• Drill 1 test well to a depth of 4000 to 5000 metres.• Production testing. (to be conducted anywhere in the area covered by GELs 226, 260, 261 & 262)

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 Jan 2007



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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: 17/11.....2007

Chris Matthews
.....
Authorised Representative

Chris Matthews
.....
Name

CEO
.....
Position

Torrens Energy Ltd
.....
Company

[Signature]
.....
Witness

MICHELE HAYNES
.....
Name

.....
Position

.....
Company

GEOTHERMAL EXPLORATION LICENCE

GEL 261

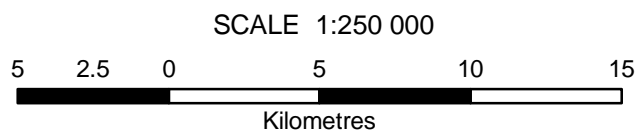
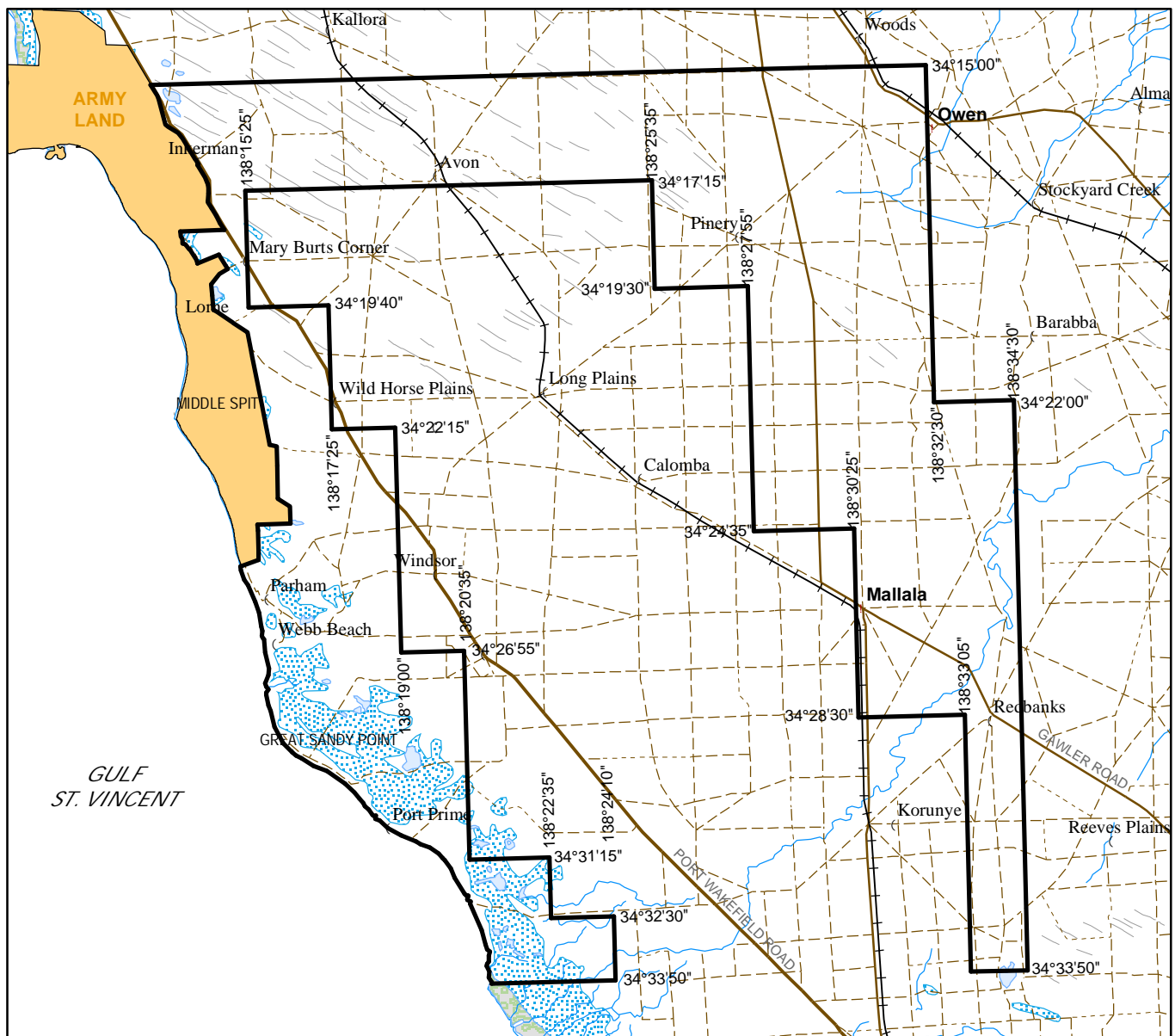
THE SCHEDULE

Description of Area

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

Commencing at a point being the intersection of longitude 138°32'30"E GDA94 and latitude 34°15'00"S GDA94, thence south to latitude 34°22'00"S GDA94, east to longitude 138°34'30"E GDA94, south to latitude 34°33'50"S GDA94, west to longitude 138°33'05"E GDA94, north to latitude 34°28'30"S GDA94, west to longitude 138°30'25"E GDA94, north to latitude 34°24'35"S GDA94, west to longitude 138°27'55"E GDA94, north to latitude 34°19'30"S GDA94, west to longitude 138°25'35"E GDA94, north to latitude 34°17'15"S GDA94, west to longitude 138°15'25"E GDA94, south to latitude 34°19'40"S GDA94, east to longitude 138°17'25"E GDA94, south to latitude 34°22'15"S GDA94, east to longitude 138°19'00"E GDA94, south to latitude 34°26'55"S GDA94, east to longitude 138°20'35"E GDA94, south to latitude 34°31'15"S GDA94, east to longitude 138°22'35"E GDA94, south to latitude 34°32'30"S GDA94, east to longitude 138°24'10"E GDA94, south to latitude 34°33'50"S GDA94, west to a line being High Water Mark (Highest Astronomical Tide), Gulf St. Vincent, thence generally northwesterly along the said line to the boundary of Commonwealth Army Land, thence generally northwesterly along the eastern boundary of the said Army Land to latitude 34°15'00"S GDA94 and east to point of commencement.

AREA: **440** 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: 261



Government of South Australia
Primary Industries and Resources SA

SR 27/2/420

AREA: 440 sq km (approx)