

**INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR
GEOTHERMAL EXPLORATION LICENCE GEL 498**

1. 27 May 2009 Geothermal Exploration Licence GEL 498 granted

Interests:

Geothermal Resources Limited 100%

Expiry Date: 26 May 2014
2. 27 May 2009 Memorandum entering the grant of GEL 498 on the public register.
3. 27 May 2009 Memorandum entering notation of security arrangements on the public register.
4. 4 June 2009 Gazettal of grant of licence.
5. 5 January 2010 Memorandum entering notation of revision to security arrangements is entered on the public register.
6. 1 July 2010 Variation of licence conditions.
7. 1 July 2010 Memorandum entering variation of licence conditions on the public register.
8. 1 July 2010 Suspension of licence for the period from and including 27 May 2010 to 31 October 2010.

GEL 498 is now due to expire 31 October 2014.
9. 1 July 2010 Memorandum entering suspension of licence on the public register.
10. 8 July 2010 Gazettal of suspension of licence.
11. 30 December 2011 Suspension of licence for the period from and including 01 November 2011 to 31 October 2012.

GEL 498 is now due to expire 31 October 2015.
12. 30 December 2011 Memorandum entering suspension of licence on the public register.
13. 5 January 2012 Gazettal of suspension of licence.

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCE
GEL 498

1. Suspension of licence from and including 1 November 2011 to 31 October 2012 is hereby entered on the public register.
2. The expiry date of GEL 498 is now determined to be 31 October 2015.



ELINOR ALEXANDER
A/Executive Director
Energy Resources Division
Department for Manufacturing, Innovation, Trade, Resources and Energy
Delegate of the Minister for Mineral Resources and Energy

Date: 30 December 2011

Ref: 27/2/560


Petroleum and Geothermal Energy Act 2000
S.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCE
GEL 498**

I, ELINOR ALEXANDER, Acting 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 -

- (a) suspend geothermal exploration licence GEL 498 for the period from and including 1 November 2011 to 31 October 2012.
1. No regulated activities are permitted to be carried out during the period of the suspension.
 2. The expiry date of GEL 498 is now determined to be 31 October 2015.

Dated: 30 December 2011



ELINOR ALEXANDER
A/Executive Director
Energy Resources Division
Department for Manufacturing, Innovation, Trade, Resources and Energy
Delegate of the Minister for Mineral Resources and Energy

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

Suspension of Geothermal Exploration Licence—GEL 498

PURSUANT to section 90 of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licence has been suspended under the provisions of the Petroleum and Geothermal Energy Act 2000, from and including 27 May 2010 until 31 October 2010, pursuant to delegated powers dated 1 October 2009.

The expiry date of GEL 498 is now determined to be 31 October 2014.

Dated 1 July 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 LICENCE
GEL 498**

1. Suspension of licence from and including 27 May 2010 to 31 October 2010 is hereby entered on the public register.
2. The expiry date of GEL 498 is now determined to be 31 October 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: 1 July 2010

Ref: 27/2/560

Petroleum and Geothermal Energy Act 2000
S.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCE
GEL 498**

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 licence GEL 498 for the period from and including 27 May 2010 to 31 October 2010.

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

The expiry date of GEL 498 is now determined to be 31 October 2014.

Dated: 1 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

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCE
GEL 498

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: 1 July 2010

Ref: 27/2/560

Petroleum and Geothermal Energy Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 498

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 and Geothermal Energy Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 1 October 2009 vary the conditions of the above-mentioned licence, held by -

Geothermal Resources Limited
ACN 115 281 144

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">• Geological and geophysical studies.
Two	<ul style="list-style-type: none">• Geological and geophysical studies.
Three	<ul style="list-style-type: none">• Geological and geophysical studies
Four	<ul style="list-style-type: none">• Geological and geophysical studies
Five	<ul style="list-style-type: none">• Define target well location for 'proof of concept' well.

”

Dated: 1 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

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 446, 491, 492, 493 and 498

1. Notation of receipt of security in the form of a Bank Guarantee dated 25 November 2009 is hereby entered on the public register
2. Security is held to cover any single event occurring in any licence held and operated by Geothermal Resources Ltd in South Australia.
3. Notation of the discharge to Geothermal Resources Limited of Bank Guarantee dated 26 September 2006 and held as security in respect of geothermal exploration licences 446, 491, 492, 493 and 498 is entered on the public register.



J. S. ZABROWARNY
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development

Date: 5 January 2010

File: 27/2/542
27/2/557
27/2/560

PETROLEUM ACT 2000

Grant of Geothermal Exploration Licence—GEL 498

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 498	Geothermal Resources Limited	Otway Basin	26.5.2014

Description of Area—GEL 498

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

Area A

Commencing at a point being the intersection of latitude 37°02'00"S GDA94 and longitude 140°10'00"E GDA94, thence south to latitude 37°04'00"S GDA94, west to longitude 139°47'00"E GDA94, south to a line being High Water Mark (highest astronomical tide), Guitchen Bay, thence generally northwesterly and northerly along the said line to latitude 37°02'00"S GDA94 and east to the point of commencement but excluding Guitchen Bay Conservation Park.

Area B

Commencing at a point being the intersection of latitude 37°10'00"S GDA94 and longitude 139°47'00"E GDA94, thence west to longitude 139°46'00"E GDA94, south to the northern boundary of Little Dip Conservation Park, thence generally westerly along the boundary of the said Conservation Park to a line being High Water Mark (highest astronomical tide), Cape Lannes, thence generally northerly and easterly along the said line to longitude 139°47'00"E GDA94 and south to the point of commencement.

Area C

Commencing at a point being the intersection of latitude 37°13'00"S GDA94 and longitude 139°54'00"E GDA94, thence south to latitude 37°23'00"S GDA94, east to longitude 139°57'00"E GDA94, south to a line being High Water Mark (highest astronomical tide), Southern Ocean, thence generally northwesterly along the said line to latitude 37°13'00"S GDA94 and east to the point of commencement but excluding Little Dip Conservation Park, Lake Robe Game Reserve and Beachport Conservation Park.

Area: 258 km² approximately.

Dated 27 May 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 498**

1. This Licence granted with effect from and including 27 May 2009 is hereby entered on the public register.

2. Interests in the licence are:-

Geothermal Resources Limited	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: 27 May 2009

Ref: 27/2/560

PETROLEUM ACT 2000

GEOHERMAL EXPLORATION LICENCE

GEL 498

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:

Geothermal Resources Limited
ACN 115 281 144

(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 *26 May 2014* but carrying the right of renewal under the *Petroleum Act 2000*.
BAG

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 available geological, geophysical and drilling data for area.
Two	<ul style="list-style-type: none">• Interpretation of data to determine optimum drill site locations
Three	<ul style="list-style-type: none">• Drill one shallow drill hole to at least 250m depth; and• Temperature logging
Four	<ul style="list-style-type: none">• Drill one shallow drill hole, 200 – 500m in depth; and• Temperature logging
Five	<ul style="list-style-type: none">• Drill one deep drill hole to at least 1,000m depth.

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: 27 May 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: 9th April 2009


.....
Authorised Representative

Chris Giles
.....
Name

Technical Director
.....
Position

Geothermal Resources Ltd.
.....
Company

GEOTHERMAL EXPLORATION LICENCE

GEL 498

THE SCHEDULE

Description of Area

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

AREA A

Commencing at a point being the intersection of latitude 37°02'00"S GDA94 and longitude 140°10'00"E GDA94, thence south to latitude 37°04'00"S GDA94, west to longitude 139°47'00"E GDA94, south to a line being High Water Mark (highest astronomical tide), Guitchen Bay, thence generally northwesterly and northerly along the said line to latitude 37°02'00"S GDA94 and east to the point of commencement but excluding Guitchen Bay Conservation Park.

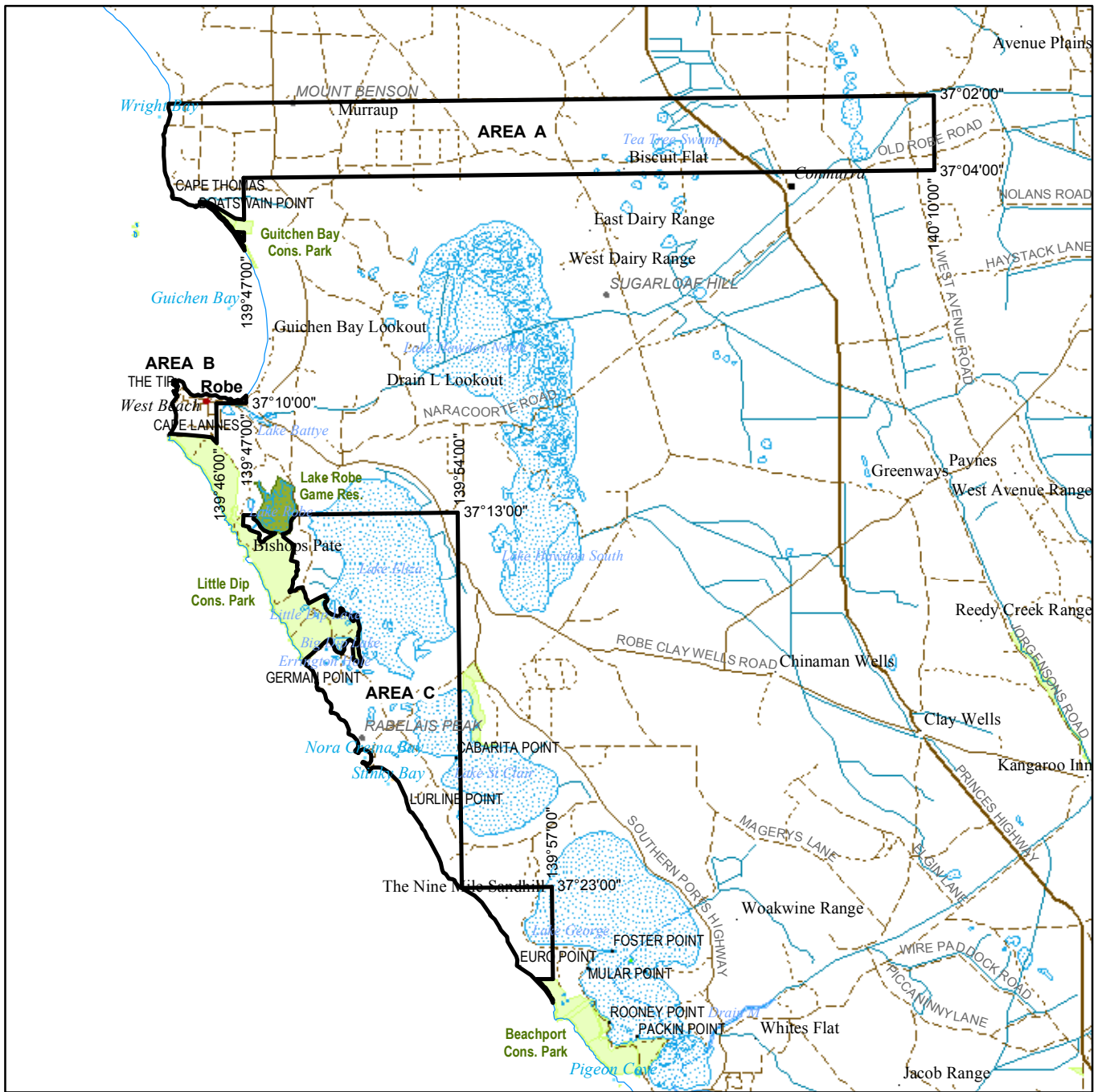
AREA B

Commencing at a point being the intersection of latitude 37°10'00"S GDA94 and longitude 139°47'00"E GDA94, thence west to longitude 139°46'00"E GDA94, south to the northern boundary of Little Dip Conservation Park, thence generally westerly along the boundary of the said Conservation Park to a line being High Water Mark (highest astronomical tide), Cape Lannes, thence generally northerly and easterly along the said line to longitude 139°47'00"E GDA94 and south to the point of commencement.

AREA C

Commencing at a point being the intersection of latitude 37°13'00"S GDA94 and longitude 139°54'00"E GDA94, thence south to latitude 37°23'00"S GDA94, east to longitude 139°57'00"E GDA94, south to a line being High Water Mark (highest astronomical tide), Southern Ocean, thence generally northwesterly along the said line to latitude 37°13'00"S GDA94 and east to the point of commencement but excluding Little Dip Conservation Park, Lake Robe Game Reserve and Beachport Conservation Park.

AREA: **258** square kilometres approximately



SCALE 1:300 000



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: 498