

Petroleum and Geothermal Energy Act 2000

S.115

S.117

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES

**GELs 297, 300, 301, 302, 462, 463, 465, 466, 467,
468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 478 and 480**

1. Discharge of Security is hereby entered on the public and commercial registers.



**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: 23 September 2010

Ref: 27/2/464
27/2/467
27/2/468
27/2/469
27/2/549

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

*Surrender of Geothermal Exploration Licences—
GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470,
471, 472, 473, 474, 475, 476, 477, 478, 479 and 480*

NOTICE is hereby given that I, have accepted surrender of the abovementioned Geothermal Exploration Licences, under the provisions of the Petroleum and Geothermal Energy Act 2000 with effect from 2 August 2010, pursuant to delegated powers dated 1 October 2009.

Dated 20 August 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 297, 300, 301, 302, 462, 463, 465, 466, 467, 468,
469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480

1. Surrender of the abovementioned Geothermal Exploration Licences, with effect from 2 August 2010 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 August 2010

Ref: 27/2/464 27/2/469
27/2/467 27/2/549
27/2/468

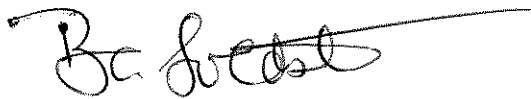
Petroleum and Geothermal Energy Act 2000

SURRENDER OF GEOTHERMAL EXPLORATION LICENCES GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480

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 section 89(2) 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 –

- a) hereby accept the surrender of Geothermal Exploration Licences GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480 held in the name of Inerus Resources Limited with effect from 2 August 2010.

Dated: 20 August 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

Grant of Geothermal Exploration Licences—GELs 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480

NOTICE is hereby given that the abovementioned Geothermal Exploration Licences have been granted with effect from 12 August 2009, 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	Date of Expiry	Reference
GEL 462	Inferus Resources Pty Ltd	Arrowie Basin, South Australia	11 August 2014	27/2/549
GEL 463				
GEL 465				
GEL 466				
GEL 467				
GEL 468				
GEL 469				
GEL 470				
GEL 471				
GEL 472				
GEL 473				
GEL 474				
GEL 475				
GEL 476				
GEL 477				
GEL 478				
GEL 479				
GEL 480				

Description of Area—GEL 462

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

Commencing at a point being the intersection of latitude 30°37'14"S GDA94 and longitude 137°12'24"E GDA94, thence east to longitude 137°19'00"E GDA94, south to latitude 30°41'30"S GDA94, east to longitude 137°27'00"E GDA94, south to latitude 30°46'00"S GDA94, west to longitude 136°58'00"E GDA94, north to latitude 30°41'30"S GDA94, east to longitude 137°12'24"E GDA94 and north to the point of commencement.

Area: 468 km² approximately.

Description of Area—GEL 463

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

Commencing at a point being the intersection of latitude 30°46'00"S GDA94 and longitude 136°58'00"E GDA94, thence east to longitude 137°27'00"E GDA94, south to latitude 30°51'30"S GDA94, west to longitude 136°58'00"E GDA94 and north to the point of commencement.

Area: 470 km² approximately.

Description of Area—GEL 465

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

Commencing at a point being the intersection of latitude 30°51'30"S GDA94 and longitude 136°58'00"E GDA94, thence east to longitude 137°27'00"E GDA94, south to latitude 30°52'30"S GDA94, east to longitude 137°32'00"E GDA94, south to latitude 30°56'00"S GDA94, west to longitude 136°56'00"E GDA94, north to latitude 30°53'00"S GDA94, east to longitude 136°58'00"E GDA94 and north to the point of commencement.

Area: 454 km² approximately.

Description of Area—GEL 466

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

Commencing at a point being the intersection of latitude 30°56'00"S GDA94 and longitude 136°56'00"E GDA94, thence east to longitude 137°06'30"E GDA94, south to latitude 31°07'00"S GDA94, west to longitude 136°49'00"E GDA94, north to latitude 31°00'00"S GDA94, east to longitude 136°56'00"E GDA94 and north to the point of commencement.

Area: 484 km² approximately.

Description of Area—GEL 467

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

Commencing at a point being the intersection of latitude 30°56'00"S GDA94 and longitude 137°06'30"E GDA94, thence east to longitude 137°20'30"E GDA94, south to latitude 31°07'00"S GDA94, west to longitude 137°06'30"E GDA94 and north to the point of commencement.

Area: 453 km² approximately.

Description of Area—GEL 468

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

Commencing at a point being the intersection of latitude 30°56'00"S GDA94 and longitude 137°20'30"E GDA94, thence east to longitude 137°32'00"E GDA94, south to latitude 30°58'30"S GDA94, east to longitude 137°36'00"E GDA94, south to latitude 31°04'55"S GDA94, west to longitude 137°20'30"E GDA94 and north to the point of commencement.

Area: 377 km² approximately.

Description of Area—GEL 469

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

Commencing at a point being the intersection of latitude 31°07'00"S GDA94 and longitude 136°49'00"E GDA94, thence east to longitude 137°20'30"E GDA94, south to latitude 31°12'00"S GDA94, west to longitude 136°49'00"E GDA94 and north to the point of commencement but excluding the Woomera Commonwealth Land.

Area: 441 km² approximately.

Description of Area—GEL 470

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

Commencing at a point being the intersection of latitude 31°12'00"S GDA94 and longitude 136°49'00"E GDA94, thence east to longitude 137°20'30"E GDA94, south to latitude 31°17'00"S GDA94, west to longitude 136°49'00"E GDA94 and north to the point of commencement but excluding the Woomera Commonwealth Land.

Area: 457 km² approximately.

Description of Area—GEL 471

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

Commencing at a point being the intersection of latitude 31°17'00"S GDA94 and longitude 136°49'00"E GDA94, thence east to longitude 137°20'30"E GDA94, south to latitude 31°22'00"S GDA94, west to longitude 136°49'00"E GDA94 and north to the point of commencement.

Area: 462 km² approximately.

Description of Area—GEL 472

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

Commencing at a point being the intersection of latitude 31°22'00"S GDA94 and longitude 136°57'30"E GDA94, thence east to longitude 137°20'30"E GDA94, south to latitude 31°29'00"S GDA94, west to longitude 136°57'30"E GDA94 and north to the point of commencement.

Area: 472 km² approximately.

Description of Area—GEL 473

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

Commencing at a point being the intersection of latitude 31°27'00"S GDA94 and longitude 137°20'30"E GDA94, thence east to longitude 137°23'00"E GDA94, south to latitude 31°34'00"S GDA94, east to longitude 137°27'00"E GDA94, south to latitude 31°36'00"S GDA94, west to longitude 137°00'30"E GDA94, north to latitude 31°29'00"S GDA94, east to longitude 137°20'30"E GDA94 and north to the point of commencement.

Area: 499 km² approximately.

Description of Area—GEL 474

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

Commencing at a point being the intersection of latitude 31°36'00"S GDA94 and longitude 137°03'30"E GDA94, thence east to longitude 137°28'00"E GDA94, south to latitude 31°37'00"S GDA94, east to longitude 137°32'00"E GDA94, south to latitude 31°39'00"S GDA94, east to longitude 137°35'00"E GDA94, south to latitude 31°41'00"S GDA94, west to longitude 137°03'30"E GDA94 and north to the point of commencement.

Area: 422 km² approximately.

Description of Area—GEL 475

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

Commencing at a point being the intersection of latitude 31°41'00"S GDA94 and longitude 137°03'30"E GDA94, thence east to longitude 137°35'00"E GDA94, south to latitude 31°43'55"S GDA94, east to longitude 137°36'00"E GDA94, south to latitude 31°46'00"S GDA94, west to longitude 137°03'30"E GDA94 and north to the point of commencement.

Area: 466 km² approximately.

Description of Area—GEL 476

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

Commencing at a point being the intersection of latitude 31°46'00"S GDA94 and longitude 137°16'00"E GDA94, thence east to longitude 137°36'00"E GDA94, south to latitude 31°54'00"S GDA94, west to longitude 137°16'00"E GDA94 and north to the point of commencement.

Area: 467 km² approximately.

Description of Area—GEL 477

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

Commencing at a point being the intersection of latitude 31°54'00"S GDA94 and longitude 137°19'00"E GDA94, thence east to longitude 137°36'00"E GDA94, south to latitude 31°55'05"S GDA94, east to longitude 137°36'05"E GDA94, south to latitude 32°04'00"S GDA94, west to longitude 137°19'00"E GDA94 and north to the point of commencement.

Area: 497 km² approximately.

Description of Area—GEL 478

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

Commencing at a point being the intersection of latitude 32°04'00"S GDA94 and longitude 137°19'00"E GDA94, thence east to longitude 137°36'05"E GDA94, south to latitude 32°13'00"S GDA94, west to longitude 137°19'00"E GDA94 and north to the point of commencement.

Area: 447 km² approximately.

Description of Area—GEL 479

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

Commencing at a point being the intersection of latitude 32°12'00"S GDA94 and longitude 137°41'00"E GDA94, thence east to longitude 137°45'00"E GDA94, south to latitude 32°13'05"S GDA94, west to longitude 137°44'08"E GDA94, south to latitude 32°22'00"S GDA94, west to longitude 137°26'00"E GDA94, north to latitude 32°13'00"S GDA94, east to longitude 137°41'00"E GDA94 and north to the point of commencement.

Area: 486 km² approximately.

Description of Area—GEL 480

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

Commencing at a point being the intersection of latitude 31°18'30"S GDA94 and longitude 137°36'05"E GDA94, thence east to longitude 137°41'00"E GDA94, south to latitude 31°32'00"S GDA94, west to longitude 137°38'00"E GDA94, north to latitude 31°31'00"S GDA94, west to longitude 137°36'00"E GDA94, north to latitude 31°27'00"S GDA94, east to longitude 137°36'05"E GDA94 and north to the point of commencement.

Area: 190 km² approximately.

Dated 1 July 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 LICENCES
GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471,
472, 473, 474, 475, 476, 477, 478, 479 and 480**

1. Geothermal Exploration Licences GEL 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480 granted with effect from and including 12 August 2009 are hereby entered on the public register.
2. Interests in the licences are:-

Inferus Resources Pty Ltd 100%
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: 1 July 2009

Ref: 27/2/464
27/2/467
27/2/468
27/2/469
27/2/549

PETROLEUM ACT 2000

GEOTHERMAL EXPLORATION LICENCE

GEL 465

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:

Inferus Resources Pty Ltd
ACN 119 368 160

(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 commencing on 12 August 2009 and to expire on 11 August 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">• Geological and Geophysical review;• Temperature probing of historical mineral drill holes;• Thermal conductivity measurements of selected holes. <p><i>(to be conducted anywhere within the area covered by GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480)</i></p>
Two	<ul style="list-style-type: none">• Modelling and interpretation of data;• 100km 2D seismic;• Geological and geophysical review. <p><i>(to be conducted anywhere within the area covered by GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480)</i></p>

Three	<ul style="list-style-type: none"> • Complete and case 5 fully cored heat flow holes to a depth of 400 – 500m; • Geological and geophysical review. <p><i>(to be conducted anywhere within the area covered by GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480)</i></p>
Four	<ul style="list-style-type: none"> • Temperature probing of core heat flow holes; • Thermal conductivity measurements of core; • Drill 1 well to a depth of 3,000 – 4,000 metres; • Geological and geophysical review. <p><i>(to be conducted anywhere within the area covered by GELs 297, 300, 301, 302, 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480)</i></p>
Five	<ul style="list-style-type: none"> • Drill 1 well to a depth of 3,000 – 4,000 metres <p><i>(to be conducted anywhere within the area covered by GELs 462, 463, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479 and 480)</i></p>

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: 1 July 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: 26 June 2009



Authorised Representative

Stephen Biggins

Name

Managing Director

Position

Inferos Resources PL

Company

GEOTHERMAL EXPLORATION LICENCE

GEL 465

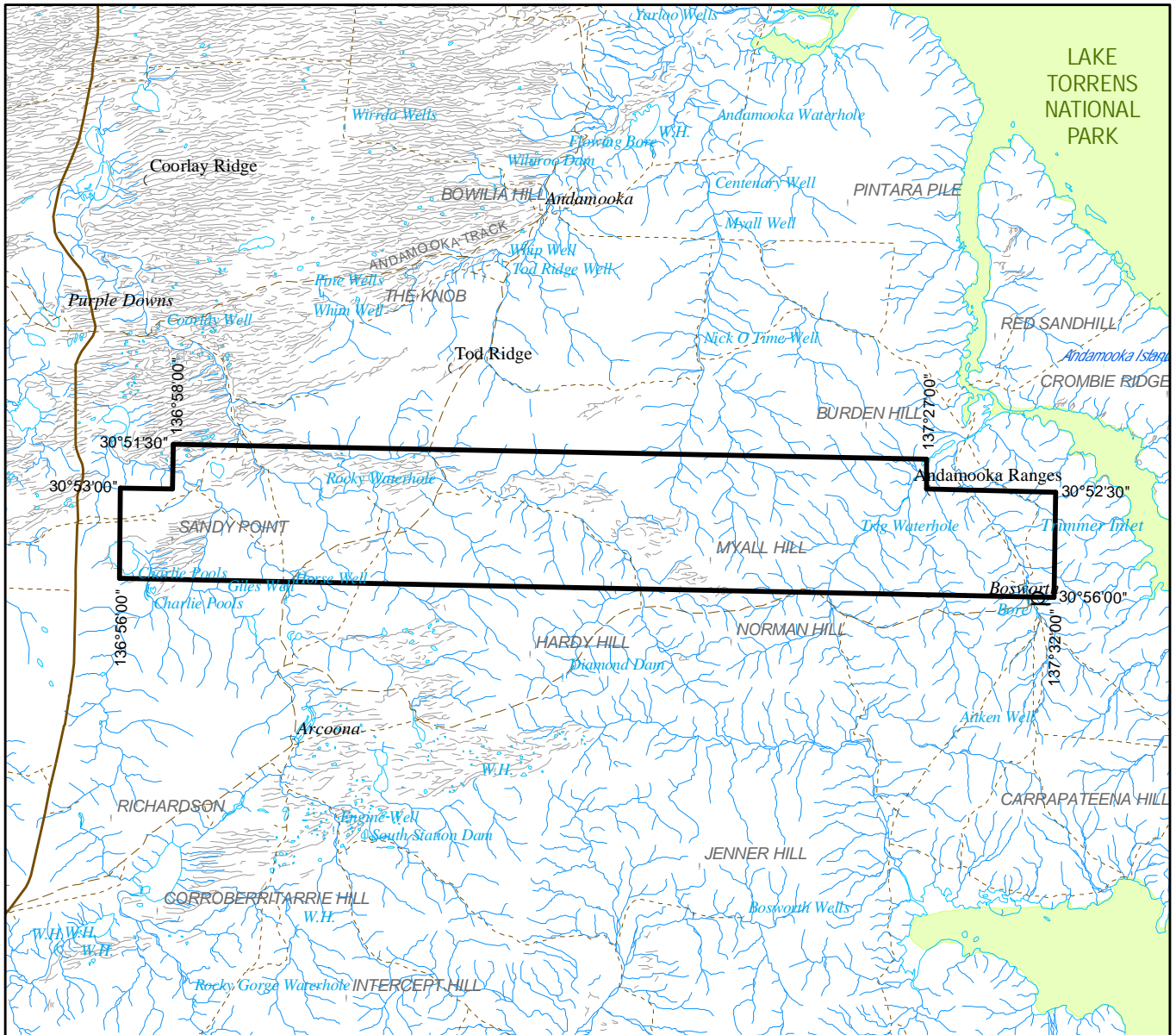
THE SCHEDULE

Description of Area

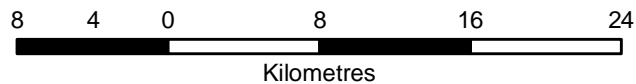
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 30°51'30"S GDA94 and longitude 136°58'00"E GDA94, thence east to longitude 137°27'00"E GDA94, south to latitude 30°52'30"S GDA94, east to longitude 137°32'00"E GDA94, south to latitude 30°56'00"S GDA94, west to longitude 136°56'00"E GDA94, north to latitude 30°53'00"S GDA94, east to longitude 136°58'00"E GDA94, and north to the point of commencement.

AREA: **454** 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

GEOHERMAL EXPLORATION LICENCE NO: 465



Government of South Australia
Primary Industries and Resources SA

SR 27/2/549c

AREA: 454 sq km (approx)