INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR GEOTHERMAL EXPLORATION LICENCE GEL 161

1.	2 June 2004	Memorandum entering GEL 161 on the public register.
2.	2 June 2004	Geothermal Exploration Licence GEL 161 Interests: Perilya Limited 50% Green Rock Energy Pty Ltd 50%
3.	10 June 2004	Gazettal of Grant of GEL 161
4.	27 June 2005	Memorandum entering notation of the following dealing on the public register: • Deed of Assignment and Assumption dated 17 December 2004 between Perilya Limited, Perilya Geothermal Energy Pty Ltd and Green Rock Energy Pty Ltd Ref: SA 2005-17 Interests: Perilya Geothermal Energy Pty Ltd 50% Green Rock Energy Pty Ltd 50%
5.	22 September 2005	Memorandum of notation of receipt of security.
6.	16 December 2005	Notation of change of Company names: From: Perilya Geothermal Energy Pty Ltd To: Green Rock Geothermal Pty Ltd From: Green Rock Energy Pty Ltd To: Green Heat Resources Pty Ltd
7.	30 May 2007	Memorandum entering variation on the public register.
8.	1 April 2009	Memorandum entering notation of extension of time to 30 April 2009 by which the licensee must apply for renewal of licence.
9.	27 April 2009	Suspension of licence from and including 30 April 2009 to 31 July 2009. New expiry date of GEL 161 is now 2 September 2009.
10.	27 September 2009	Memorandum entering suspension of licence on the public register.

11.	30 April 2009	Gazettal of suspension of licence.
12.	26 June 2009	Memorandum entering notation of extension of time to 2 September 2009 by which the licensee must apply for the renewal of licence.
13.	25 August 2009	Suspension of licence from and including 1 August 2009 to 31 December 2009. The expiry date of GEL 161 is now 2 February 2010.
14.	25 August 2009	Memorandum entering suspension of licence on the public register.
15.	27 August 2009	Gazettal of suspension of licence.
16.	15 December 2009	Variation of Licence Conditions.
17.	15 December 2009	Memorandum entering variation on public register.
18.	21 January 2010	Consolidation of Geothermal Exploration Licence areas GELs 128, 129, 161, 162 and 163 and revocation of GELs 129, 161, 162 and 163.
19.	21 January 2010	Memorandum entering consolidation and revocations on public registers

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162 and 163

1. Consolidation of the adjacent licence areas of GELs 128, 129, 161, 162 and 163 whereby the consolidated licence area is now designated as GEL 128, is hereby entered on the public register.

   The total area of GEL 128 is now 2197 square kilometres approximately.

2. Revocation of GELs 129, 161, 162 and 163 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: 21 January 2010

Ref: 27/2/230
27/2/231
27/2/275
27/2/276
27/2/277

Petroleum and Geothermal Energy Act 2000

Consolidation of licence areas
Geothermal Exploration Licences
GELs 128, 129, 161, 162 and 163

Revocation of licences
Geothermal Exploration Licences
GELs 129, 161, 162 and 163

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 the adjacent areas of Geothermal Exploration Licences GELs 128, 129, 161, 162 and 163 held by –

Green Heat Resources Pty Ltd
Green Rock Geothermal Pty Ltd

The consolidated licence area shall hereafter be designated as:

Geothermal Exploration Licence GEL 128

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 30°14'40"S GDA94 and longitude 136°41'06"E GDA94, thence east to longitude 137°12'24"E GDA94, south to latitude 30°41'30"S GDA94, west to longitude 136°41'06"E GDA94, and north to the point of commencement, but excluding Special Mining Lease No.1, the area reserved under certain provisions of the Mining Act 1971 (G.G. 11 December 1986 at page 1820) – Roxby Downs Town Area and Lake Torrens National Park

AREA: **2197** square kilometres approximately

2. consequently revoke Geothermal Exploration Licences GELs 129, 161, 162 and 163.

As a consequence of the consolidation, the work program forming 'condition 1' of the consolidated GEL 128 comprises:

Year of Term of Licence	Minimum Work Requirements
One	• Review of existing geological data and assessment of the technical application of the latest "Hot Dry Rock' technology. • Evaluation of electric power market and preliminary economic assessment of the technology • *Note: Year 1 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*
Two	• Drill Blanche No 1 stratigraphic well (1,500 – 2,000 metres) to evaluate temperatures, stress regimes and rock characteristics at depth. • *Note: Year 2 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*
Three	• Borehole breakout analysis of Blanche No. 1 well – to ascertain magnitude of principal horizontal stresses • Geological and geophysical studies. • *Note: Year 3 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*
Four	• Mini-fracture stimulation in Blanche No. 1 well. • Geological and geophysical studies. • *Note: Year 4 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*
Five	• Geological and geophysical studies.

Dated: 21 January 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 128, 129, 161, 162 and 163 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 **Green Heat Resources Pty Ltd** by its authorised representative:

Date: 15/1/2010

Authorised Representative

ADRIAN LARKING

Name

MANAGING DIRECTOR

Position

Signed for and on behalf of **Green Rock Geothermal Pty Ltd** by its authorised representative:

Date: 15/1/2010

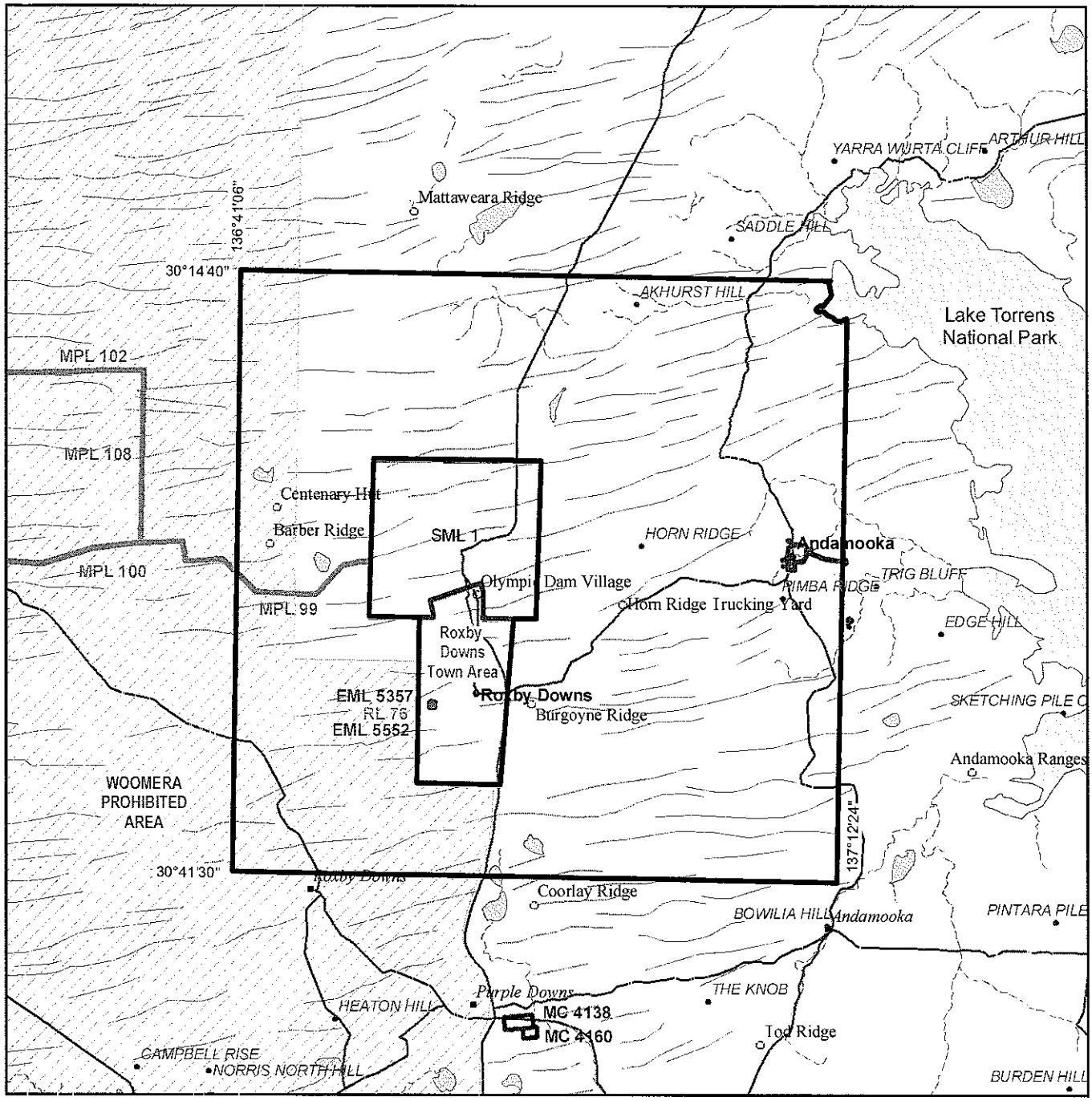
Authorised Representative

ADRIAN LARKING

Name

MANAGING DIRECTOR

Position



SCALE 1:500 000

10 5 0 10 20 30

Kilometres

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

THE PLAN HEREINBEFORE REFERRED TO

GEOTHERMAL EXPLORATION LICENCE NO: 128

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162, 163, 206 and 213

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: 15 December 2009

Ref: 27/2/230; 27/2/231; 27/2/275; 27/2/276; 27/2/277; 27/2/335; 27/2/356;

Petroleum and Geothermal Energy Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 128, 129, 161, 162 and 163

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 licences, held by -

Green Heat Resources Pty Ltd
Green Rock Geothermal Pty Ltd

Condition 1 of the licences is omitted and the following substituted:

" 1. During the term of the licences, the Licensee shall carry out or cause to be carried out exploratory operations on the area comprised in the licences 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	• Review of existing geological data and assessment of the technical application of the latest "Hot Dry Rock' technology. • Evaluation of electric power market and preliminary economic assessment of the technology.
Two	• Drill Blanche No. 1 stratigraphic well (1,500 – 2,000 metres) to evaluate temperatures, stress regimes and rock characteristics at depth.
Three	• Borehole breakout analysis of Blanche No. 1 well – to ascertain magnitude of principal horizontal stresses. • Geological and geophysical studies. *Note: Year 3 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162 and 163.*
Four	• Mini-fracture stimulation in Blanche No. 1 well • Geological and geophysical studies. *Note: Year 4 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162 and 163.*
Five	• Geological and geophysical studies.

"

Dated: 15 December 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

Inst 04171 doc

PETROLEUM ACT 2000

Suspension of Geothermal Exploration Licences

GELs 128, 129, 161, 162 and 163

PURSUANT to section 90 of the Petroleum Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licences have been suspended under the provisions of the Petroleum Act 2000, from and including 1 August 2009 until 31 December 2009, pursuant to delegated powers.

The expiry date of GELs 128, 129, 161, 162 and 163 is now determined to be 2 February 2010.

Dated 25 August 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

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162 & 163

1. Suspension of licences from and including 1 August 2009 to 31 December 2009 is hereby entered on the public register.

2. The expiry date of GELs 128, 129, 161, 162 and 163 is now 2 February 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

Date: 25 August 2009

Ref: 27/2/230 27/2/276
27/2/231 27/2/277
27/2/275

Petroleum Act 2000
S.90

SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162 & 163

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

(a) suspend geothermal exploration licences exploration licence GELs 128, 129, 161, 162 and 163 for the period from and including 1 August 2009 to 31 December 2009.

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

2. The expiry date of GELs 128, 129, 161, 162 and 163 is now 2 February 2010.

Dated: 25 August 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.134

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162 and 163

1. Notation of extension of time to 2 September 2009 by which the licensee must apply for the renewal of Geothermal Exploration Licences GELs 128, 129, 161, 162 and 163 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: 26 June 2009

File: 27/2/230
27/2/231
27/2/275
27/2/276
27/2/277

PETROLEUM ACT 2000

Suspension of Geothermal Exploration Licences—
GELs 128, 129, 161, 162, 163, 206 and 213

PURSUANT to section 90 of the Petroleum Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licences have been suspended under the provisions of the Petroleum Act 2000, from and including 30 April 2009 until 31 July 2009, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

The expiry date of GELs 128, 129, 161, 162 and 163 is now determined to be 2 September 2009.

The expiry date of GEL 206 is now determined to be 2 September 2010.

The expiry date of GEL 213 is now determined to be 2 September 2011.

Dated 27 April 2009.

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

Petroleum Act 2000
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162, 163, 206 AND 213

1. Suspension of licences from and including 30 April 2009 to 31 July 2009 is hereby entered on the public register.

2. The expiry date of GELs 128, 129, 161, 162 and 163 is now 2 September 2009.

3. The expiry date of GEL 206 is now 2 September 2010.

4. The expiry date of GEL 213 is now 2 September 2011.

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 April 2009

Ref: 27/2/230, 27/2/231, 27/2/275, 27/2/276, 27/2/277, 27/2/335, 27/2/356

Petroleum Act 2000
S.90

SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162, 163, 206 AND 213

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources, in the State of South Australia, pursuant to the provisions of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573 –

(a) suspend geothermal exploration licences exploration licence GELs 128, 129, 161, 162, 163, 206 and 213 for the period from and including 30 April 2009 to 31 July 2009.

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

2. The expiry date of GELs 128, 129, 161, 162 and 163 is now 2 September 2009.

3. The expiry date of GEL 206 is now 2 September 2010.

4. The expiry date of GEL 213 is now 2 September 2011.

Dated: 27 April 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.134

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162 and 163

1. Notation of extension of time to 30 April 2009 by which the licensee must apply for the renewal of Geothermal Exploration Licences GELs 128, 129, 161, 162 and 163 is hereby entered on the public register.

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

Date: 1 April 2009

File: 27/2/230
27/2/231
27/2/275
27/2/276
27/2/277

Petroleum Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 128, 129, 161, 162 and 163

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Division, 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 licences, held by -

Green Heat Resources Pty Ltd
Green Rock Geothermal Pty Ltd

Condition 1 of the licences is omitted and the following substituted:

" 1. During the term of the licences, the Licensee shall carry out or cause to be carried out exploratory operations on the area comprised in the licences 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	• Review of existing geological data and assessment of the technical application of the latest "Hot Dry Rock' technology. • Evaluation of electric power market and preliminary economic assessment of the technology.
Two	• Drill Blanche No. 1 stratigraphic well (1,500 – 2,000 metres) to evaluate temperatures, stress regimes and rock characteristics at depth.
Three	• Borehole breakout analysis of Blanche No. 1 well – to ascertain magnitude of principal horizontal stresses. • Geological and geophysical studies. *Note: Year 3 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*
Four	• Mini-fracture stimulation in Blanche No. 1 well. • Geological and geophysical studies. *Note: Year 4 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*

Five	• Drill a deep well (4,500 to 6,000 metres). • Fracture stimulation. • Microseismic monitoring. *Note: Year 5 work program to be conducted anywhere within the boundaries of GELs 128, 129, 161, 162, 163, 206 and 213.*

"

Dated: 30 May 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
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GEL 128, 129, 161, 162, 163, 206 and 213

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: 30 May 2007

Ref: 27/2/230
27/2/231
27/2/275
27/2/276
27/2/277
27/2/355
27/2/356

ADRIAN LARKING
PO BOX 637
WEST PERTH WA 6872

Remove this top section if desired before framing

Certificate of Registration on Change of Name

This is to certify that

GREEN ROCK ENERGY PTY. LTD.

Australian Company Number 096 036 396

did on the tenth day of May 2005 change its name to

GREEN HEAT RESOURCES PTY LTD

Australian Company Number 096 036 396

The company is a proprietary company.

The company is limited by shares.

The company is registered under the Corporations Act 2001 and is taken to be registered in South Australia and the date of commencement of registration is the twenty-seventh day of February, 2001.

CERTIFICATE

Issued by the
Australian Securities and Investments Commission
on this tenth day of May, 2005.

Jeffrey Lucy
Chairman

PERILYA GEOTHERMAL ENERGY PTY LTD
Level 2
31 Ventnor Avenue
WEST PERTH WA 6005

Remove this top section if desired before framing

Certificate of Registration on Change of Name

This is to certify that

PERILYA GEOTHERMAL ENERGY PTY LTD

Australian Company Number 112 162 964

did on the seventeenth day of June 2005 change its name to

GREEN ROCK GEOTHERMAL PTY LTD

Australian Company Number 112 162 964

The company is a proprietary company.

The company is limited by shares.

The company is registered under the Corporations Act 2001 and is taken to be registered in Western Australia and the date of commencement of registration is the tenth day of December, 2004.

COPY

Issued by the
Australian Securities and Investments Commission
on this seventeenth day of June, 2005.

Jeffrey Lucy
Chairman

CERTIFICATE

Petroleum Act 2000
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GEL 128, GEL 129, GEL 161, GEL 162, GEL 163 and GEL 206

1. Notation of change of company name –

   From: Perilya Geothermal Energy Pty Ltd
   To: Green Rock Geothermal Pty Ltd

   is hereby entered on the public register of licences.

2. Notation of change of company name –

   From: Green Rock Energy Pty Ltd
   To: Green Heat Resources Pty Ltd

   is hereby entered on the public register of licences.

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

Date: 16 December 2005

File: 27/2/230
27/2/231
27/2/275
27/2/276
27/2/277
27/2/335

Petroleum Act 2000
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCES
GELs 128, 129, 161, 162, 163, 206 and 213

1. Notation of lodgement of security is hereby entered on the public register.

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

Date: 22 September 2005

File: 27/2/356

PETROLEUM ACT 2000

Grant of Geothermal Exploration Licences
Gel 128, Gel 129, Gel 161, Gel 162 and Gel 163

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have 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	Area in km^2	Reference
GEL 128	Perilya Limited, Green Rock Energy Pty Ltd	Roxby Downs, South Australia	308	27/02/230
GEL 129	Perilya Limited, Green Rock Energy Pty Ltd	Roxby Downs, South Australia	408	27/02/231
GEL 161	Perilya Limited, Green Rock Energy Pty Ltd	Roxby Downs, South Australia	496	27/02/275
GEL 162	Perilya Limited, Green Rock Energy Pty Ltd	Roxby Downs, South Australia	488	27/02/276
GEL 163	Perilya Limited, Green Rock Energy Pty Ltd	Roxby Downs, South Australia	497	27/02/277

Description of Area—GEL 128

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

Commencing at a point being the intersection of latitude 30°20′00″S GDA94 and longitude 136°47′00″E GDA94, thence east to longitude 137°02′42″E GDA94, south to latitude 30°30′45″S GDA94, west to longitude 136°47′00″E GDA94, and north to point of commencement but excluding Special Mining Lease No.1 and that area reserved under certain provisions of the Mining Act 1971 (*Government Gazette*, 11 December 1986 at page 1820)—Roxby Downs Town Area.

Area: 308 km^2 approximately.

Description of Area—GEL 129

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

Commencing at a point being the intersection of latitude 30°30′45″S GDA94 and longitude 136°47′00″E GDA94, thence east to longitude 137°02′42″E GDA94, south to latitude 30°41′30″S GDA94, west to longitude 136°47′00″E GDA94 and north to point of commencement but excluding that area reserved under certain provisions of the Mining Act 1971 (*Government Gazette*, 11 December 1986 at page 1820)—Roxby Downs Town Area.

Area: 408 km^2 approximately.

Description of Area—GEL 161

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

Commencing at a point being the intersection of latitude 30°14′40″S GDA94 and longitude 136°41′06″E GDA94, thence east to longitude 136°48′45″E GDA94, south to latitude 30°20′00″S GDA94, west to longitude 136°47′00″E GDA94, south to latitude 30°41′30″S GDA94, west to longitude 136°41′06″E GDA94 and north to point of commencement.

Area: 496 km^2 approximately.

Description of Area—GEL 162

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

Commencing at a point being the intersection of latitude 30°14′40″S GDA94 and longitude 136°48′45″E GDA94, thence east to longitude 137°12′24″E GDA94, south to latitude 30°24′10″S GDA94, west to longitude 137°02′42″E GDA94, north to latitude 30°20′00″S GDA94, west to longitude 136°48′45″E GDA94 and north to point of commencement but excluding Lake Torrens National Park.

Area: 488 km^2 approximately.

Description of Area—GEL 163

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

Commencing at a point being the intersection of latitude 30°24′10″S GDA94 and longitude 137°02′42″E GDA94, thence east to longitude 137°12′24″E GDA94, south to latitude 30°41′30″S GDA94, west to longitude 137°02′42″E GDA94 and north to point of commencement.

Area: 497 km^2 approximately.

Dated 2 June 2004.

T. AUST, A/Director Petroleum
Minerals and Energy Division
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Petroleum Act 2000
S.115

MEMORANDUM

GEOTHERMAL EXPLORATION LICENCE
GEL 161

1. This Licence granted on 2 June 2004 is hereby entered on the public register.

2. Interests in the licence are:-

Perilya Limited	50%.
Green Rock Energy Pty Ltd	50%.

T. AUST
A/Director Petroleum
Minerals and Energy Division
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Date: 2 June 2004

SR 27/2/275

PETROLEUM ACT 2000

GEOTHERMAL EXPLORATION LICENCE

GEL 161

I, BARRY ALAN GOLDSTEIN, Director Petroleum, Minerals and Energy Division, 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:

Perilya Limited
ABN: 85 009 193 695

Green Rock Energy Pty Ltd
ACN: 096 036 396

(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 1st June 2009 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	• Review of existing geological data and assessment of the technical application of the latest "Hot Dry Rock' technology. • Evaluation of electric power market and preliminary economic assessment of the technology.
Two	• Design and plan a stratigraphic well to evaluate temperatures, stress regimes and rock characteristics at depth.
Three	• Drill stratigraphic well to depth of 1,500 – 2,000 metres.

Four	• Evaluate results of stratigraphic well. • Re-evaluation of the economics of "Hot Dry Rock" technology. • Design an appropriate pilot program.
Five	• Drill a pilot well to assess the geothermal energy potential of the Hot Dry Rock regime.

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: 2nd June 2004

T. Aust

T. AUST
A/DIRECTOR PETROLEUM

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

Signed by the said LICENSEE

Date 27th May 2004

Authorised Representative

Simon Ashton

Name

Director

Position

Green Rock Energy Pty Ltd

Company

Authorised Representative

Adrian Larking

Name

Director

Position

Green Rock Energy Pty Ltd

Company

Signed by the said LICENSEE

Date 27th May 2004

Authorised Representative

T. M. Clifton

Name

Managing Director

Position

Perilya Limited

Company

Authorised Representative

P.C. Lockyer

Name

Director

Position

Perilya Limited

Company

GEOTHERMAL EXPLORATION LICENCE

GEL 161

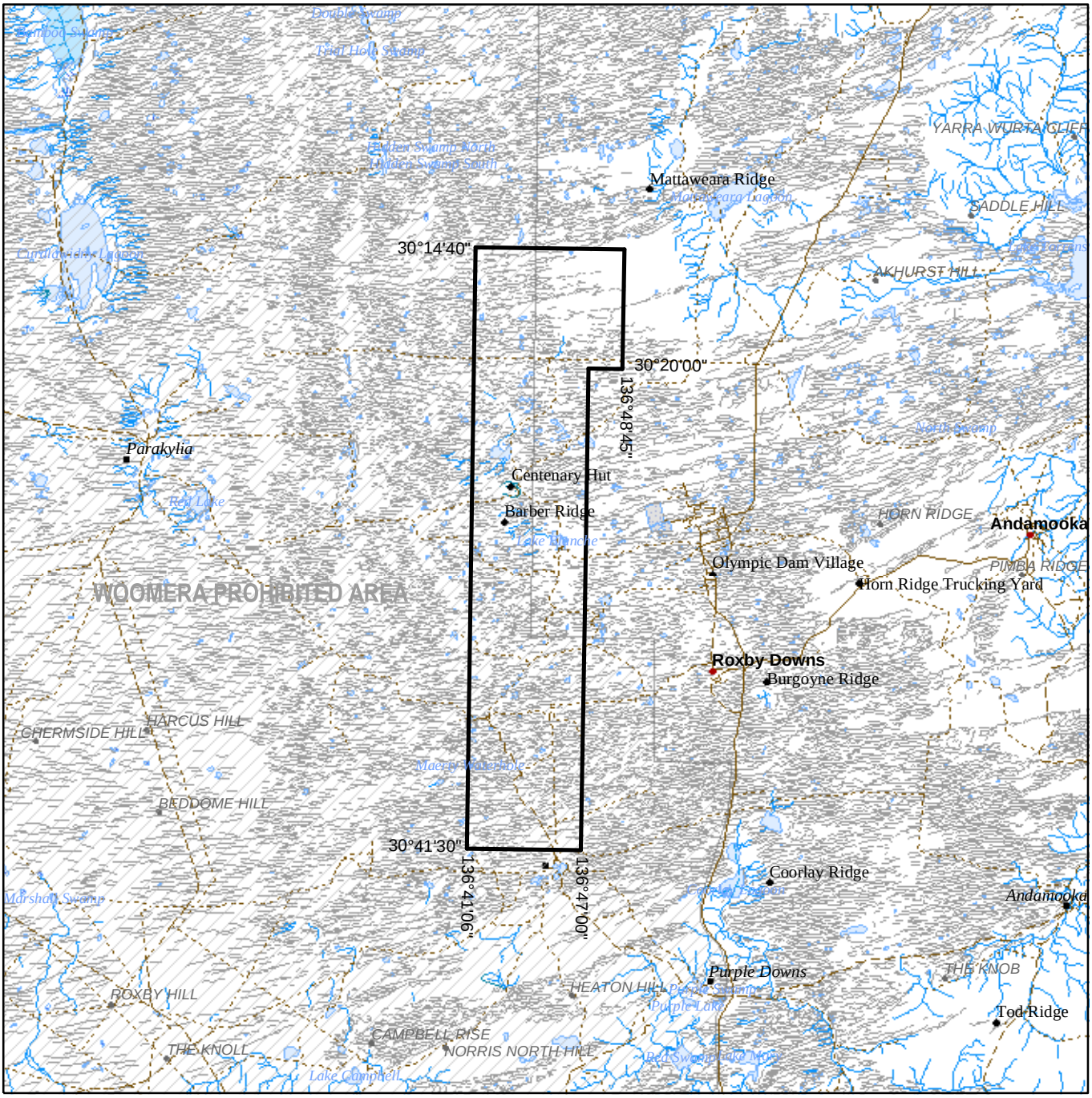
THE SCHEDULE

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°14'40"S GDA94 and longitude 136°41'06"E GDA94, thence east to longitude 136°48'45"E GDA94, south to latitude 30°20'00"S GDA94, west to longitude 136°47'00"E GDA94, south to latitude 30°41'30"S GDA94, west to longitude 136°41'06"E GDA94, and north to point of commencement.

AREA: **496** square kilometres approximately.



SCALE 1:500 000

10 5 0 10 20 30

Kilometres

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

THE PLAN HEREINBEFORE REFERRED TO

GEOTHERMAL EXPLORATION LICENCE NO: 161

Government of South Australia MINERALS & ENERGY

SR 27/2/275

AREA: **496** sq km (approx)