

INDEX OF DOCUMENTS HELD ON THE PUBLIC REGISTER FOR GEOTHERMAL EXPLORATION LICENCE GEL 238

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|-----|-----------------|---|
| 1. | 22 June 2006 | Memorandum entering GEL 238 on the public register. |
| 2. | 22 June 2006 | Geothermal Exploration Licence GEL 238

Interests: Pacific Hydro Ltd 100% |
| 3. | 27 June 2006 | Gazettal of Grant of GEL 238 |
| 4. | 17 March 2008 | Memorandum entering suspension of licence conditions on the public register. |
| 5. | 17 March 2008 | Suspension of licence |
| 6. | 20 March 2008 | Gazettal of suspension of GEL 238 |
| 7. | 11 April 2008 | Temporary cessation of suspension of licence |
| 8. | 11 April 2008 | Memorandum entering temporary cessation of suspension on the public register. |
| 9. | 17 April 2008 | Gazettal of temporary cessation of suspension of GEL 238. |
| 10. | 12 May 2008 | Memorandum entering notation of receipt of security on the public register. |
| 11. | 15 July 2008 | Memorandum entering variation of licence conditions on the public register. |
| 12. | 15 July 2008 | Variation of licence. |
| 13. | 21 October 2008 | Suspension of licence from and including 8 November 2008 until 7 August 2009.

New expiry date of GEL 238 is now 1 October 2012 |
| 14. | 21 October 2008 | Memorandum entering the suspension of licence on the public register. |
| 15. | 30 October 2008 | Gazettal of suspension of licence |
| 16. | 6 August 2009 | Suspension of licence from and including 8 August 2009 until 7 August 2010.

New expiry date of GEL 238 is now 1 October 2013 |

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|---------------------|---|
| 17. 6 August 2009 | Memorandum entering the suspension of licence on the public register. |
| 18. 13 August 2009 | Gazettal of suspension of licence |
| 19. 7 February 2011 | Consolidation of licence area with GELs 193, 196, 199, 202 and 205 with effect from 7 February 2011 |
| | Revocation of licence. |
| 20. 7 February 2011 | Memorandum entering the consolidation of licence area and revocation of licence on the public register. |

**Petroleum and Geothermal Energy Act 2000
S.115**

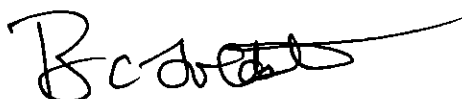
MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 193, 196, 199, 202, 205 and 238**

1. Consolidation of the adjacent licence areas of GELs 193, 196, 199, 202, 205 and 238, whereby the consolidated licence area is now designated as GEL 193 is hereby entered on the public register.

The total area of GEL 193 is now 2,964 square kilometres approximately.

2. Revocation of GELs 196, 199, 202, 205 and 238 is hereby entered on the public register.
3. 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: 7 February 2011

Ref: 27/2/319
27/2/322
27/2/325
27/2/328
27/2/331
27/2/334

Petroleum and Geothermal Energy Act 2000

Consolidation of licence areas Geothermal Exploration Licences GELs 193, 196, 199, 202, 205 and 238

Revocation of licence Geothermal Exploration Licences GELs 196, 199, 202, 205 and 238

Variation of licence conditions Geothermal Exploration Licence GEL 193

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 193, 196, 199, 202, 205 and 238 held by –

Pacific Hydro Limited
ACN 115 281 144

The consolidated licence area shall be designated as:

Geothermal Exploration Licence GEL 193

DESCRIPTION OF CONSOLIDATED AREA

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

Commencing at a point being the intersection of latitude 27°08'55"S GDA94 and longitude 138°40'55"E GDA94, thence east to longitude 139°41'20"E GDA94, north to latitude 27°02'55"S GDA94, east to the western boundary of Innamincka Regional Reserve, thence southerly along the boundary of the said Regional Reserve to latitude 27°17'08"S GDA94, west to longitude 139°41'20"E GDA94, south to latitude 27°22'25"S GDA94, west to longitude 138°40'55"E GDA94, and north to point of commencement.

AREA: **2964** square kilometres approximately.

2. consequently revoke Geothermal Exploration Licences GELs 196, 199, 202, 205 and 238.

As a consequence of the consolidation, the work program forming 'condition 1' of the consolidated GEL 193 comprises:

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. <i>Year 2 work program to be carried out anywhere within GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 236, 237 and 238</i>
Three	<ul style="list-style-type: none"> Identify slim hole target and prepare approvals. <i>Year 3 work program to be carried out anywhere within GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 236, 237 and 238</i>
Four	<ul style="list-style-type: none"> Fill-in gravity data and modelling. <i>Year 4 work program to be carried out anywhere within GELs 191, 192 and 193</i>
Five	<ul style="list-style-type: none"> Drill 1 slim hole. <i>Year 5 work program to be carried out anywhere within GELs 191, 192 and 193</i>

Dated:

7 Feb 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

The following signature evidences the consent of the licensee to the consolidation of GELs 193, 196, 199, 202, 205 and 238 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 **Hydro Pacific Limited** by its authorised representative:

.....
Date

19/1/2011

.....
Authorised Representative

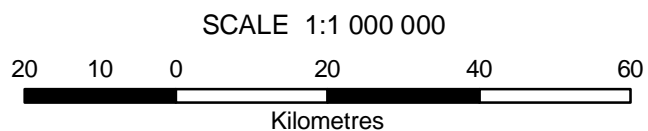
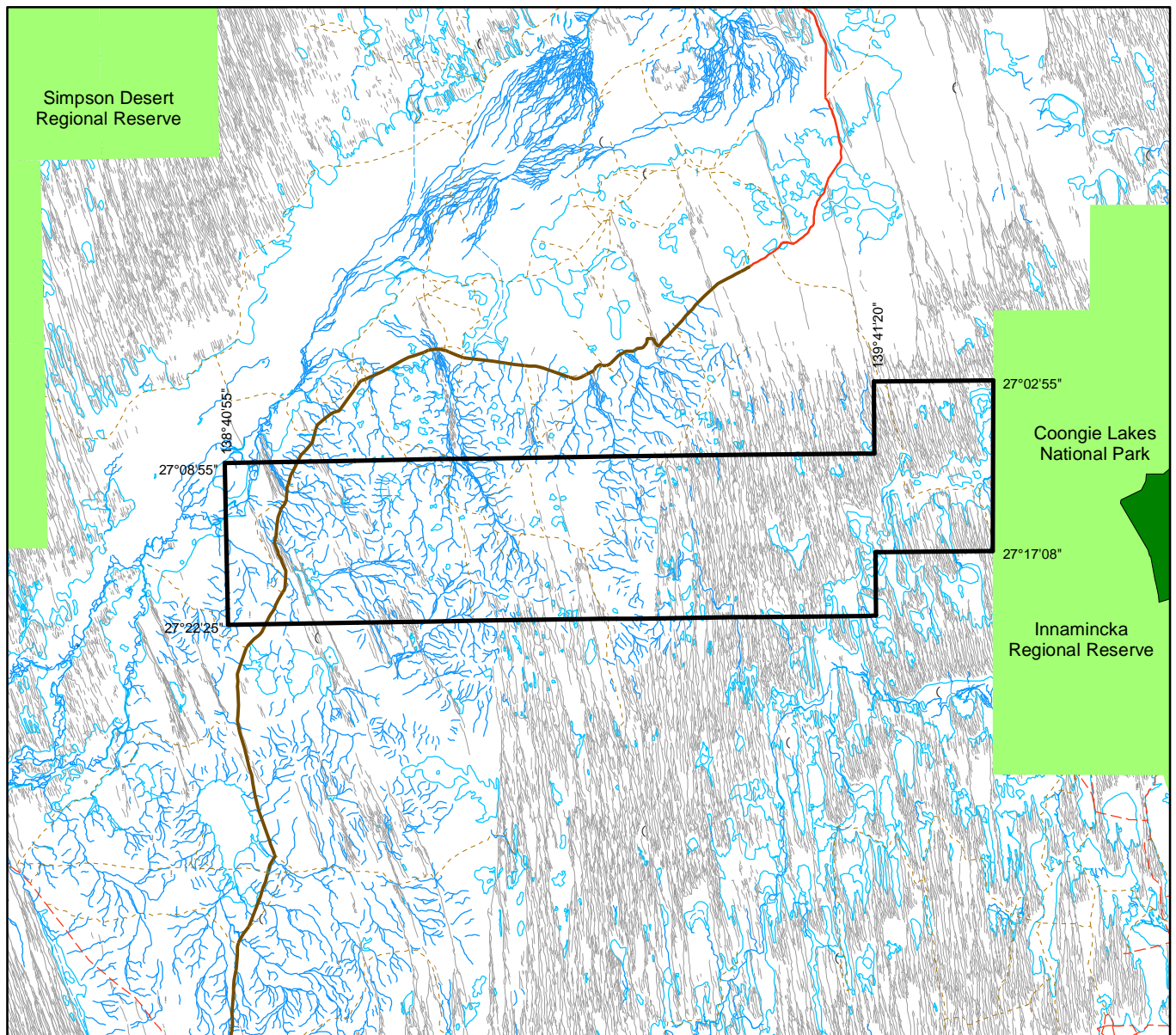
Terry Fesh

.....
Name

TERRY FESH

.....
Position

EXEC MGR DEVT.



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: 193



Government of South Australia
Primary Industries and Resources SA

SR 27/2/322

AREA: 2964 sq km (approx)

PETROLEUM ACT 2000

*Suspension of Geothermal Exploration Licences—GELs 191, 192,
193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204,
205, 236, 237 and 238*

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 8 August 2009 until 7 August 2010, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

The expiry date of the GELs 191-205 is now determined to be 1 October 2012.

The expiry date of the GELs 236-238 is now determined to be 1 October 2013.

Dated 6 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.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES
GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203,
204, 205, 236, 237 and 238**

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 GELs 191-205 and 236-238 for the period from and including 8 August 2009 to 7 August 2010.
- 1. No regulated activities are permitted to be carried out during the period of the suspension.
- 2. The expiry date of GELs 191-205 is now 1 October 2012.
- 3. The expiry date of GELs 236-238 is now 1 October 2013.

Dated: 6 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.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202,
203, 204, 205, 236, 237 and 238

1. Suspension of licences from and including 8 August 2009 to 7 August 2010 is hereby entered on the public register.
2. The expiry date of GELs 191-205 is now 1 October 2012.
3. The expiry date of GELs 236-238 is now 1 October 2013.



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: 6 August 2009

Ref:	27/2/320	27/2/326	27/2/332
	27/2/321	27/2/327	27/2/333
	27/2/322	27/2/328	27/2/334
	27/2/323	27/2/329	27/2/393
	27/2/324	27/2/330	27/2/394
	27/2/325	27/2/331	27/2/395

PETROLEUM ACT 2000

*Suspension of Geothermal Exploration Licences—GELs 191, 192,
193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204,
205, 236, 237 and 238*

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 8 November 2008 until 7 August 2009, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

The expiry date of the GELs 191-205 is now determined to be 1 October 2011.

The expiry date of the GELs 236-238 is now determined to be 1 October 2012.

Dated 21 October 2008.

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 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202,
203, 204, 205, 236, 237 and 238

1. Suspension of licences from and including 8 November 2008 to 7 August 2009 is hereby entered on the public register.
2. The expiry date of GELs 191-205 is now 1 October 2011.
3. The expiry date of GELs 236-238 is now 1 October 2012.



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

Date: 21 October 2008

Ref:	27/2/320	27/2/324	27/2/328	27/2/332	27/2/394
	27/2/321	27/2/325	27/2/329	27/2/333	27/2/395
	27/2/322	27/2/326	27/2/330	27/2/334	
	27/2/323	27/2/327	27/2/331	27/2/393	

Petroleum Act 2000
S.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES**
**GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203,
204, 205, 236, 237 and 238**

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 191-205 and 236-238 for the period from and including 8 November 2008 to 7 August 2009.
- 1. No regulated activities are permitted to be carried out during the period of the suspension.
- 2. The expiry date of GELs 191-205 is now 1 October 2011.
- 3. The expiry date of GELs 236-238 is now 1 October 2012.

Dated: 21 October 2008



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

VARIATION OF GEOTHERMAL EXPLORATION LICENCES

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573 hereby vary the conditions of Geothermal Exploration Licences GELs 236, 237 and 238 held by -

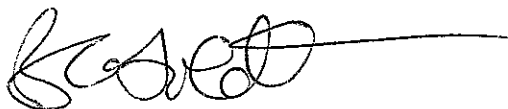
Pacific Hydro Limited

Condition 1 of the licences 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. Years one to four exploratory operations may be conducted anywhere within the area covered by GELs 191 to 205 and 236 to 238, and 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.
Two	<ul style="list-style-type: none">• Drill and test 1 well to a depth of 900m.
Three	<ul style="list-style-type: none">• Drill and test 1 injector well; and• Conduct long-term flow test
Four	<ul style="list-style-type: none">• Construct demonstration plant
Five	<ul style="list-style-type: none">• Monitor and analyse performance of the demonstration plant and prepare techno-economic case for scale-up.

Dated: 15 July 2008



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

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202,
203, 204, 205, 236, 237 and 238**

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 July 2008

Ref: 27/2/320 to 27/2/334
27/2/393 to 27/2/395

Petroleum Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 191, 192, 193, 194, 195, 196, 197, 198, 199,
200, 201, 202, 203, 204, 205, 236, 237 and 238

- 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: 12 May 2008

File:	27/2/320	27/2/326	27/2/332
	27/2/321	27/2/327	27/2/333
	27/2/322	27/2/328	27/2/334
	27/2/323	27/2/329	27/2/393
	27/2/324	27/2/330	27/2/394
	27/2/325	27/2/331	27/2/395

PETROLEUM ACT 2000

*Temporary Cessation of Suspension of Geothermal Exploration
Licences—Gels 191-205 and GELs 236-238*

PURSUANT to section 90 of the Petroleum Act 2000, notice is hereby given that the suspension dated 17 March 2008, of the abovementioned Exploration Licence has been temporarily ceased under the provisions of the Petroleum Act 2000, from and including 20 April 2008 to 24 April 2008, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

The expiry date of GELs 191-205 is now 1 January 2011.

The expiry date of GELs 236-238 is now 1 January 2012.

Dated 11 April 2008.

C. D. COCKSHELL,
Acting 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

**TEMPORARY CESSATION OF SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES – GELs 191 – 205 &
GELs 236 - 238**

1. Temporary cessation of suspension of licence from and including 20 April 2008 to 24 April 2008 is entered on the public register.



**C.D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development**

Date: 11 April 2008

Ref:	27/2/320	27/2/324	27/2/328	27/2/332	27/2/394
	27/2/321	27/2/325	27/2/329	27/2/333	27/2/395
	27/2/322	27/2/326	27/2/330	27/2/334	
	27/2/323	27/2/327	27/2/331	27/2/393	

Petroleum Act 2000
S.90

**TEMPORARY CESSATION OF SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES
GELs 191 – 205 and GELs 236 - 238**

I, CYRIL DAVID COCKSHELL, A/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) hereby approve the temporary cessation of suspension dated 17 March 2008 of geothermal exploration licences GELs 191 to 205 and GELs 236 to 238 for a period of five (5) days from and including 20 April 2008 to 24 April 2008.

1. Regulated activities are permitted to be carried out during this period of temporary cessation of suspension.
2. The suspension dated 17 March 2008 will resume with effect from and including 25 April 2008 until 7 November 2008.

Dated: 11 April 2008



C.D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

PETROLEUM ACT 2000

*Suspension of Geothermal Exploration Licences—
GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200,
201, 202, 203, 204, 205, 236, 237 and 238*

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 3 March 2008 until 2 November 2008, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

The expiry date of the GELs 191-205 is now determined to be 1 January 2011.

The expiry date of the GELs 236-238 is now determined to be 1 January 2012.

Dated 17 March 2008.

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.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCES**
**GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203,
204, 205, 236, 237 and 238**

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 191-205 and 236-238 for the period from and including 3 March 2008 to 2 November 2008.
- 1. No regulated activities are permitted to be carried out during the period of the suspension.
- 2. The expiry date of GELs 191-205 is now 1 January 2011.
- 3. The expiry date of GELs 236-238 is now 1 January 2012.

Dated: 17 March 2008



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

GEO THERMAL EXPLORATION LICENCES
GELs 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202,
203, 204, 205, 236, 237 and 238

1. Suspension of licences from and including 3 March 2008 to 2 November 2008 is hereby entered on the public register.
2. The expiry date of GELs 191-205 is now 1 January 2011.
3. The expiry date of GELs 236-238 is now 1 January 2012.



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

Date: 17 March 2008

Ref: 27/2/320	27/2/324	27/2/328	27/2/332	27/2/394
27/2/321	27/2/325	27/2/329	27/2/333	27/2/395
27/2/322	27/2/326	27/2/330	27/2/334	
27/2/323	27/2/327	27/2/331	27/2/393	

PETROLEUM ACT 2000

*Grant of Geothermal Exploration Licences—
GEL 236, GEL 237 and GEL 238*

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have been granted with effect from and including 2 May 2006, under the provisions of the Petroleum Act 2000, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

No. of Licence	Licensees	Locality	Date of Expiry	Reference
GEL 236	Pacific Hydro Ltd	Cooper Basin, South Australia	1 May 2011	27/2/317
GEL 237	Pacific Hydro Ltd	Cooper Basin, South Australia	1 May 2011	27/2/318
GEL 238	Pacific Hydro Ltd	Cooper Basin, South Australia	1 May 2011	27/2/319

Description of Area—GEL 236

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

Commencing at a point being the intersection of latitude 26°42'00"S GDA94 and longitude 139°41'20"E GDA94, thence east to longitude 139°53'10"E GDA94, south to latitude 26°55'25"S GDA94, west to longitude 139°41'20"E GDA94 and north to the point of commencement.

Area: 486 km² approximately.

Description of Area—GEL 237

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

Commencing at a point being the intersection of latitude 26°55'25"S GDA94 and longitude 139°41'20"E GDA94, thence east to longitude 139°57'00"E GDA94, south to latitude 27°02'55"S GDA94, west to longitude 139°41'20"E GDA94 and north to the point of commencement.

Area: 359 km² approximately.

Description of Area—GEL 238

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

Commencing at a point being the intersection of latitude 27°02'55"S GDA94 and longitude 139°41'20"E GDA94, thence east to the western boundary of Innamincka Regional Reserve, thence southerly along the boundary of the said Regional Reserve to latitude 27°17'08"S GDA94, west to longitude 139°41'20"E GDA94 and north to the point of commencement.

Area: 478 km² approximately.

Dated 22 June 2006.

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

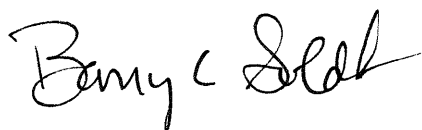
**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GEL 236, GEL 237 and GEL 238**

1. These Licences granted on 22 June 2006 are hereby entered on the public register.
2. Interests in the licence are:-

Pacific Hydro Limited	100%
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**BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development**

Date: 22 June 2006

Ref: 27/2/317
27/2/318
27/2/319

PETROLEUM ACT 2000

GEOHERMAL EXPLORATION LICENCE

GEL 238

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:

Pacific Hydro Limited ACN 057 279 508

(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 2 May 2006 and to expire on 1 May 2011, but carrying the right of renewal under the *Petroleum Act 2000*.

DESCRIPTION OF AREA

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

CONDITIONS

1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. Years one to four exploratory operations may be conducted anywhere within the area covered by GELs 191 to 205 and 236 to 238, and 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.
Two	<ul style="list-style-type: none">• Drill and test 2 wells.
Three	<ul style="list-style-type: none">• Drill and test 1 injector well; and• Conduct long-term flow test.
Four	<ul style="list-style-type: none">• Construct demonstration plant.

Five	<ul style="list-style-type: none"> • Monitor and analyse performance of the demonstration plant and prepare techno-economic case for scale-up.
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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:.....22 June.....2006



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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: 19th June, 2006

Terry Teoh

Authorised Representative

TERRY TEOH

Name

DEVELOPMENT MANAGER, SA

Position

PACIFIC HYDRO LTD.

Company

[Signature]

Witness

Philip McCarren

Name

Manager

Position

Swimmingpool SpA Area 9/57

Company

GEOHERMAL EXPLORATION LICENCE

GEL 238

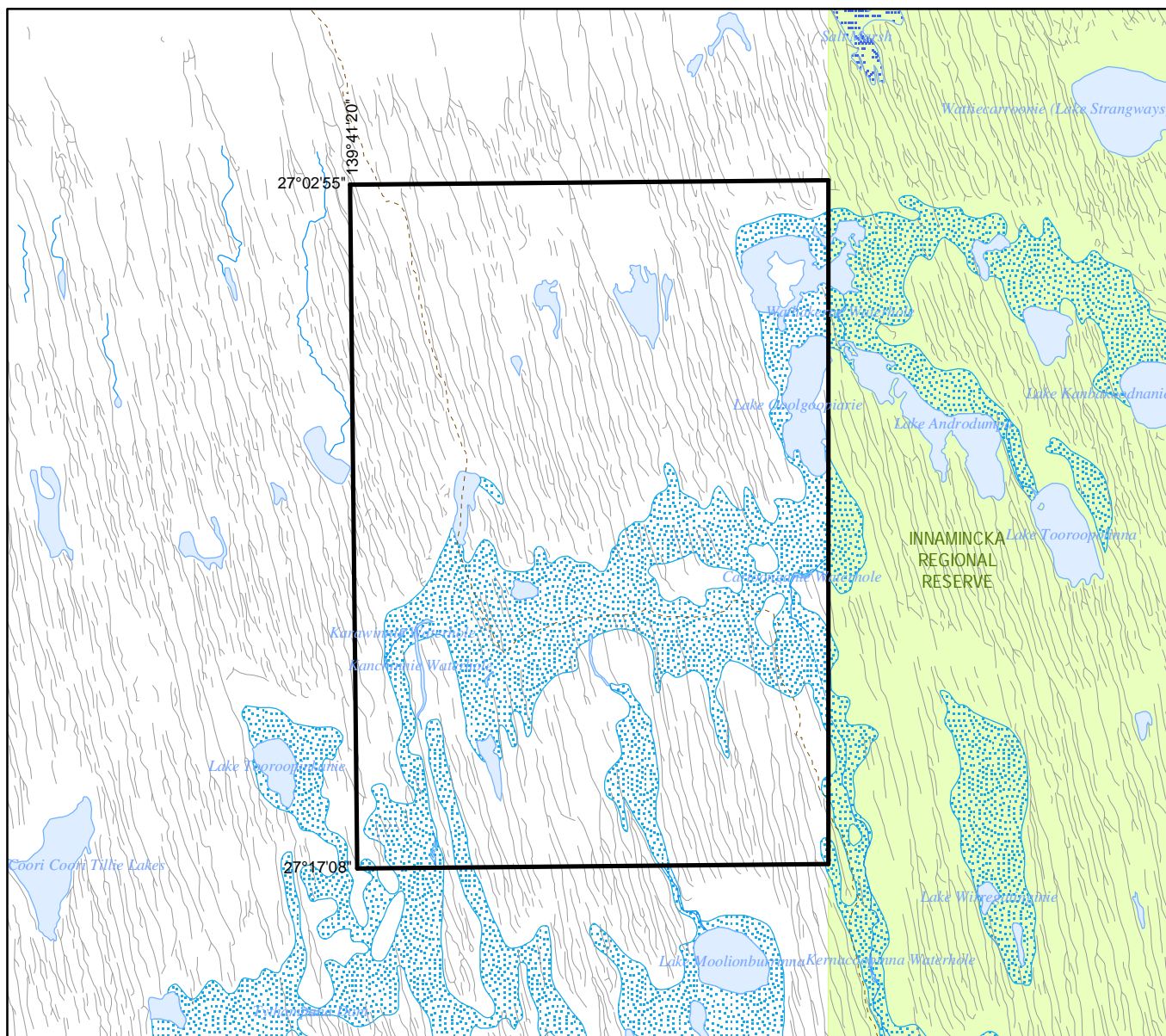
THE SCHEDULE

Description of Area

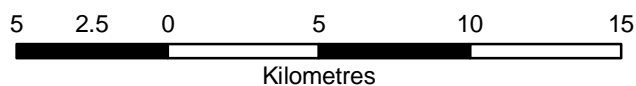
All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 27°02'55"S GDA94 and longitude 139°41'20"E GDA94, thence east to the western boundary of Innamincka Regional Reserve, thence southerly along the boundary of the said Regional Reserve to latitude 27°17'08"S GDA94, west to longitude 139°41'20"E GDA94, and north to the point of commencement.

AREA: **478** square kilometres approximately.



SCALE 1:250 000



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

THE PLAN HEREINBEFORE REFERRED TO

GEOHERMAL EXPLORATION LICENCE NO: 238



Government of South Australia
Primary Industries and Resources SA

SR 27/2/395

AREA: 478 sq km (approx)