



30 April 2010

The Manager Companies  
ASX Limited  
20 Bridge Street  
Sydney NSW 2000

Dear Sir/Madam,

(7 pages by email)

**REPORT ON ACTIVITIES FOR THE QUARTER ENDED  
31 MARCH 2010**

**HIGHLIGHTS**

- **Planet Gas awarded 3 Geothermal Exploration Licences in the Sydney Basin, NSW**
- **Planet Gas awarded the Geothermal Exploration Permit (EPG29) located surrounding the Innot Hot Springs geothermal system, Queensland**
- **USA operational team in place to continue investigating USA projects**

**AUSTRALIAN OPERATIONS**

**Sydney Basin Geothermal Project**

The Directors of Planet Gas Limited (the 'Company') are pleased to advise that during the quarter, the Company via its wholly owned subsidiary, Gradient Energy Limited, was awarded 3 key Sydney Basin geothermal exploration licenses.

Offered under competitive tender during 2009, by the New South Wales Department of Primary Industries, the geothermal exploration licences EL7510 Ourimbah, EL 7512 Richmond and EL 7513 Sydney cover approximately 5,077km<sup>2</sup> of prospective ground in the Sydney Basin.

The Company plans to target exploration in these areas for large scale Hot Sedimentary Aquifer (HSA) geothermal resources hosted by the Illawarra Coal Measures and the Shoalhaven Group.

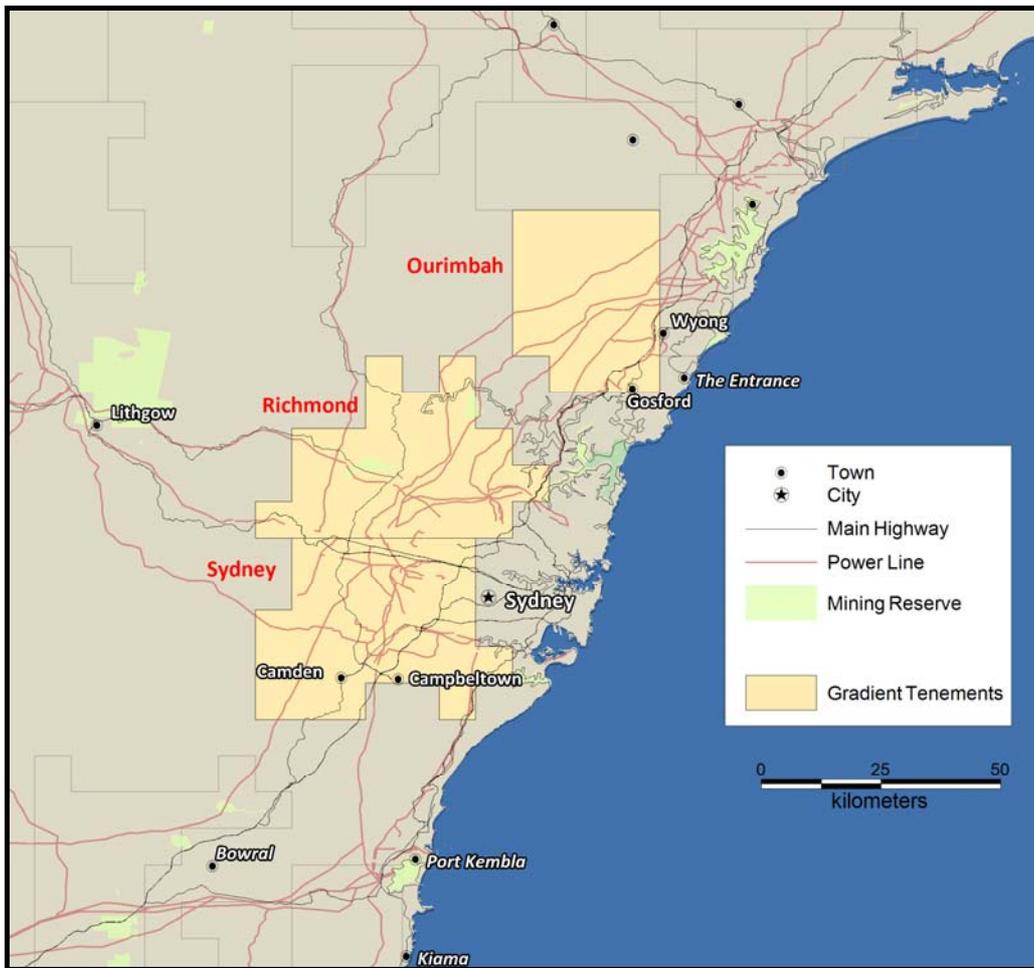
Such resources could potentially deliver low carbon emission electrical power generation and industrial heating solutions to serve Sydney's rapidly expanding electrical and energy demands. The proximity of the tenements to the large population centres of Sydney, Campbelltown, Camden, Gosford and Wyong gives the Company the opportunity to explore district heating and cooling opportunities powered by geothermal energy.

**Planet Gas Limited** ABN 46 098 952 035

Level 2, 66 Hunter Street Sydney NSW 2000 Australia T +61 2 9300 3322 F +61 2 9221 6333

E [pnightingale@planetgas.com](mailto:pnightingale@planetgas.com) W [www.planetgas.com](http://www.planetgas.com)

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**Sydney Basin geothermal project location map**

### **Innot Geothermal Project**

The Company is pleased to advise that Geothermal Exploration Permit (EPG 29), located at the Innot Hot Springs geothermal system, 100 kilometres south-west of Cairns, in northern Queensland, was granted during the quarter to the Company's wholly owned subsidiary, Gradient Energy Limited, with a licence commencement date of 1 May 2010.

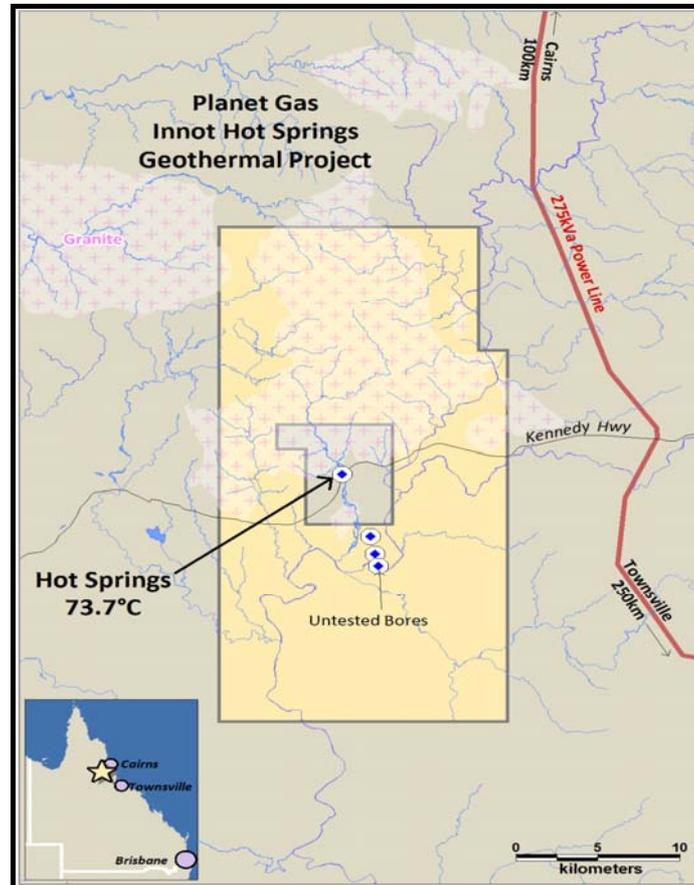
The granting of this permit is an encouraging next step in the Company's growth of a strategic portfolio of 'infrastructure advantaged', high quality geothermal projects.

The Innot geothermal project, covering 596km<sup>2</sup>, has excellent year round access located on the Kennedy Highway 100 kilometres from Cairns and 250 kilometres from Townsville in northern Queensland. Innot is also well placed for future supply of power with the 275 kV power lines of the main east coast grid located 10 kilometres from the project.

The Innot geothermal project is regarded as a potential 'fast-track' project given the significant heat gradient of at-surface and near-surface geothermal waters in the area, as well as the population growth characteristics in the region.

These qualities could potentially provide the project with cost and development advantages when compared to the Hot Fractured Rock deep drilling style geothermal projects, more commonly focused on in Australia to date.

Rising energy demand, particularly in coastal and near coast-regional Queensland, makes this a natural market where traditional high carbon baseload power supply can potentially be complemented with low carbon geothermal energy.



**Innot geothermal project location map**

The Innot geothermal project is distinct from most other geothermal projects in Australia with a known geothermal spring system expressed at surface in the immediate vicinity of the exploration permit. Surface spring temperatures reach 73.7°C making it the hottest measured natural spring temperatures in Australia. Standard temperature calculation techniques based on the spring water chemistry predict geothermal fluid temperatures at depth in the range 144°C to 165°C. This is well within the temperature window for commercial power generation from off the shelf geothermal power plant technologies.

The Company's initial exploration program aims to confirm the key geological structures, thermal gradients and the extent of the geothermal system within the tenement using standard geophysical techniques commonly applied in exploration of conventional volcanic hosted geothermal systems. This will be followed by drilling to establish the depth to the geothermal reservoir and testing to establish if natural flow rates of the geothermal fluids are sufficient to support commercial scale power generation.

### **Clarence Moreton Geothermal Project**

During the quarter, field activities commenced with the collection and testing of core samples. With the core sample results, the Company aims to provide a more accurate estimate of the temperature versus depth profile and undertake permeability and porosity measurements. Geological and geophysical works were ongoing including seismic reinterpretation.

### **Leigh Creek Geothermal Project**

Field activities have not commenced, but preliminary geological and geophysical work has been ongoing.

### **Gloucester Geothermal Project**

Field activities have not commenced, but preliminary geological and geophysical work has been ongoing.

### **Eromanga Geothermal Project**

No field activities were undertaken during the quarter.

### **South Australia - Cooper Basin Oil and Gas Project**

Cooper Basin (licence number PELA514) is still yet to be granted due to continuing negotiations with native title claimants. Once this process is completed, the granting of the exploration licence will take place.

In the meantime, the Company aims to identify prospective conventional oil and gas, tight gas, deep coal seam gas and shale gas plays. During the quarter, the Company has undertaken data collection and commenced some interpretation towards the identification of prospects and leads which will be rankranked in order to allow for a commencement of its field activities.

## **USA OPERATIONS**

During the quarter, field operations in Wyoming were again restricted by severe winter weather. A break in the weather conditions in early April have allowed planned field operations at West Esponda, comprising well workovers to be undertaken.

The workovers, including re-perforation and re-stimulation of West Esponda state lease wells, #16-1 and #16-5 have been completed and flow testing, which will continue for several months, has commenced. Preliminary results are expected to be in the next quarter.

Additionally, cased hole logs were run to evaluate casing integrity and samples of bottom hole fill material were collected and analysed.

The economic situation in the Powder River Basin remains as difficult with wellhead gas prices below US\$2.00/MCF. As a result, many operators, including at the Company's Oriva and East Esponda projects, have shut-in wells rather than operate at a loss. The operators of those wells have chosen to shut down operations until the price for natural gas within the field has improved.

The Company now has a full USA operational team, including a USA Operations Manager, a Landman and an Oil and Gas Geophysicist, engaged in the search for new oil and gas projects in the Florida Panhandle and the USA Gulf Coast.

For further information, please contact Norman Seckold, Sharif Oussa or Peter Nightingale on (61-2) 9300 3322.

Yours sincerely



Peter J. Nightingale  
Director

pjn5362

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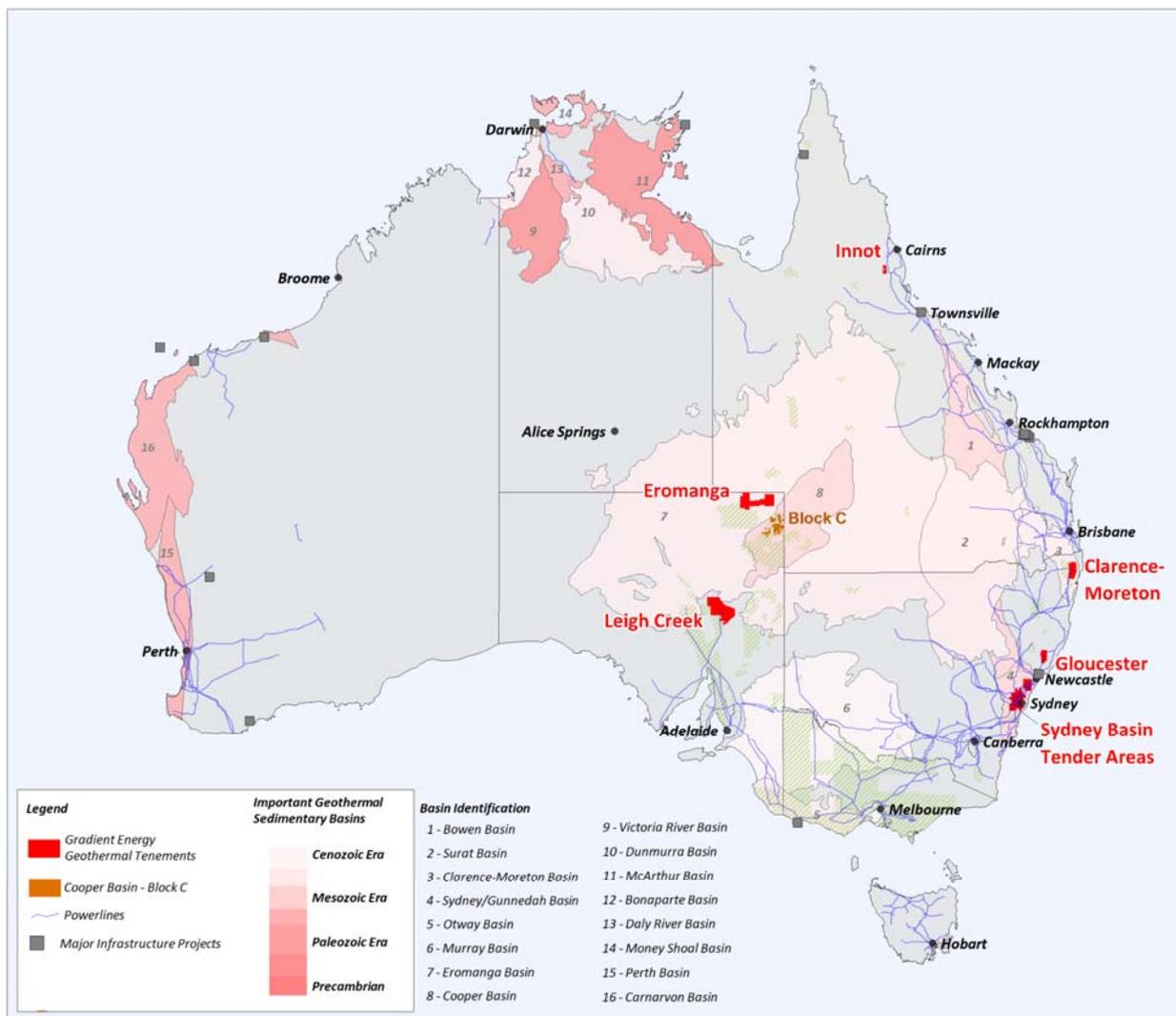
## PLANET GAS LIMITED PROJECT LIST

### AUSTRALIA

State	Tenement	Resource	Project	Status	Granted	Expiry	Company	Area
NSW	EL25106	Geothermal	Clarence Moreton	Granted	28-May-08	28-May-12	Gradient Energy Ltd	1942 km2
NSW	EL25639	Geothermal	Gloucester	Granted	10-Jun-09	10-Jun-11	Gradient Energy Ltd	1230 km2
NSW	EL7510	Geothermal	Sydney Basin	Granted	7-Apr-10	7-Apr-13	Gradient Energy Ltd	1377 km2
NSW	EL7512	Geothermal	Sydney Basin	Granted	7-Apr-10	7-Apr-13	Gradient Energy Ltd	1800 km2
NSW	EL7513	Geothermal	Sydney Basin	Granted	7-Apr-10	7-Apr-13	Gradient Energy Ltd	1900 km2
QLD	EPC29	Geothermal	Innot	Granted	13-Apr-10	30-Apr-15	Gradient Energy Ltd	596 km2
SA	GEL354- GEL365 and GEL377	Geothermal	Eromanga	Granted	26-May-08	25-May-13	Gradient Energy Ltd	6101 km2
SA	GEL448- GEL461	Geothermal	Leigh Creek	Granted	17-Nov-09	16-Nov-14	Gradient Energy Ltd	6590 km2
SA	PELA514 (Block C)	Oil & Gas	Cooper Basin	App Lodged 9-Dec-09 (awaiting Native Title clearance)			Planet Cooper Basin Pty Ltd	1917 km2

### USA

State	Basin	Holder	Resource	Project	Area
Wyoming	Powder River	Paupers Dream Company	Oil & Gas	East Esponda	469 Ha
Wyoming	Powder River	Paupers Dream Company	Oil & Gas	West Esponda	11,586 Ha
Wyoming	Powder River	Paupers Dream Company	Oil & Gas	Oriva Throne	146 Ha
Wyoming	Powder River	Paupers Dream Company	Oil & Gas	Oriva Federal	359 Ha



Planet Gas Australian tenement map