

31 July 2018

## QUARTERLY ACTIVITIES REPORT

To 30<sup>th</sup> June 2018

**Blue Energy Limited (ASX: "BUL")** is pleased to report on activities during the June 2018 quarter across its exploration acreage in Queensland and the Northern Territory in which the Company's key gas and oil projects are located.

### Key points on latest progress

- **Significant Institutions join Blue's Share Register**
- **Gas commercialisation negotiations advancing**
- **Northern Territory Government rolls out Implementation Plan for Oil and Gas sector**
- **New play exposure in Galilee Basin**
- **Cash Position – \$2.7 million as at 30 June 2018**

### **Share Register revamp**

During the Quarter (and in July) Blue Energy's two long standing shareholders, Stanwell Corporation and KOGAS, both sold their holdings in the Company and are no longer on the Blue Energy share register. Both Companies are government-owned corporations, and as such their positions in a small listed exploration company were specific to the time at which they came onto the register (2008-2010). Their recent positions in Blue were entirely a legacy of those times. The Qld Government's debt reduction strategy has lately seen Stanwell focus on maximizing returns to Qld Treasury. KOGAS on the other hand is a 15% owner of the GLNG project, which has been a substantial gas buyer in recent years as its LNG export project has ramped up production from the Curtis Island plant. Accordingly, with Blue Energy being a seller of its gas reserves in the Bowen Basin, there was a clear conflict in KOGAS's role as an equity holder in both companies.

The sale of both these blocks, totaling 150,214,198 shares (representing 13.0% of the Company) has seen both the entry of new substantive institutions onto the Blue Energy share register and existing Institutional shareholders enhancing their positions on the Register. The Institutions on Blue Energy's share register now include: Regal Funds Management, IFM Investors, CVC Limited, Eley Griffiths Group Limited, Ellerston Capital Limited, Thorney Investment Group, Greig and Harrison Pty Ltd. This is seen as a vote of confidence in the Company, recognition of the growth potential in the sector and confirmation of the value of gas in the short, medium and longer term.

### **Gas Commercialisation**

Blue continues to make progress on gas commercialisation for its gas resources ATP814 and ATP854 in Queensland's Bowen Basin. Whilst the pace of this progress has been frustratingly slow, buyers have become more sharply focused on securing long-term gas

reserves due largely to the sustained recovery in the oil price, continued stellar growth in Chinese gas demand, forecast global LNG supply shortfall in 2021 and the realization of gas buyers that imported LNG to Australia will be at prices in excess of A\$10/GJ.

### **Northern Territory releases Implementation Plan to lift Fracture Stimulation Ban**

The Northern Territory Government has released its Implementation Plan for the 135 Recommendations generated by the Pepper Inquiry into Hydraulic Fracture Stimulation and the Shale Gas industry. The 135 recommendations cover issues related to water, land, greenhouse gas emissions, public health, aboriginal people and their culture and social impacts. Interestingly, whilst the Pepper Inquiry was specifically formed to address the Shale Gas Industry and Fracture Stimulation, many of the resultant recommendations are being applied to general surface activities that occur in “conventional oil and gas” exploration and production activities. Indeed, the NT Government will not legislatively isolate Shale Gas Activities from “conventional oil and gas activities” within the Petroleum Act through duplicate legislation. In effect, a consequence of the Pepper Inquiry has been to catch all oil and gas activities in the legislation that will be enacted to implement the Pepper Recommendations. This also includes amendments to the Water Act, which also covers mining operations. So, the Pepper Inquiry has not only resulted in heavy regulation of the shale gas sector, but also captures both the conventional oil and gas Industry and the mining industry in many of the legislated requirements for social impact studies, water baseline studies, weed baseline studies and methane emission baseline studies. Yet the Government will exclude the agriculture and cattle industries from these requirements when arguably their impacts are larger than the oil, gas and mining sectors (for methane emissions, weed distribution and aquifer impact). Furthermore, the NT Government, in its initial acceptance of all 135 Pepper Inquiry recommendations, identified areas where fracture stimulation activities will not be allowed. These areas total some 49% of the Territory’s land area, but as yet there is no definitive map showing these “no-go” areas.

The Implementation Plan dictates that the new Legislation affecting the exploration phase of activity will be in place by end December 2018, with Legislation affecting Production activities in place by end December 2021.

The additional costs of Government regulation and compliance foisted on an industry with a very good environmental record, will be passed on to gas customers as higher gas prices. This at a time when other jurisdictions are trying to reduce gas prices and ensure manufacturing and businesses dependent on gas as a feed stock, remain viable and continue to provide people with employment and governments with tax revenues.

### **Galilee Basin activity**

Operators adjacent to Blue Energy’s ATP813P have in recent months undertaken drilling and testing activity to assess two distinct and separate plays. To the west, Galilee Energy has drilled two lateral wells into the Betts Creek Beds (Late Permian Coal Measures) and have recently put these wells on extended production test. Early reports by the Operator suggest that water

production rates from the coals are very encouraging and commensurate gas flows from the coal seams are expected by the Operator. A successful gas flow in this adjacent permit will add value to Blue Energy's existing 838 PJ of Contingent Resources in ATP813P.

To the northeast of Blue's ATP813P, Comet Ridge has drilled a conventional sandstone play targeting the Lake Galilee Sandstone. The well flowed gas from the primary target using underbalanced drilling techniques and this has resurrected the latent conventional gas potential of the Galilee Basin. Blue is undertaking a review of the Carboniferous aged section over ATP813P to gauge potential prospectivity of this play in the permit.

## **Global Energy**

### **Oil price**

Whilst Saudi, the UAE and Kuwait ramped up oil production in June, production losses are beginning to materialise from Venezuela and Iran (sanctions).

Accordingly, global oil supply and demand are fundamentally in balance (that is the surplus of 2015 -2017 is largely gone) and now the supply nuances of threatened Iranian sanctions,

Venezuelan production decline and US shale capacity to respond, are neatly set against Chinese demand fluctuations. What has not yet not been factored into the supply equation however, is Iran's potential response to sanctions, given they are a key custodian of safe passage of oil through the Straits of Hormuz.

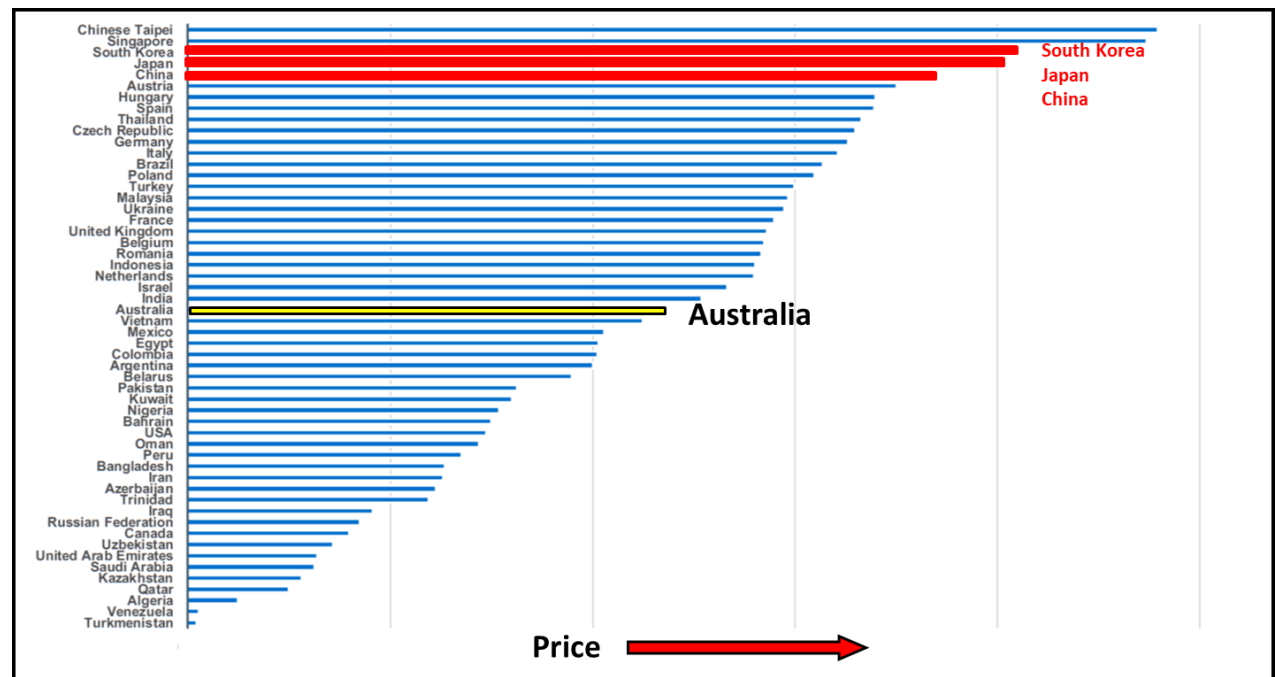
The lead up to US mid-term elections may also influence short term supply adjustments on price, with President Trump tapping the Strategic Petroleum Reserve in the US for 30 million barrels, to ease price pressure.

### **LNG and Global Gas Pricing**

The oil price crash of 2014-2017 resulted in a CAPEX drought on new oil and gas supply projects for that period. Given the price linkage between oil and LNG, that CAPEX drought flowed through to new liquefaction projects. The result has been that no new Final Investment Decisions on new LNG liquefaction capacity have been taken over the last four years. This is against a backdrop of projected rising global demand for gas, in particular as China (and soon India) battles to clean up air quality by switching to gas. As a result, it is suggested by some commentators that there will be a global LNG shortfall in 2021 and producers are now scrambling to take advantage of this window from existing capacity. This is particularly salient as the underutilized capacity on Curtis Island (6 trains running at a combined average of 70% capacity), could be used to supply this void, assuming they have access to sufficient feed gas. It is expected there will be significant effort applied to accessing feed gas supply for this near-term market opportunity.

There was a lot of commentary from gas users and critics of the east coast LNG industry late in 2017 that customers in Japan were paying less than Australian gas consumers, despite Japan having no indigenous gas supply and how fair is that? The International Gas Union published its global wholesale gas price survey for 2017 this month, with Figure 1 below showing clearly that

claims of lower Japanese wholesale gas prices are incorrect. It exemplifies the distortion of fact that occurs in the partisan rhetoric around domestic gas prices in Australia, which is designed to put pressure on Government to intervene in the export gas market to save companies whose Boards failed to ensure they had sufficient gas locked in for their business to maintain viability.



**Figure 1: Global Wholesale Gas Price Comparison 2017. Source: International Gas Union 2018**

### East Coast Australian Gas Market

Interestingly the Australian Energy Market Operator (AEMO) issued its 2018 Gas Statement of Opportunity in June (GSOO), and whilst the headline release noted that it thought there was no longer a gas shortfall on the east coast (contrary to what it had described in its 2017 GSOO) in fact there would now be no shortfall until 2030. Of further interest however, once the data for AEMO's assumptions was released (several weeks after the initial report), was that it appears there have been some significant upgrades to previous reserves and resources that are nothing short of miraculous. These volumes are fed into AEMO's production forecast models which go into prediction of the demand/supply balance in future years and therefore are key to identifying potential gas shortfalls in the short, medium and long term.

Interestingly, included in the model's gas volumes are the Clarence- Moreton Basin in northern NSW (Contingent and Prospective Resource), a huge increase in the Cooper Basin (SA & Qld) Contingent and Prospective Resources (latent shale gas volumes of 128,133 PJ), Narrabri CSG (NSW) volumes and a big upside to Cooper Basin 2P reserves, together with Prospective Resource volumes in the Gippsland Basin (presumably undiscovered at this time).

Of concern is the rapid change in AEMO's forecast, from a shortage by 2019 (in the 2017 GSOO) to balanced supply and demand for the next 12 years (in the 2018 GSOO).

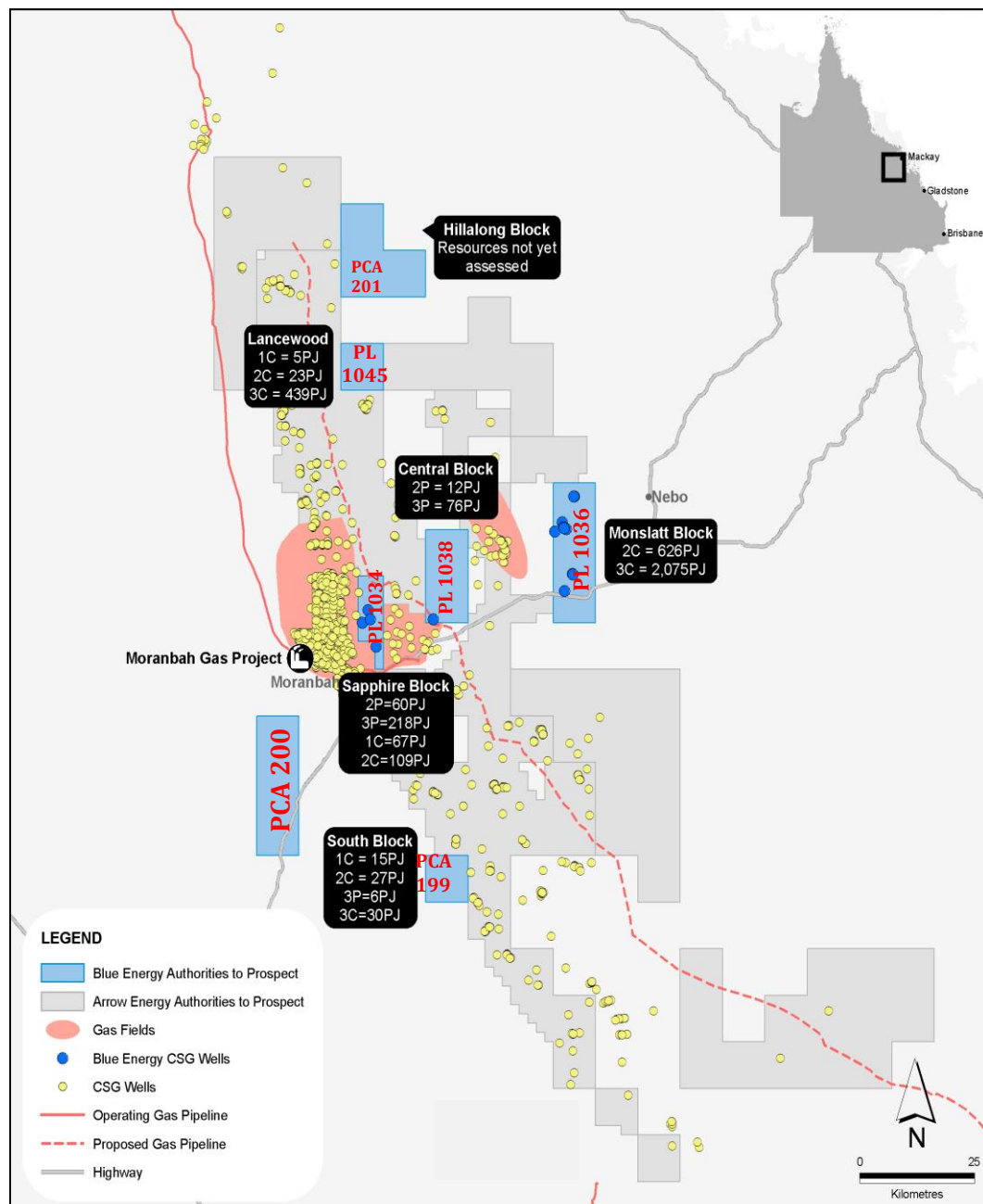
## Proven Basins

### Bowen Basin, Queensland

#### ATP814P (Blue Energy 100% and Operator)

The four Production Licence Applications lodged by Blue Energy with the Queensland Government are progressing with the Government assisting in convening combined Native Title Agreement discussions (to cover all four production licence applications) with Traditional Owners. Activities remain on foot to plan for the required environmental studies to secure these new Environmental Authorities. These activities will be undertaken in parallel with the ongoing commercial negotiations.

**Figure 2: ATP814P Bowen Basin Queensland showing PL and PCA Applications**



The permit currently has certified 2P reserves of 71 PJ and 3P reserves of 298 PJ (as independently estimated by Netherland, Sewell and Associates (NSAI)). There is also significant upside within the other constituent blocks comprising the Permit with a combined 3,011 PJ of Contingent Resources estimated by NSAI.

Blue continues to work with the APA Group and other parties in the Bowen Basin to secure the best pipeline route to deliver gas into the southern market. It is noted that APA is the subject of a takeover offer by Hong Kong based CK Infrastructure Holdings group, on which both the ACCC and FIRB will have input.

## Surat Basin, Queensland

### ATP854P (Blue Energy 100% and Operator)

The Company's discussions continue with several different parties to commercialise Blue's gas resources contained in ATP854P.

Blue has four Potential Commercial Area Applications (PCA's) over the permit which will secure the acreage and allow work to be undertaken to grow gas reserves and resources in parallel to the continued marketing of the gas resources to potential gas buyers.

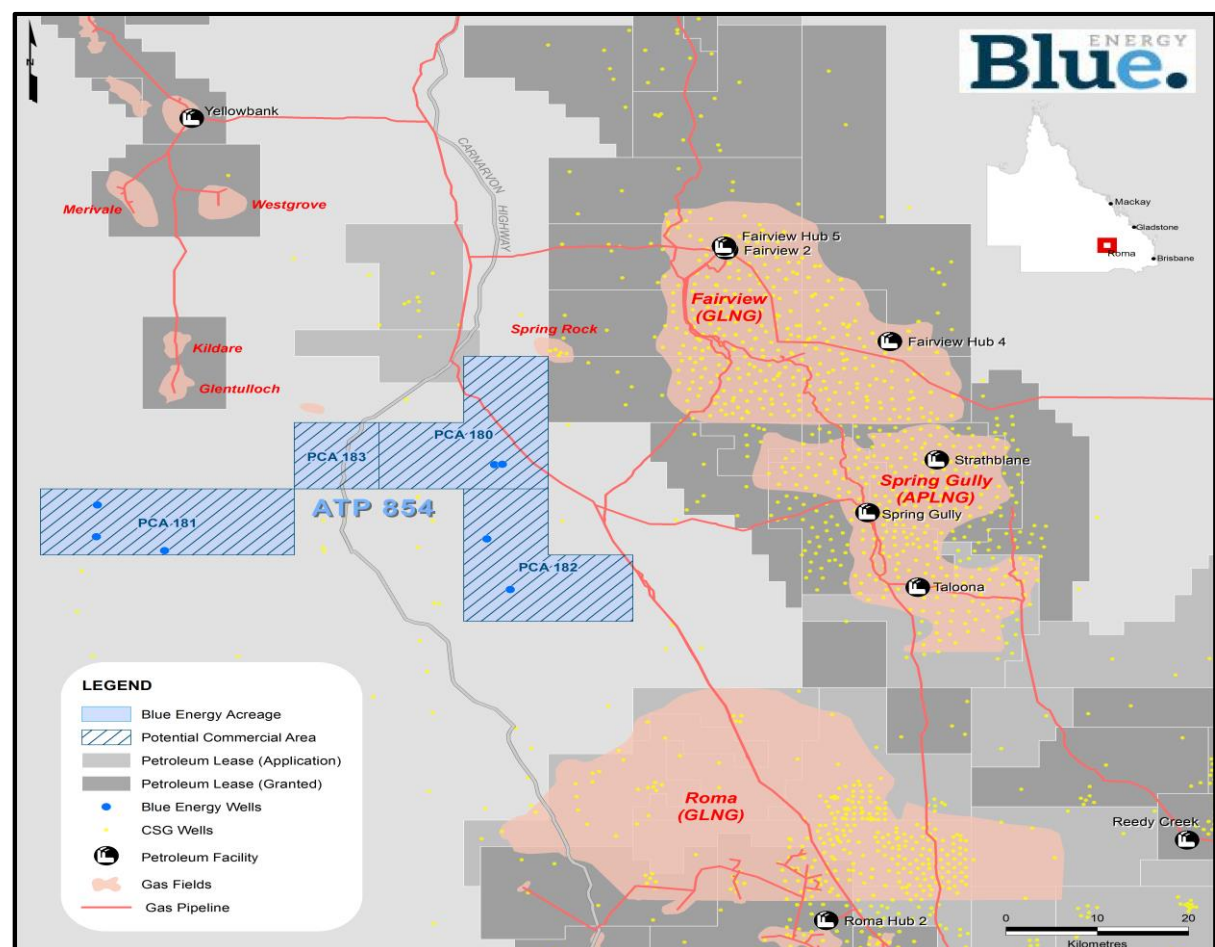


Figure 3: ATP854P Surat/Bowen Basin



## **Emerging Basins**

### **Greater McArthur Basin**

#### **(various permits and equities levels - Blue Energy Operator)**

Pending formulation and discussion with industry of the details of the Legislative reforms to accommodate the 135 Recommendations of the Pepper Inquiry, Blue Energy has in force (until February 2019), suspension of its work program obligations in EP's 200, 205 and 207. Whilst the NT Government has stated that this new Legislation will be in place by end December 2018, Blue will seek further suspensions should the timeframe for this Legislation slip and as a result, jeopardise activities for the 2019 dry season.

Blue is awaiting better definition from the NT Government on exactly which areas of the Northern Territory that Fracture Stimulation activities will not be allowed.

#### **Galilee Basin Queensland ATP813P (Blue Energy 100% and Operator)**

Blue Energy has over 2,000 km<sup>2</sup> in the Galilee Basin of Central Queensland. Exploration work conducted by the Company to date has resulted in Netherland, Sewell and Associates (NSAI) of Dallas, estimating 838 PJ (net to Blue Energy) of Contingent Resources within the Betts Creek CSG play. Recently, adjacent operators have been testing the Betts Creek play using lateral/horizontal drilling techniques and have demonstrated good permeability results with sustained high water rates from the laterals. In addition to the east, the results of the Albany 1 well drilled by the operator of ATP 1015, has resulted in a gas flow of 230,000 cuft/day from the Lake Galilee Sandstone, which is of Carboniferous age. This clearly identifies a deep hydrocarbon petroleum system and opens up a new play in the Basin. Blue is investigating the distribution of this play.

## **CORPORATE**

### **Cash Position**

Cash on hand at 30 June 2018 was \$2.7 million.

Permit	Block	Assessment Date	Announcement Date	Methodology	Certifier	1P (PJ)	1C (PJ)	2P (PJ)	2C (PJ)	3P (PJ)	3C (PJ)
ATP854P		30/06/2012	19/03/2013	SPE/PRMS	NSAI	0	22	0	47	0	101
ATP813P		29/10/2014	30/10/2014	SPE/PRMS	NSAI	0	0	0	61	0	830
ATP814P	Sapphire	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	66	59	108	216	186
ATP814P	Central	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	50	12	99	75	306
ATP814P	Monslatt	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	0	0	619	0	2,054
ATP814P	Lancewood	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	5	0	23	1	435
ATP814P	South	30/06/2013	29/07/2013	SPE/PRMS	NSAI	0	15	0	27	6	30
<b>Total (PJ)</b>						<b>0</b>	<b>158</b>	<b>71</b>	<b>984</b>	<b>298</b>	<b>3,942</b>
<b>Total MMBOE</b>						<b>0</b>	<b>27</b>	<b>12</b>	<b>168</b>	<b>51</b>	<b>672</b>

**Table 1: Blue Energy net Reserves and Resources**

### **Listing Rule 5.42 Disclosure**

The estimates of reserves and contingent resources noted throughout this Quarterly Activities report have been provided by Mr John Hattner of Netherland, Sewell and Associates Inc (NSAI) and were originally reported in the Company's market announcements 25 January 2012, 26 February 2013 and 19 March 2013. NSAI independently regularly reviews the Company's Reserves and Contingent Resources. Mr Hattner is a full time employee of NSAI, has over 30 years' of industry experience and 20 years' of experience in reserve estimation, is a licensed geologist and a member of the Society of Petroleum Engineers (SPE), and has consented to the use of the information presented herein. The estimates in the report by Mr Hattner have been prepared in accordance with the definitions and guidelines set forth in the 2007 Petroleum and Resource Management System (PRMS) approved by the SPE, utilizing a deterministic methodology. Blue Energy confirms that it is not aware of any new information or data that materially affects the information included in any of the announcements relating to ATP 813P, 814P or 854P referred to in this report and that all of the material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed.



## Petroleum Tenements Held

Permit	Location	Interest Held Previous Quarter	Interest Held Current Quarter
ATP613P	Maryborough Basin (Qld)	100%	100%
ATP674P	Maryborough Basin (Qld)	100%	100%
ATP733P	Maryborough Basin (Qld)	100%	100%
ATP656P	Cooper Basin (Qld)	100%	100%
ATP657P	Cooper Basin (Qld)	100%	100%
ATP658P	Cooper Basin (Qld)	100%	100%
ATP660P	Cooper Basin (Qld)	100%	100%
ATP813P	Galilee Basin (Qld)	100%	100%
ATP814P	Bowen Basin (Qld)	100%	100%
ATP854P	Surat Basin (Qld)	100%	100%
ATP1112A	Carpentaria Basin (Qld)	100%	100%
ATP1114A	Georgina Basin (Qld)	100%	100%
ATP1117A	Georgina Basin (Qld)	100%	100%
ATP1123A	Georgina Basin (Qld)	100%	100%

*Permit	Location	Interest Held Previous Quarter	Interest Held Current Quarter	Comment
EP199A	Wiso Basin (NT)	10%	10%	See Note 1
EP200	Wiso Basin (NT)	10%	10%	See Note 1
EP205	Wiso Basin (NT)	10%	10%	See Note 1
EP206A	Wiso Basin (NT)	10%	10%	See Note 1
EP207	Wiso Basin (NT)	10%	10%	See Note 1
EP208A	Wiso Basin (NT)	10%	10%	See Note 1
EP209A	Wiso Basin (NT)	10%	10%	See Note 1
EP210A	Wiso Basin (NT)	10%	10%	See Note 1
EP211A	Wiso Basin (NT)	10%	10%	See Note 1

### Tables 2 and 3: Petroleum Tenements held by Blue Energy and its subsidiaries

\*Exploration blocks Blue is farming into

Note 1: Subject to Farm in Agreement which upon completion of the seismic work program will result in Blue Interest becoming a 50% equity participant

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