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## SIGNIFICANT HYDROCARBON POTENTIAL IN JACKA'S RUHUHU BASIN EXPLORATION PROJECT IN TANZANIA

### HIGHLIGHTS:

- **Prospective Resource Assessment**
  - 3.6 billion BOE combined potential identified, net to Jacka:
    - 263 million barrel conventional oil potential
    - 20 Tcf unconventional gas + liquids potential (shale/tight gas and coal seam methane)
  - Additional conventional gas potential
- **Exploration operations about to commence**
- **Farmout process underway**
- **Early gas market opportunity identified**

Jacka Resources Limited ("Jacka" or the "Company") (ASX: JKA) is pleased to provide an update on its 100%-owned Ruhuhu Licence in south-west Tanzania. The 10,343km<sup>2</sup> Ruhuhu Licence was awarded on 19 March 2013 and is currently in Year 2 of the initial 4-year Term.

### Prospective Resource Assessment

Since signing the Ruhuhu Production Sharing Agreement ("PSA") in 2013 Jacka has pursued a focussed, value-adding program of geotechnical studies to create a solid technical foundation for the exploration project (Figure 1). A recent comprehensive integration of this work has significantly matured the Ruhuhu exploration plays (described in ASX release June 2013). This has allowed the resource potential within the licence boundaries to be probabilistically estimated, based on similar plays in analogue basins.

As at 24 October 2014, the Ruhuhu Licence's unrisks prospective resources net to Jacka<sup>1</sup> are provided as follows:

Play	Prospective Resources		
	Low Estimate	Best Estimate	High Estimate
Conventional Neogene oil	70 MMBO	131 MMBO	263 MMBO
Unconventional shale/tight gas	1.8 Tcf	6.1 Tcf	18.4 Tcf
Unconventional coal seam gas	0.8 Tcf	1.3 Tcf	1.8 Tcf
Total MMBOE*	490 MMBOE	1,374 MMBOE	3,614 MMBOE

\*6,000scf=1BOE

<sup>1</sup> Jacka's working interest has been adjusted for 12.5% royalty of total oil/gas production due to the Government of Tanzania. In accordance with the terms of the PSA, the working interest and the economic interest may differ depending on prevailing estimates of prices and costs of future development projects.

### Cautionary Statement

The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of

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discovery and a risk of development, which are unquantified but would be considered high at this early stage of exploration. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Conventional gas potential is also recognised in the Karoo section of the Ruhuhu Licence. However, this cannot be reasonably quantified as yet. The Tanzania Petroleum Development Corporation (TPDC) retains the right to acquire 20% equity in any future development.

### Operations to commence

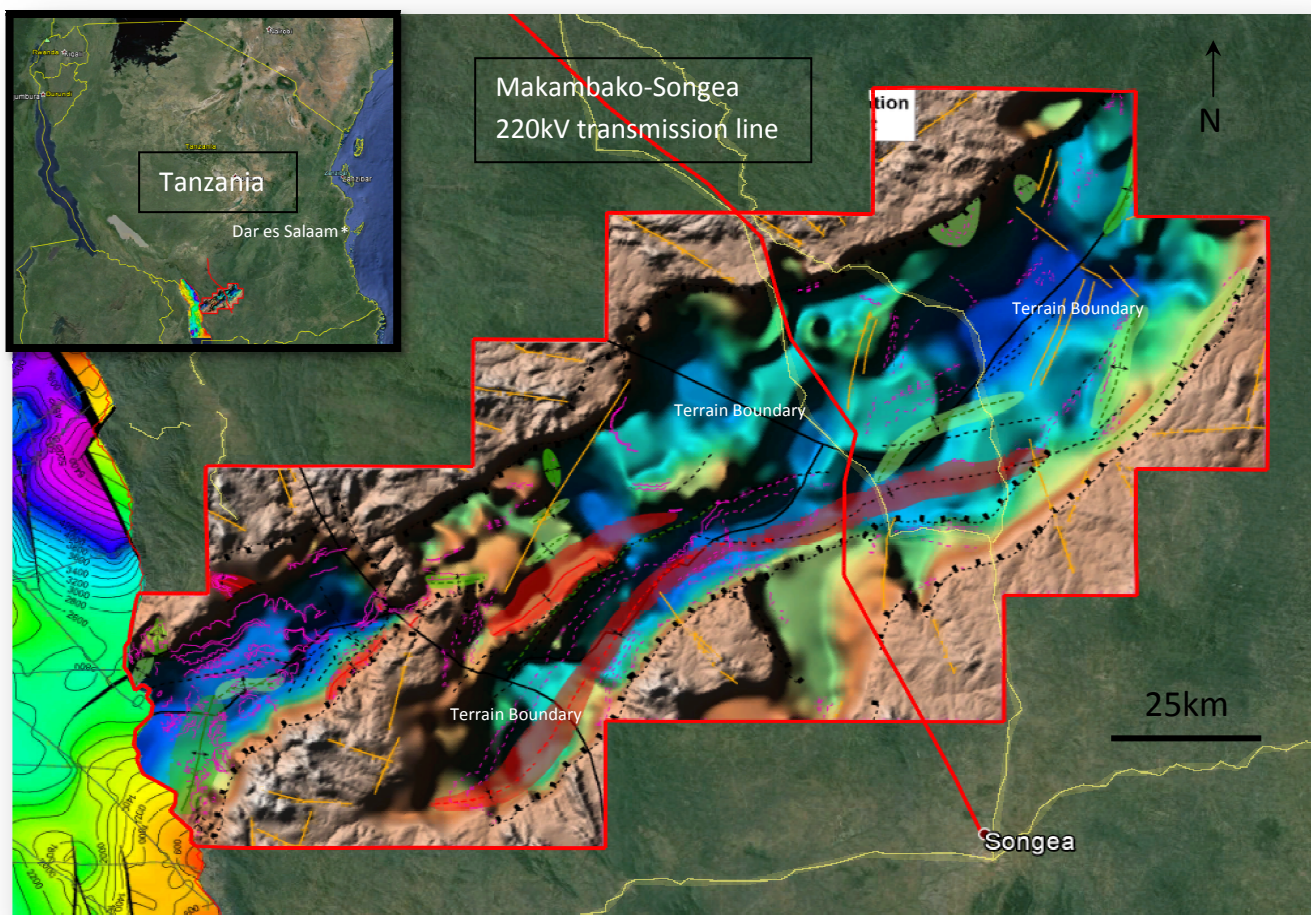
The Ruhuhu project is now moving to operational phase, aiming to quantify the risks associated with each of the identified plays. Geological field work, an airborne gravity survey and a seismic survey are planned for the balance of 2014 and the following year, with an exploration well planned to be drilled on any identified targets before March 2017.

### Farmout

A farmout process has recently been initiated and a US-based consultancy has now been engaged to assist Jacka identify potential partners to work with it on the Ruhuhu project.

### Commercialisation

A number of commercialisation options are available to the project, depending on the type of hydrocarbon. One potential commercialisation route for Ruhuhu gas resources has recently emerged, with Tanzania's national electricity company Tanesco awarding a contract to connect the south west Tanzania township of Songea to the Tanzanian national electricity grid. The 220kV electricity transmission lines will cross the middle of Ruhuhu Licence, providing a potential opportunity for power generation for all of Tanzania from future Ruhuhu gas (Figure 1). Transmission line construction is expected to commence in March 2015.



**Figure 1. Nyasa and Ruhuhu Basins depth to Basement maps with Ruhuhu surface features. Note Makambako-Songea transmission line planned route through the Ruhuhu Licence.**

### Basis for Resource Estimates

The Prospective Resource estimates as presented have been generated at the play level for the Ruhuhu Licence, which is appropriate at this early stage of the project. A high level of rigour has been applied to arrive at the peer-reviewed estimates. The summed prospective resource estimates have not been adjusted for risk as the plays have no co-dependent risk elements.

Shale gas and tight gas resource estimates are based on a probabilistic range of areas likely to contain the thick early Permian high TOC shales and siltstones. The areal GIIP and recovery factors that have been applied to estimate prospective resources were drawn from the US Energy Information Agency and the British Columbia (BC) Ministry of Energy and Mines for similar plays and resource densities in the Main Karoo Basin of South Africa and the Deep Basin BC, respectively.

Coal seam gas prospective resources have similarly been estimated using areas anticipated to contain thick coals within a depth range considered viable for commercial CSG development. GIIP yields were derived from the measured CSG holding capacity of the Ruhuhu coal while a range of recovery factors were drawn from a number of CSG developments in early Permian coals from around the world.

The conventional Neogene oil prospective resource estimates are a combination of play-level estimates and lead-level estimates. Within the Ruhuhu delta, resources have been estimated on the basis of average size and yields of the Mputa, Waraga and Nzizi discoveries in the Albertine graben of Uganda. These discovered fields – the first in the East African Rift - lie in a highly analogous Neogene delta setting with which Jacka is very familiar.

A number of Karoo structural closures are apparent at surface in the western licence area and have been probabilistically modelled. These structural leads account for approximately half of the conventional oil Prospective Resource for the Licence.

It should be noted for the summed prospective resources that the Low aggregate quantities may be very conservative estimates and the High aggregate quantities may be very optimistic due to portfolio effects.

### Glossary

TOC: Total Organic Carbon

GIIP: Gas Initially In Place

CSG: Coal Seam Gas

## Tanzania Overview

The Ruhuhu Block is located in south-western Tanzania, adjacent to Lake Nyasa. Tanzania has recently become the focus of the international oil and gas community. The country has attracted industry attention in recent years with leading companies such as Petrobras, Shell, Statoil, ExxonMobil and BG entering the country to explore offshore and independents such as Beach Energy, Heritage and Maurel et Prom onshore (Figure 2).

Between 2010 and March 2013, an estimated 33.7 Tcf in recoverable gas resources have been discovered offshore Tanzania and 8 Tcf onshore, with further drilling continuing through 2014 and plans underway for LNG exports (Statoil/Exxon/BG/TPDC).

Tanzania is still considered to be under-explored, particularly onshore, and has further significant exploration potential within both the offshore deep water blocks and the numerous onshore basins, such as the Ruhuhu Basin, located in the central and western parts of the country.

The rapid expansion of exploration activity offshore Tanzania has not only led to discoveries but also greater in-country operational capacity arising from the presence of many leading multinational exploration service providers. This in-country capacity increases Jacka's ability to undertake a cost-efficient exploration program and to attract farm-in partner interest.

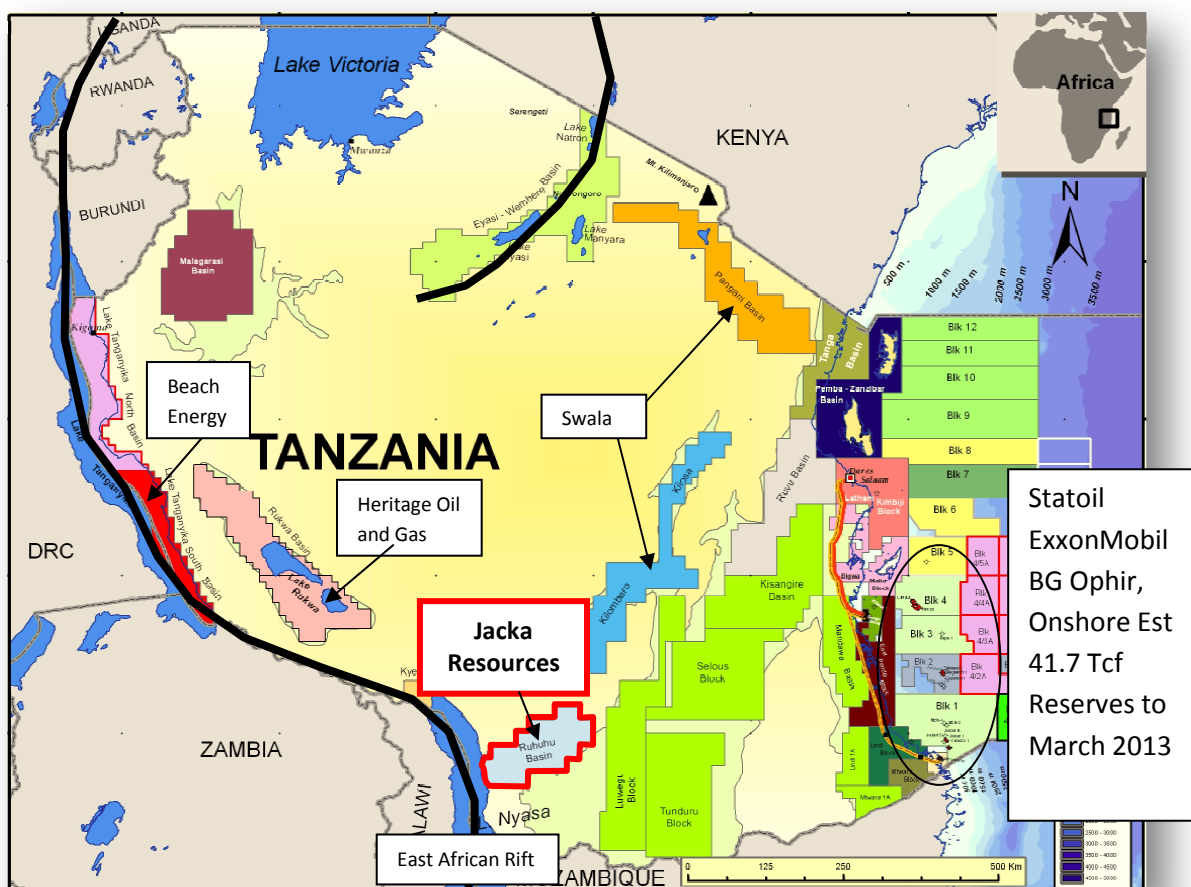


Figure 2: TPDC Activity Map May 2013

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**Qualified Petroleum Reserves and Resource Evaluator Requirements**

The resource statement contained in this report is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of Mr Justyn Wood, Jacka's Technical Advisor (B.Sc. Geophysics, MAAPG, MAICD and over 20 years of experience in the exploration for, appraisal and development of petroleum resources) who has sufficient relevant experience to qualify as a Qualified Petroleum Reserves and Resources Evaluator (QPPRE) under ASX Listing Rules. Mr Wood is a consultant to the company. Mr Wood consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.