

## Pilot Energy Ltd

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Announcement to ASX

30 August 2017

## EP416/480 Update

### HIGHLIGHTS

- Empire Oil & Gas NL elects to remain as working interest partner
- Preparations ongoing for geochemical survey over Leschenault conventional gas prospect
- Leschenault thought to be the largest identified, undrilled structure within the Perth Basin
- Independent expert confirms prospective resources of up to 1.6 TCF gas

Pilot Energy Ltd (the **Company**, ASX: PGY) is pleased to advise that Empire Oil & Gas NL (**Empire**, ASX: EGO) has elected to remain as a 40% working interest partner in the EP416 and EP480 exploration permits. Under the terms of the Farmout Agreement between Pilot and Empire, dated 1 September 2015, Pilot has fully carried Empire's share of permit-related costs through to 31 August 2017. Within the same period Empire has held an option to convert its working interest in the permits to a royalty interest. Empire has now confirmed that it intends to retain its working interest in the permits, funding its share of the low-cost work program from 1 September 2017 onwards.

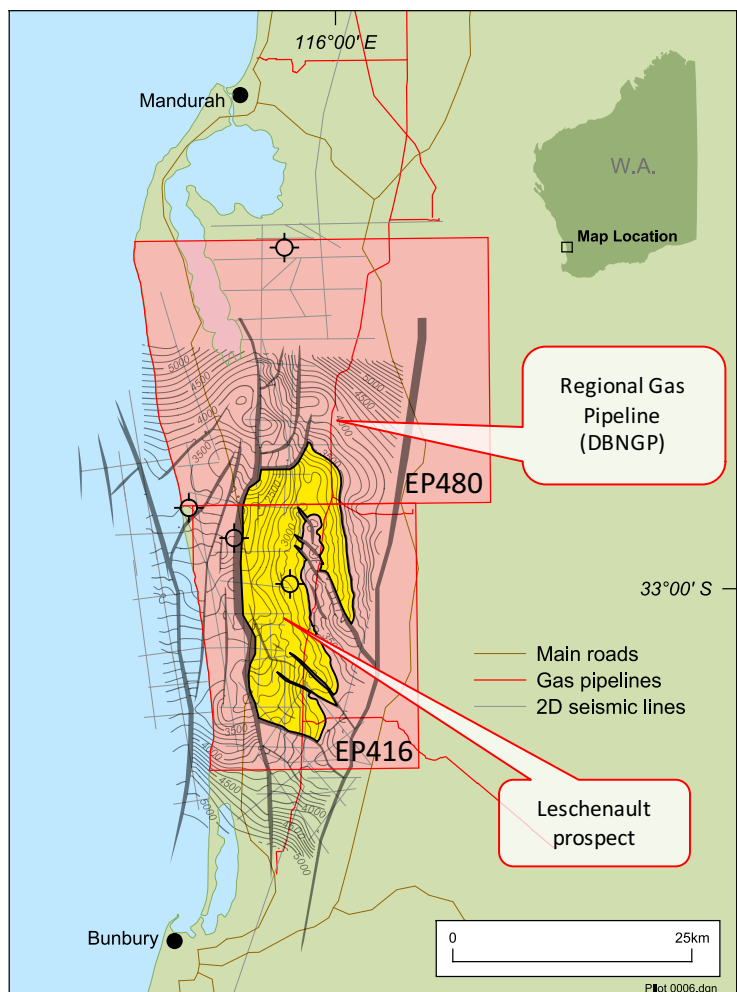
Pilot Energy is pleased to continue its close partnership with Empire as the Joint Venture progresses exploration of the EP416/480 permits, and the huge Leschenault conventional gas prospect.

### Leschenault Prospect Summary

The Leschenault prospect is located across permits EP416 and EP480 in the southern Perth Basin. The Perth Basin is a proven hydrocarbon province that has been subject to significant industry interest and activity, particularly since the Waitsia gas/condensate discovery by AWE Limited (2014). The basin is generally prospective for gas, with some oil/condensate, and is well served by gas distribution infrastructure, with the Dampier to Bunbury Natural Gas Pipeline (DBNGP) running almost the full extent of the basin (and running directly across EP416 and EP480).

Exploration of the basin to date has been primarily focused to the north, with the southern portion having only been lightly explored. However, the drilling that has occurred in this part of the basin confirms the presence of the key components for a working petroleum system, as evidenced by the Whicher Range gas field to the south.

Independent oil and gas advisory firm, RISC Operations Pty Ltd (**RISC**), completed an audit of the Company's internal estimate of prospective resources



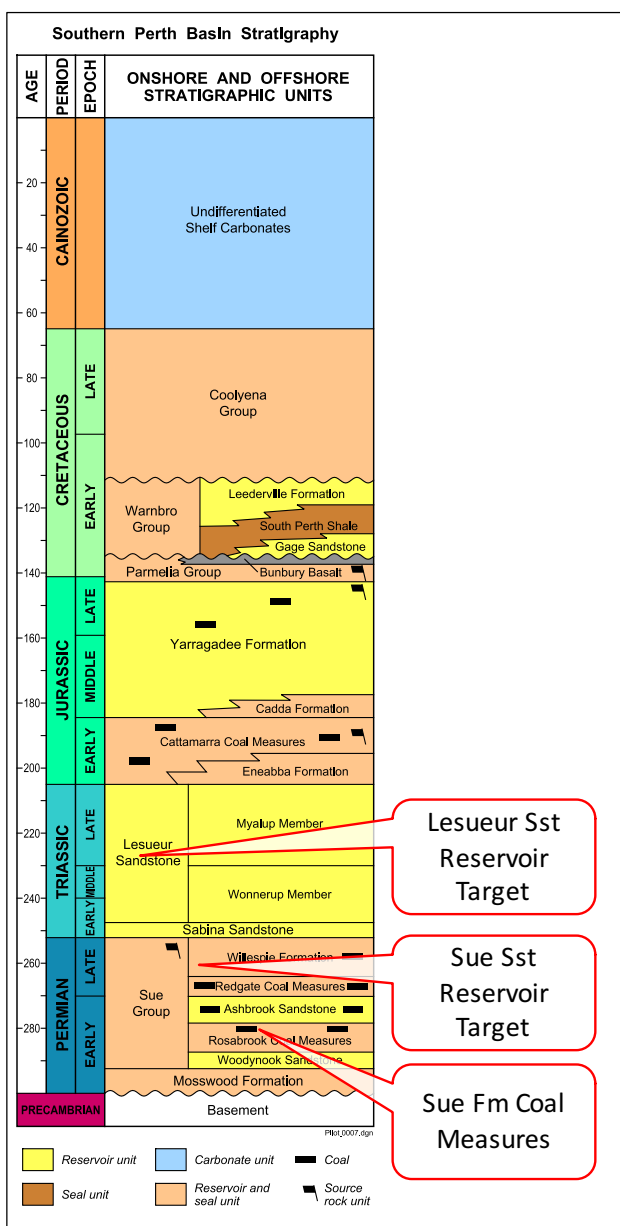
for the Leschenault prospect, located in exploration permits EP416 and EP480 (refer to Company announcement of 7 November 2016).

In its report, RISC confirm the prospective resources of the two main reservoir target intervals, as follows:

Reservoir	Gross (100%) Bcf			Net to Pilot (60%) Bcf		
	Low	Best	High	Low	Best	High
Lesueur Sandstone	150	435	970	90	260	580
Sue Sandstone	120	290	625	70	175	375

Leschenault is a very large, robust structure that covers an area of up to 240 km<sup>2</sup> and is well defined by seismic data. The structure is a “three-way dip” feature that relies on closure to the west by a major bounding fault and exhibits two culminations, both of which offer potential drilling locations for a vertical well to test the two conventional reservoir targets. Importantly for commercialisation of a discovery,

these locations are just a few kilometres to the west of the regional gas pipeline.



The two main reservoir objectives are the Permian Sue Sandstone and the Triassic Lesueur Sandstone, both of which are known to be thick and laterally extensive. The Permian Willespie Formation at Whicher Range is a direct analogue for the Sue Sandstone, although superior reservoir properties are expected at Leschenault due to the shallower depth of burial. Target depths for the Lesueur and Sue Sandstones are approximately 500m and 2,500m respectively, whereas the Whicher Range reservoir is at approximately 4,000m. The hydrocarbon source for the region is the extensive Sue Formation coal measures, equivalent to the Irwin River Coal Measures that source much of the gas in the north of the Perth Basin. The coal measures are buried at great depth to the east and west of the Leschenault structure, and are thermally mature for gas generation. The Lake Preston-1 well encountered the Sue Formation from approximately 4,000m to TD at 4,565m, encountering gas shows and coal beds with TOC of up to 54%. The Sue Formation is currently within the gas generation window at the Lake Preston-1 location.

Of the four wells within the permits, Preston-1 (1966) and Lake Preston-1 (1966) were drilled off-structure and did not test valid prospects. However, Lake Preston-1 did encounter gas shows in Sue sandstones. The Pinjarra-1 well (1965) did not reach the Sue Sandstone, reaching TD early due to an interpretation error.

The most relevant well was not an exploration well but was drilled in 2012 as part of the Southwest Geosequestration Hub project, as a stratigraphic test. GSWA Harvey-1 did not reach the Sue

Sandstone primary reservoir objective, but did intersect the Lesueur Sandstone, with excellent porosity evident (up to 20%). However, the well intersected the reservoir only on the flank of the Leschenault structure, and significant Lesueur potential therefore exists updip of the Harvey-1 well location, towards the structural crest.

Reservoir top seal is provided by the Eneabba Formation shales for the Lesueur Sandstone, and by intraformational shales for the Sue Sandstones. The latter are proven at Whicher Range, and **RISC note in their report** that “*the Whicher Range field is an encouraging analogue and demonstrates the Sue Sandstone play works in an adjacent basin sector.*”

The main geological risk associated with Leschenault is one of cross-fault seal, i.e. whether the western bounding fault has sealing capacity to retain hydrocarbon gas migrating in to the structure. In order to address this risk a low cost geochemical survey is planned for the second half of 2017.

The aim of the survey is to identify anomalies due to micro-seepage of hydrocarbon components from depth, that are broadly conformable to the Leschenault area of structural closure; indicating that one or both of the reservoir targets are gas-bearing. The survey will also focus on the surface location of the bounding fault, to determine whether macro-seepage of gas is occurring through the fault system.

It is hoped that the survey will commence within the next two months, subject to regulatory approvals being granted, with results be available before year-end. A conformable geochemical anomaly over the prospect will greatly increase the probability of exploration success, and greatly enhance the marketability of the prospect to potential farmin partners, in order to fund exploration drilling.

Working interests in both EP416 and EP480 are as follows:

Pilot Energy Ltd	60% (Operator)
Empire Oil & Gas NL	40%

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## Enquiries

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**About Pilot Energy:** Pilot Energy Ltd is an emerging junior oil and gas exploration company that is implementing a low-cost, counter-cyclical strategy to develop a portfolio of high quality oil and gas exploration assets. The Company’s aggressive new ventures program has rapidly resulted in acquisition of material working interests in the WA-481-P, WA-507-P, WA-503-P and EP416/480 exploration permits, located offshore and onshore Western Australia, in addition to a minor working interest in the EP437 permit. Key to Pilot Energy’s strategy is minimisation of project entry cost and work commitments, while allowing sufficient time to add value through desktop studies prior to seeking farming partners to fund seismic and/or drilling. Pilot Energy works closely with industry partners such as seismic contractors in order to develop creative pricing models for services that help to reduce the Company’s upfront cash investment