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8 November 2021

The Manager  
The Australian Securities Exchange  
The Announcements Office  
Level 4/20 Bridge Street  
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Dear Sir/Madam

### **HIGH POTENTIAL UPGRADE IN THE COOPER BASIN'S ALFAJOR PROSPECT**

Key Petroleum Limited attaches herewith an ASX Announcement containing an update on the Company's Cooper Eromanga Basin Permits.

This announcement has been authorised by the Managing Director.

For more information please contact:

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ASX Announcement

8 November 2021

## HIGH POTENTIAL UPGRADE IN THE COOPER BASIN'S ALFAJOR PROSPECT

- High quality 3D seismic has uncovered data which indicates an early formed structure, commonly regarded as an important success factor for Permian level prospects in the Cooper Basin.
- Conventional sandstone reservoirs within the regionally productive Toolachee Formation are expected.
- Prospective Resources for recoverable gas are estimated ranging from:
  - **P90 33.9 Bcf P50 97.1 Bcf P10 227.4 Bcf and Mean 122.5 Bcf**
- Additional Prospective Resources can be ascribed within the prospect to prominent, overlying (shallower) closures at secondary objectives levels that include the Hutton Sandstone.
- A well location has been selected and permitting to support a test well is soon to commence.
- The Alfajor Prospect in the southern ATP 924 block in Queensland is 100% held by Key Petroleum.

**Note:** *Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a chance of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.*

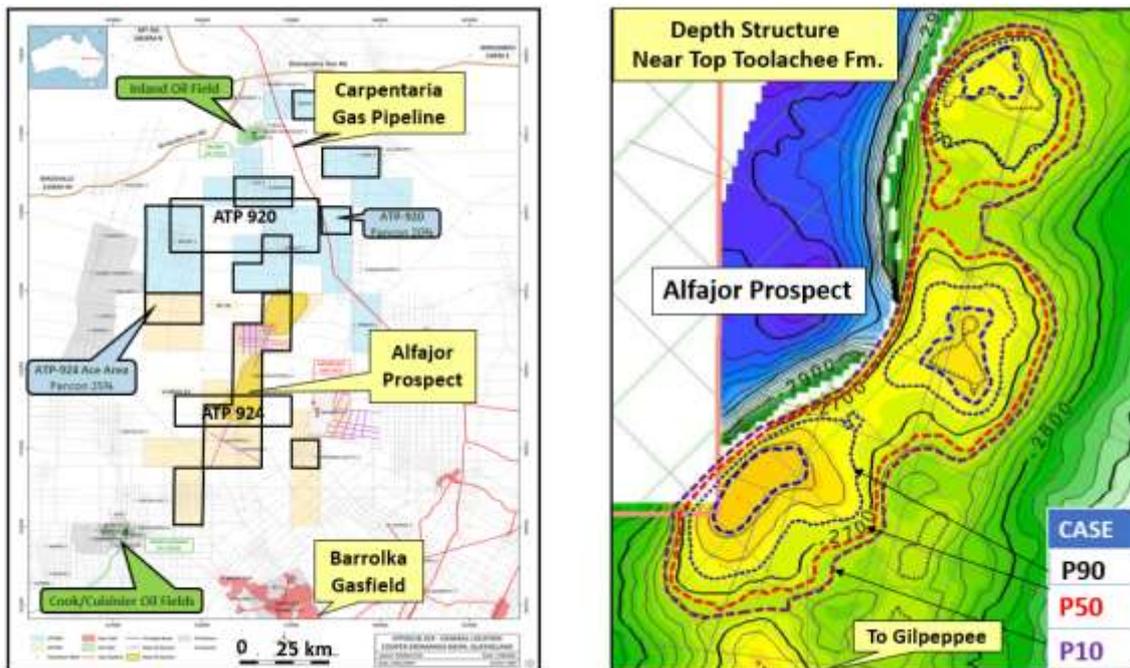
### Introduction

Key Petroleum Limited (Key or Company) has completed remapping of the Alfajor Prospect in its wholly owned and operated, southern ATP 924 project area in Queensland. The Company used good quality 3D seismic that covers the Alfajor structural trend and recognises the potential for similar, follow up structuring in the block that is covered by 2D seismic at this stage.

The remapping has resulted in a material upgrade to the recoverable gas resource potential within the primary conventional sandstone reservoir target for the area, the Toolachee Formation.

The Company is currently finalising a location to drill a moderate depth, circa 2,800 m well to evaluate the Alfajor Prospect. The Company anticipates concluding all necessary preparations including well planning and permitting within the next six months, allowing for drilling by mid-2022.

**Figure 1- Location and Structure Maps for the Alfajor Prospect**

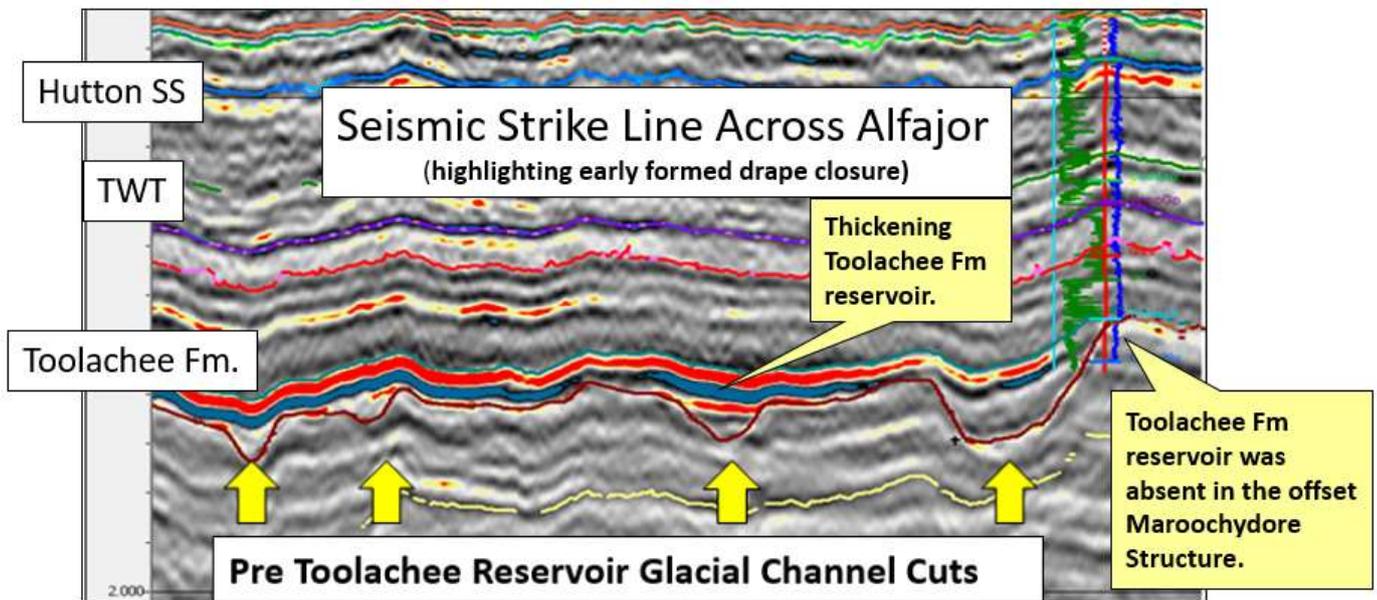


## Prospect Summary

The Alfajor Prospect is now mapped as a prominent, relatively high relief feature, with 4-way dip closure and enhanced trapping geometry due to drape closure over an early formed (Early Permian age), glaciated landscape comprised of mesas and intervening steep valleys. There is high certainty of the presence of this 4-way dip closure.

It is located adjacent to a proven, hydrocarbon generative depression of the Windorah Trough and is considered low risk for having received hydrocarbon charge given its position immediately flanking the interpreted kitchen area. Additionally, due to the strong shows of gas and some oil in offset wells Gilpepsee-2 and Maroochydore-1. Neither of these wells however, despite the obvious hydrocarbon charge, intersected effective reservoir, mainly due to structure formation at Gilpepsee post-dating reservoir quality destruction, due to high geo-temperatures and, at Maroochydore, lack of deposition of the primary target Toolachee Formation.

**Figure 2- Seismic Line showing Early Formed Trap, Reservoir Thickening and Overlying Secondary Target**



Unlike at Gilpeppee, Alfajor is shown on the 3D data to have the elements of an early formed trap due to drape closure over a prominent, Early Permian, glaciated landscape. This early trapping geometry is then enhanced and overprinted by the later structural episode that raised the Gilpeppee structure. The early drape closure means that Alfajor should have been positioned to capture migration of hydrocarbons from the earlier known phases of generation in the Windorah Trough, and in so doing, preventing cementation of the pores spaces in the rocks, preserving reservoir capability.

The closure as mapped has limited or no faulting effecting the main closure for which the potential gas resources have been estimated. As such, based also on regional well results, the presence of effective, shaley, drape, top seals for the main target reservoir level is considered likely.

Additionally, thickening of the Toolachee Formation reservoir into the channelled zones within the mapped closure is expected. Key's interpretation is for the formation and reservoir characteristics of the Alfajor trap to be analogous to the large (+460Bcf Toolachee Formation 2P gas reserves), developed and producing, Barrolka Gasfield located approximately 50km to the SSE.

The main exploration risk is nevertheless deemed to be presence of effective reservoir and the overall chance of an exploration drill success is estimated to be 30%.

The prospect is located within circa 40 km of the Carpentaria Gas Trunkline within which there is available carrying capacity and the Company expects in a success case, to be able to reach access and processing agreements as may be necessary with the Cooper Basin natural gas infrastructure Operators.

Should a conventional gas resource of the scale estimated (as detailed in Table 1 below) be discovered by the planned exploration well, then Key believes there is a high likelihood of a commercial development.

*The Prospective Resource estimates included here are Unrisked and have been estimated using Probabilistic methodology. The estimates have been prepared in accordance with the definitions and guidelines set forth in the 2007 Petroleum Resources Management System (PRMS) as revised in June 2018 and approved by the Society of Petroleum Engineers (SPE).*

*The Prospective Resources quoted are for hydrocarbon gases only, so are net of estimated inert gas content (with the P90 inerts % based on that published for the Barrolka Gas Field) and net to the Company's interest.*

**Table 1- Alfajor Prospect Unrisked Prospective Resources (net to Key)**

Prospective Resources	P90	P50 (Best Estimate)	P10	Mean
Gas In Place (Bcf)	48	132.2	301.6	163.6
Recoverable (Bcf sales gas)	33.9	97.1	227.4	122.5

**Competent Person's Statement:** The Prospective Resources disclosed in this announcement are based on and fairly represent information and supporting documentation prepared by, or under the supervision of, Mr John Begg. Mr Begg (BSc Geol) is a Geologist with more than 35 years' experience, practising in Petroleum Geology and is a member of the Petroleum Exploration Society of Australian (PESA) and the American Association of Petroleum Geologists (AAPG). Mr Begg has provided his prior written consent as to the form and context in which the information that relates to the Prospective Resources is presented in this announcement.

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