



16 June 2020

The Manager  
The Australian Securities Exchange  
The Announcements Office  
Level 4/20 Bridge Street  
SYDNEY NSW 2000

### **GAME CHANGING PERMIAN POTENTIAL**

Key Petroleum Limited attaches herewith an ASX Announcement pertaining to its activities in the Perth Basin.

This announcement has been authorised by the Managing Director.

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# Key Petroleum Limited

## Bookara Shelf Project

Changing the dynamic in the Perth Basin

16 June 2020



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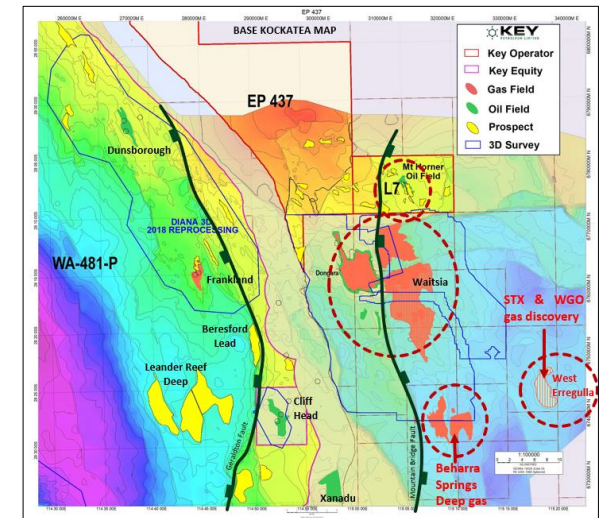
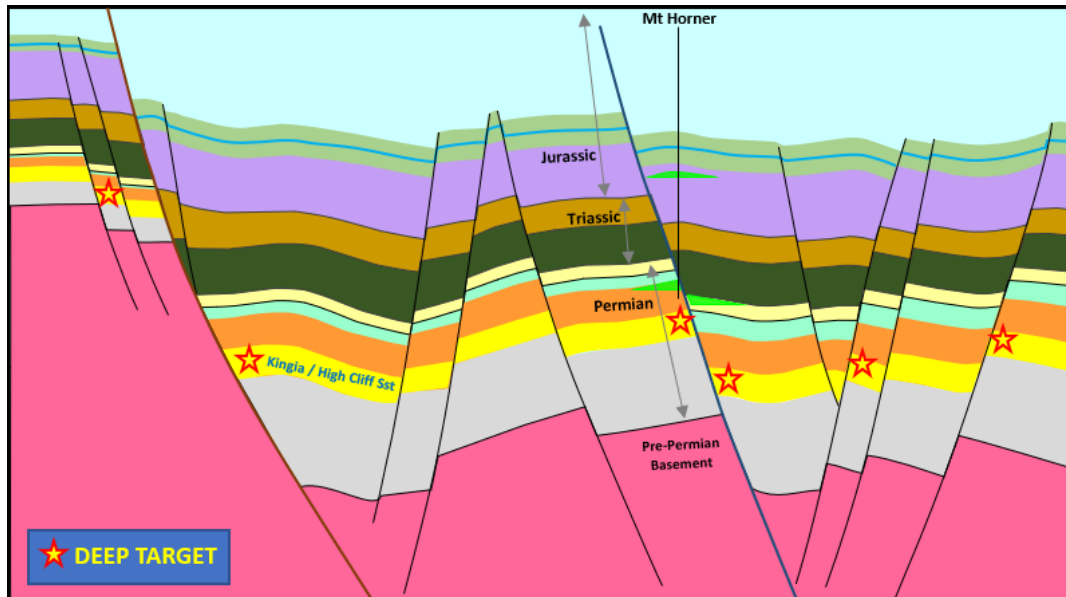
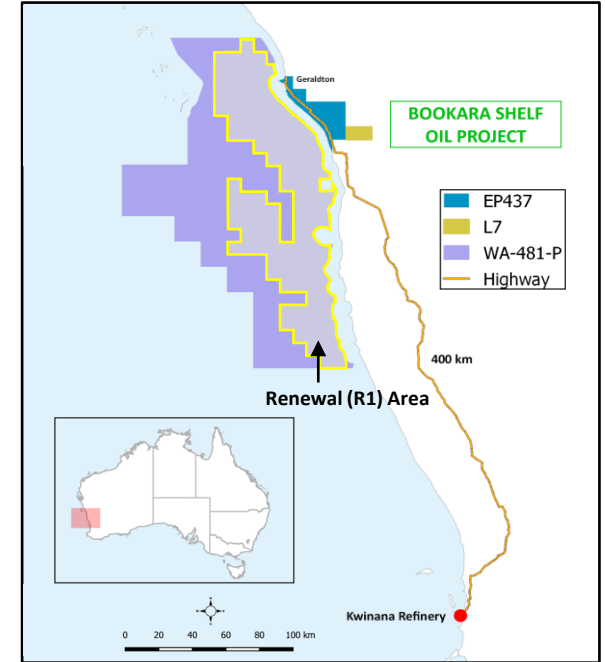
The Company confirms that it is not aware of any new information or data that, in its opinion, materially affects the information included in the relevant market announcement and that all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

## Competent Person's Statement

Except where otherwise noted, information in this release related to exploration and production results and petroleum resources is based on information completed by Mr JL Kane Marshall who is an employee of Key Petroleum Limited and is a qualified petroleum reserves and resources evaluator. Resources reported in this announcement are based on representative information and supporting documentation in accordance with Chapter 5 and Guidance Note 32 of the ASX Listing Rules. These resources include the relevance of recent petroleum discoveries nearby with the evaluation date at 15<sup>th</sup> June 2020. Mr Marshall is a Practising Petroleum Engineer and Petroleum Geologist and holds a BSc (Geology), a BCom (Investment and Corporate Finance) and a Masters in Petroleum Engineering. He is a member of the Society of Petroleum Engineers (SPE), American Association of Petroleum Geologists (AAPG), The Geophysical Society of Houston (GSH), Petroleum Exploration Society of Great Britain (PESGB), Formation Evaluation Society of Australia (FESAus), Petroleum Exploration Society of Australia (PESA), South East Asia Petroleum Exploration Society (SEAPEX) and Society of Petrophysicists and Well Log Analysts (SPWLA) and has over 20 years of relevant experience. Mr Marshall consents to the inclusion of the information in this document.

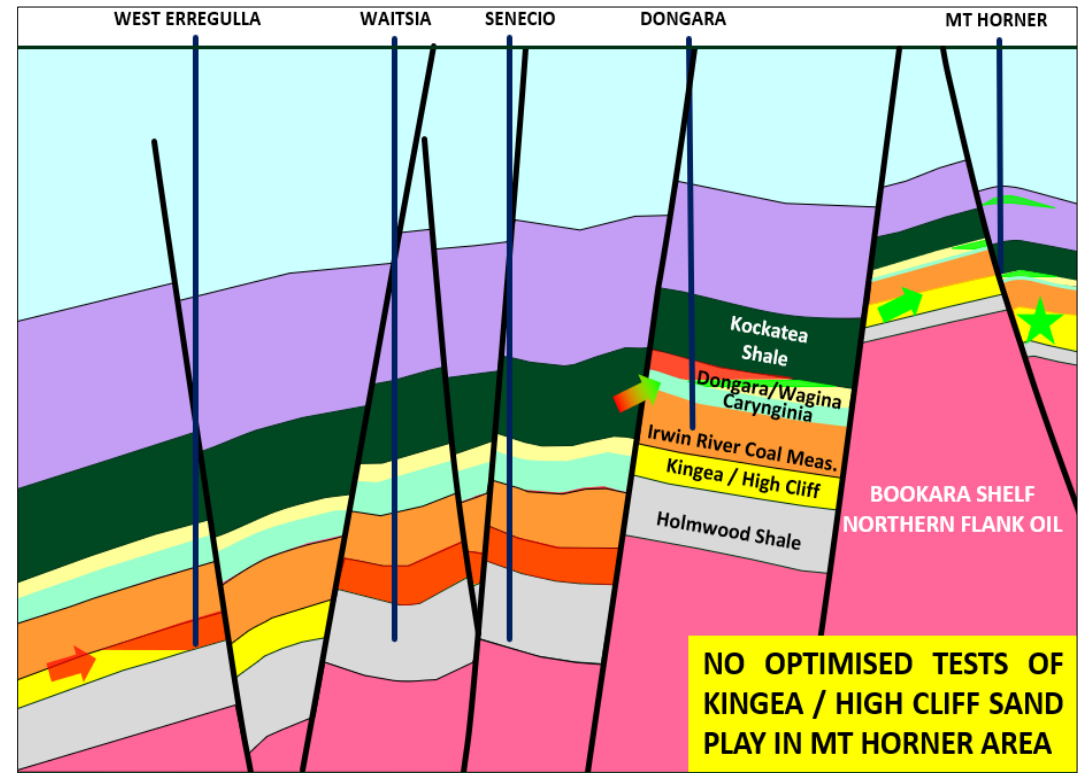
# Emerging Hydrocarbon Address

- ◆ Bookara Shelf Project comprises Key's Perth Basin holdings and is located near infrastructure including pipelines and refineries (right) in the Perth Basin.
- ◆ Mobilisation of rig prior to the end of June to undertake abandonment activities at L7. No formal work commitments are applicable to this permit.
- ◆ EP 437 12-month Suspension and Extension granted for the Year 3 Work Program. The exploration commitment well is to be completed by 28 May 2021.
- ◆ Offshore Perth Basin WA-481-P renewal process is in progress.



# Relevance of Recent Success on Shelf Exploration Development

- ◆ Beharra Deep, West Erregulla and Waitsia gas discoveries lie on trend to the south from Bookara Shelf Project.
- ◆ Oil shows in the deeper Permian sequences, most notably live oil, was observed in the Mount Horner-14 well, which drilled through the Mount Horner Fault.
- ◆ Despite numerous hydrocarbon shows in previous wells the deeper Permian potential was never followed up, due in part to poor seismic quality.
- ◆ Recent gas discoveries on trend to the south reveal an exciting untapped potential on the up-dip Bookara Shelf.
- ◆ Prospective resources for EP 437 and L7 now include the deeper Kingia/High Cliff Reservoirs (overleaf) representing a material impact for the Bookara Shelf Project.

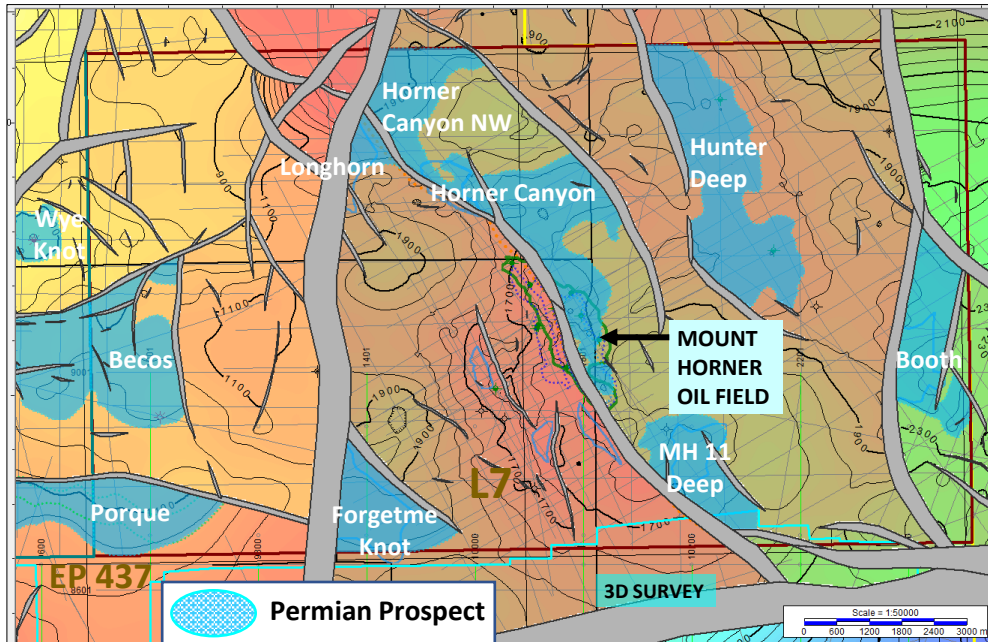




# Key's Perth Basin Perspective



# Eastern Bookara Shelf (L7) – Updated Resource Estimates



*Cautionary Statement: Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. The average geological chances of success (GCOS) for oil are 'F Sand' 55%; Triassic 18%; and for Permian GCOS 11% (oil) and 18% (gas). The chance of development with discovery success is greater than 80% as volumes are considered above economic thresholds.*

- ◆ Previous L7 Prospective and Contingent Resource Estimate<sup>1</sup>:
  - “F Sand” Contingent Resource of 0.1 (1C) – 0.3 (2C) – 0.5 (3C) MMbbls;
  - “F Sand” Prospective Resource (un-risked): 0.66 (1U) – 1.75 (2U) – 3.19 (3U) MMbbls; and
  - Triassic Prospective Resource (un-risked): 2.35 (1U) – 9.40 (2U) – 19.20 (3U) MMbbls.
- ◆ Additional L7 Prospective Resource Estimates<sup>2</sup> assessed for oil and gas potential on deeper Permian horizons with the Permian Prospective Resource (un-risked gas): 63.3 (1U) – 146.5 (2U) – 253.7 (3U) bcf
- ◆ Total L7 Prospective Resource Estimates (un-risked BOE equivalent)<sup>2</sup>: 13.55 (1U) – 35.55 (2U) – 64.53 (3U) MMbbls BOE.

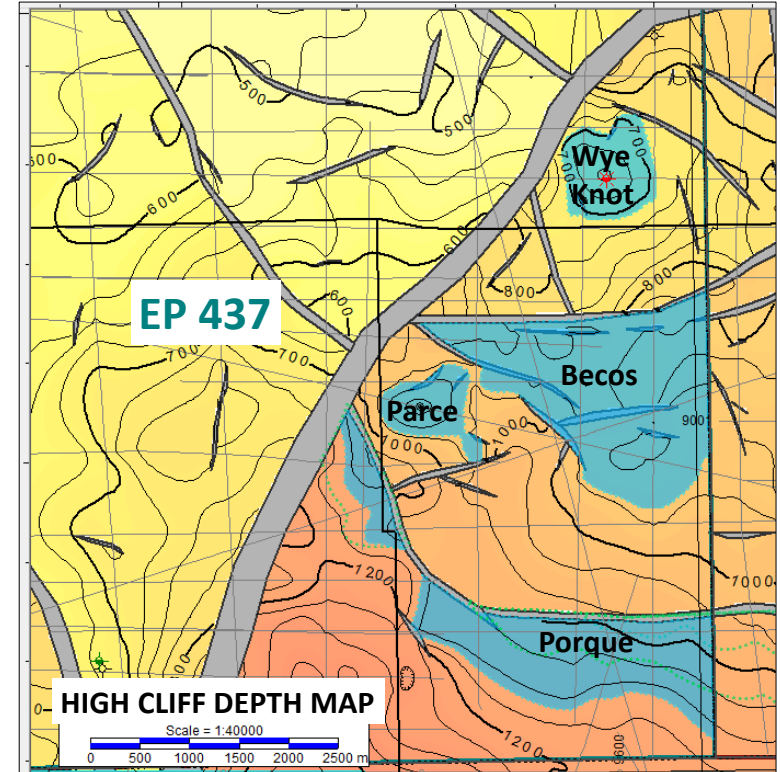
1. As announced to the ASX in the 2018 AGM Presentation, see Prospective and Contingent Resource Notes on Page 11 and 12

2. See Prospective Resources Notes on Page 11, barrel of oil equivalent conversion factor used as uncertainty as to likelihood of oil or gas to be encountered in these deeper reservoirs. Totals were arithmetically summed

# Western Bookara Shelf (EP 437) – Updated Resource Estimates

- ◆ The Wye Knot-1 exploration and appraisal well in EP 437 is designed to appraise the oil rim potential down-dip of the Wye-1 gas cap discovery and the oil potential of the deeper Permian High Cliff Formation.
- ◆ Follow up potential at Becos and Parce have multi-level targets, including the Kingia and High Cliff Formations Area.
- ◆ The Wye Knot prospect has an upgraded un-risked Prospective Resource<sup>3</sup> range of 0.14 (1U) - 1.56 (2U) – 3.91 (3U) MMbbls, which now includes estimates for the deeper potential.
- ◆ The combined prospectivity of EP 437, including the addition of deeper targets, has more than doubled the Prospective Resource<sup>4</sup> potential to 5.13 (1U) – 16.17 (2U) – 31.12 (3U) MMbbls.

*Cautionary Statement: Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. The Wye Knot prospect has a geological chance of success (GCOS) of 24% in pre-Permian sequences. The average Permian GCOS in EP 437 is 12%. The chance of development with discovery success is greater than 80% as volumes are considered above economic thresholds.*



3. Net volumes to Key, see Prospective Resource Notes on Page 11

4. Volumes are net to Key and arithmetically summed, see Prospective Resource Notes on Page 11



# 2020 Bookara Shelf Program Commencement



*Refine Rig #1 currently in the Perth Basin and will shortly be mobilised to Key's Mount Horner site.*

- ◆ Rig contract for abandonment activities in L7 has been executed and the Operator continues to review the rig schedule in context of other potential Bookara Shelf work programs.
- ◆ Refine Energy Rig #1 will be mobilised to L7 during the next 3 weeks to commence the abandonment program of Mount Horner wells.



# Right Time, Right Place

- ◆ Prospective Resource estimates completed for the deeper Permian Kingia and High Cliff Reservoirs more than doubles previous category of resource estimates on the Bookara Shelf.
- ◆ Proven reservoirs from recent discoveries, on trend to the south of the Bookara Shelf to be subject of multi well exploration and appraisal drilling drilled by other Operators including the Strike Energy Joint Venture (Ensign 970 now contracted for West Erregulla-3)
- ◆ Timing of EP 437 drilling provides flexibility for additional work programs with Refine Energy Rig #1 and has been earmarked for the drilling of Wye Knot-1 and is easily adapted to undertake this work.
- ◆ All regulatory approvals received for drilling Wye Knot-1 with the exception of environmental approvals which are expected shortly.



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# Prospective Resources

## Notes:

1. Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These estimates have both an associated risk of discovery and development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons;
2. The estimates of Prospective Resources have been prepared in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System ("PRMS") as revised in June 2018 by the Society of Petroleum Engineers. The PRMS defines prospective resources as those quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations;
3. Prospective resource estimates include barrel of oil equivalents ("BOE") for any gas associated with prospective volume categories as there is uncertainty as to whether the Permian level objectives will be prospective for gas or oil. The conversion factor used is 6.003 million bbl/Bcf, the source is from a Statistical Review of World Energy BP conversion factors (refer BP website);
4. All prospective resources to date that are estimated on each of EP 437 and L7 were undertaken by mapping the extent of the prospect using the seismic data and applying ranges of volumetric parameters based on regional data then incorporated into probabilistic method to prepare prospective resource estimates. Total volumes for each of L7 and EP 437 were arithmetically summed;
5. Recovery efficiencies were estimated using generalised recovery factors which Key assessed as reasonable especially when benchmarked against analogous producing fields;
6. Recent exploration success of Permian level formations have provided new information and justification for the change to prospective resources in each of EP 437 and L7 (collectively the "Bookara Shelf");
7. The EP 437 prospectivity includes a range of geological chances of success estimated to be in the range from 4 to 27%, largely based on the existing 2D seismic data coverage reprocessed in 2013 for all Triassic and Permian prospects. This 2013 reprocessed data is of sufficient enough quality, with high signal to noise ratio to give confidence in the structural closures and therefore the resulting defined prospects. The revised volumes are net interest resource volumes to Key;
8. EP 437 prospective resources are based on deeper Permian objectives and the evaluation date at 15 June 2020;
9. The L7 prospectivity includes a range of geological chances of success with an average for the F sand of 55%, for the Triassic 18%, Permian oil 11% and Permian gas 18% largely based on the existing 2D seismic data coverage reprocessed in 2013. This 2013 reprocessed data is of sufficient enough quality, with high signal to noise ratio to give confidence in the structural closures and therefore the resulting defined prospects. These most recent prospective resource volumes were evaluated on 15 June 2020;
10. With respect to L7, Gross Prospective Resources are 100% of the on-block volumes estimated to be recoverable from the Prospect in the event that a discovery is made and subsequently developed, Key's economic interest in L7 is 100% until a subsidiary of Triangle (Global) Energy Limited has earned its 50% in L7 under the Farmout Agreement as disclosed 31 October 2018; and
11. The volumes reported are "Unrisked" in the sense that the Geological Chance of Success (GCoS) factor has not been applied to the designated volumes. The Operator has estimated various GCoS for each of the prospects with the averages as depicted above.



# Contingent Resources

## Notes:

1. Contingent Resources are the estimated quantities of petroleum that may be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. One of these contingencies is the state of the Mount Horner infrastructure subject to decommissioning activities currently being undertaken by Key Petroleum (Australia) Pty Ltd.
2. The estimates of Contingent Resources included in this announcement 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 by the Society of Petroleum Engineers (SPE).
3. The Contingent Resources were estimated analytically by mapping the extent of the structure or areal oil pool extent inside the Mount Horner Oil Field using seismic data and applying ranges of volumetric parameters based on regional data, including recovery efficiencies. The Mount Horner Oil Field has previously been discovered and was in production until 2011 when it was shut in after producing approximately 1.7 MMbbls. The Contingent Resources were calculated probabilistically, and the reservoir targets were arithmetically summed in order to provide estimates for the category as a whole. Gross Contingent Resources are 100% of the on-block volumes estimated to be recoverable from the field in which Key has 100% subject to the Triangle (Global) Energy Limited Farmout as disclosed 31 October 2018 and evaluated as of 22 November 2018; and
4. Contingent resource estimates do not include barrel of oil equivalent.