

## WA-488-P Beehive Update

### Highlights:

- Fast-track processed 3D seismic survey data received, final data due for delivery by early March
- Data quality is excellent, improving definition of Beehive target
- Once quality control checks on final data are completed, Total and Santos have 6 months to exercise option to drill Beehive-1 well
- If option exercised, Melbana (20%) fully carried with drilling expected 3Q, 2020
- Beehive assessed by Independent Expert McDaniel & Associates to contain a best estimate prospective resource of 388 million barrels of oil equivalent<sup>1,2</sup>

MELBOURNE, AUSTRALIA (25 February 2019)

Melbana Energy Limited ('Melbana') (ASX: **MAY**) is pleased to advise that fast-track processed data from the Beehive 3D Seismic Survey undertaken during August 2018 has been received. The final dataset is due for delivery by early March.

The quality of the 3D data is excellent with vastly improved imaging when compared to the 2D seismic data, leading to clearly improved definition of the Beehive structure and reservoir unit (see Figure 2).

Total and Santos have an option, exercisable together or individually, to acquire a direct 80% participating interest in the permit in return for continuing to fully fund 100% of the costs of all activities until completion of the Beehive-1 well. The option is exercisable at any time, but no later than 6 months from the final processed seismic survey data being accepted by Santos, Total and Melbana.

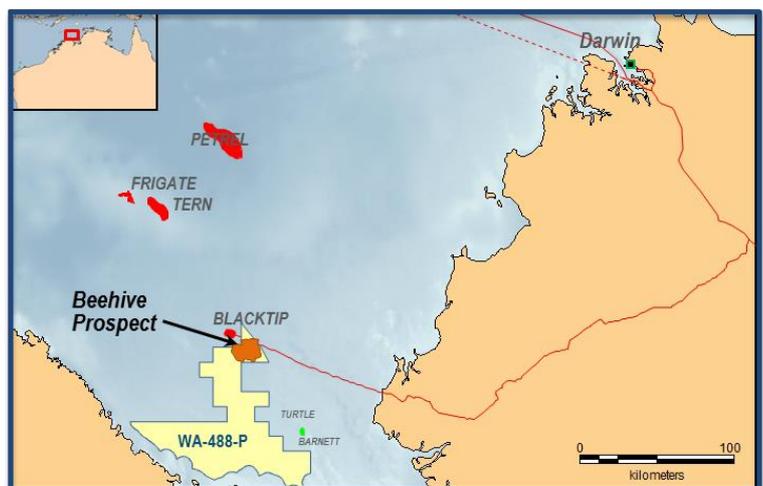


Figure 1 – Beehive Location

If the option is exercised, drilling is anticipated in 3Q 2020, with Melbana estimating the cost of the Beehive-1 exploration well to be within the US\$40-\$60 million range.

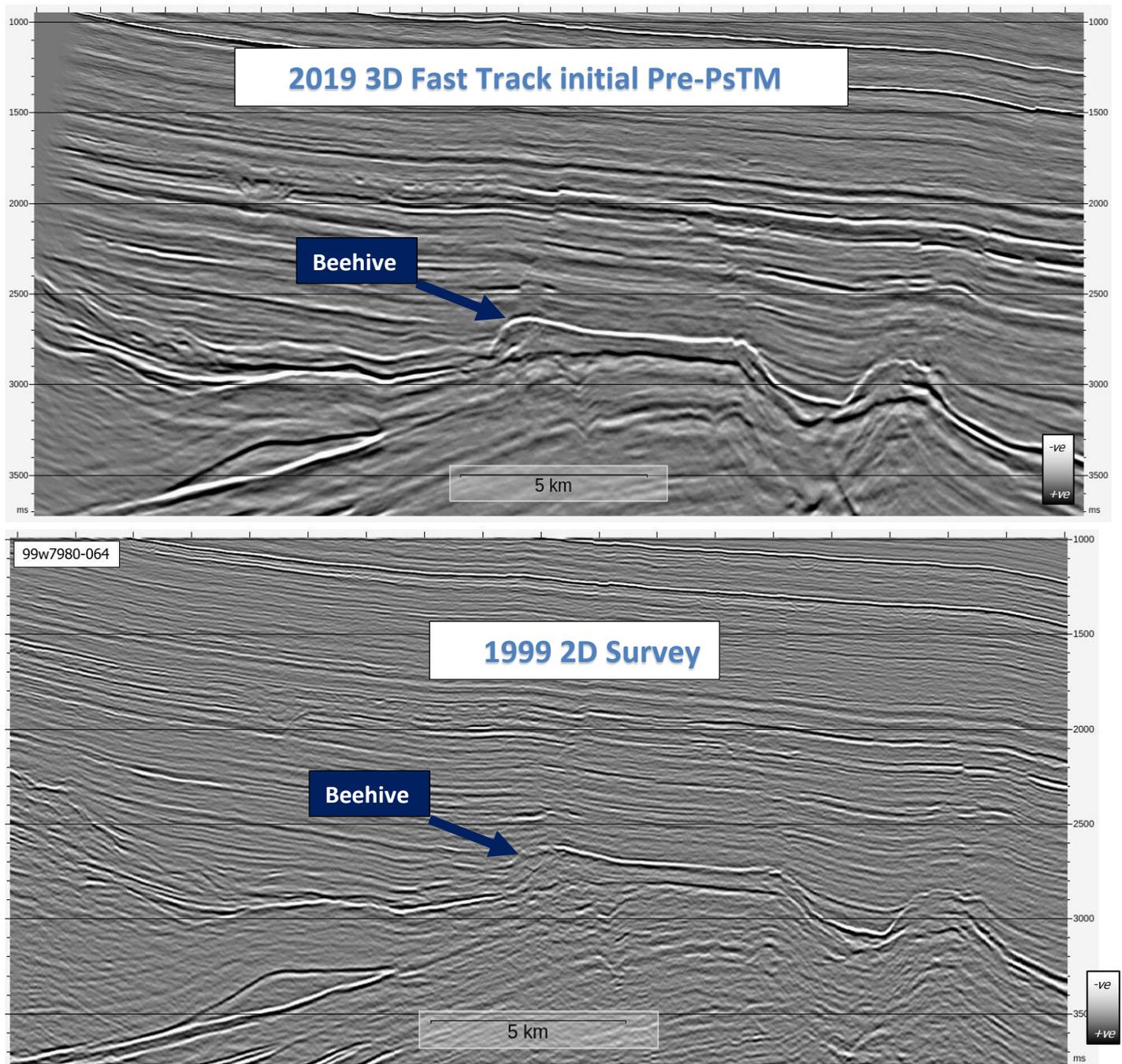


Figure 2: Improved clarity - 3D Seismic Survey imaging vs 1999 2D Seismic Survey imaging

Melbana Energy's CEO, Robert Zammit, said:

*"The data quality of the Beehive 3D Seismic Survey is much improved over the 1999 2D data and should help Total and Santos in their decision to exercise their option to drill the Beehive-1 well. Once the final quality control checks are completed, Total and Santos have six months to exercise their option. If Total and/or*

*Santos exercises their option to drill, Melbana retains a 20% interest in WA-488-P and is fully carried until the completion of drilling of the first well in the permit.*

*In December last year Melbana reached agreement with Total and Santos for them to accelerate drilling planning, fully funding initial activities including drafting of an environment plan, well concept identification and commencement of rig selection to ensure readiness for drilling in 3Q 2020 in the event the option is exercised.”*

## WA-488-P Background

### Commercial

Total and Santos have an option (exercisable together or individually) to acquire a direct 80% participating interest in the permit in return for continuing to fully fund the costs of all activities until completion of the first well in the WA-488-P permit. The option is exercisable by either Total or Santos at any time but no later than 6 months from the receipt of processed seismic survey data.

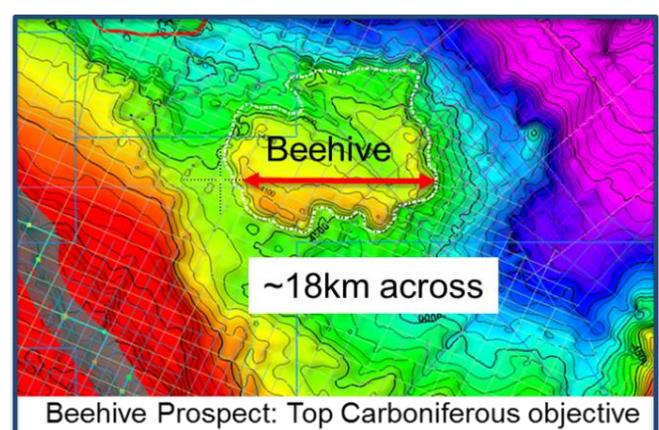
Beehive is located close to several existing facilities including Ichthys project and Blacktip field and pipeline offering several options for future gas monetization. In the event of a commercial discovery, Melbana will repay carried funding from its share of cash flow from the Beehive field. Melbana will have no re-payment obligations for such carried funding in the event there is no commercial discovery and development in WA-488-P.

### Seismic Survey and Processing

The Beehive 3D Seismic Survey was recently acquired by Polarcus using their vessel Polarcus Naila and consisted of the acquisition of approximately 700km<sup>2</sup> of seismic data over the Beehive Prospect and Egret lead in the Joseph Bonaparte Gulf, 225 km southwest of Darwin. The Beehive 3D Seismic Survey was operated by Australian gas company Santos pursuant to an Operations Services Agreement and was fully funded by French major Total and Santos. The acquisition of the 3D seismic survey provides potential for further de-risking of the Beehive prospect and will facilitate consideration of a preferred location for the Beehive-1 exploration well. Seismic processing is an important computer algorithm based activity which results in the iteration of seismic data to suppress noise, enhance signal and migrate seismic events to the appropriate location in space. Processing steps typically include analysis of velocities and frequencies, static corrections, stacking, and migration. All of these steps are required in order to interpret the geological structure of the subsurface.

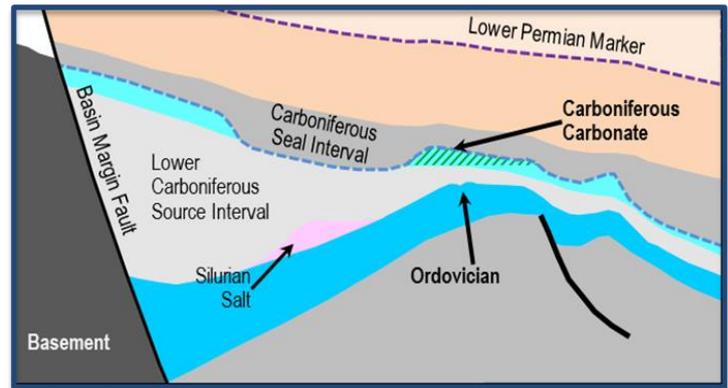
### Technical

The Beehive prospect is a Carboniferous age 180km<sup>2</sup> isolated carbonate build up with 400m of mapped vertical relief, analogous to the giant Tengiz field in the Caspian Basin. It is located in 40m water depth suitable for a jack up rig, within ~75km of shore and developable by either FPSO or pipeline to existing infrastructure. This play type is new and undrilled in the Bonaparte Basin with no wells having been drilled to this depth in the basin.



The carbonate reservoir is also interpreted to be the same age as the 2011 Ungani-1 oil discovery in the Canning basin, which tested at 1,600 bopd demonstrating a high quality reservoir. Beehive is a much larger build up than Ungani and has excellent access to the Lower Carboniferous source rock in adjacent depocentres.

Potentially the largest undrilled hydrocarbon prospect in Australia, the Beehive prospect was recently assessed by Independent Expert McDaniel & Associates as having significant prospective resources as outlined in the following table:



**Table 1 - Exploration Prospective Recoverable Resource estimates for Beehive**

Objective	Chance of Success	Recoverable Prospective Resource (MMboe) <sup>1,2</sup>			
		Low	Best	High	Mean
Beehive	20%	91	388	1,645	704

<sup>1</sup> Independent Expert McDaniel & Associates Competent Persons Report 30 June 2018

<sup>2</sup> **Prospective Resources 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 discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.