

Beehive – largest undrilled prospect in Australia

WA-488-P is located in the Petrel sub-basin between ENI’s producing Blacktip gas field and the undeveloped Turtle and Barnett oil discoveries. It has an area of 4,074 km² and lies in relatively shallow water (40 metres).

Melbana originally defined the potentially giant Beehive prospect from a tight grid of high quality 2D seismic data. A 3D seismic survey, fully funded by French supermajor Total and Australia’s Santos, was completed in August 2018.

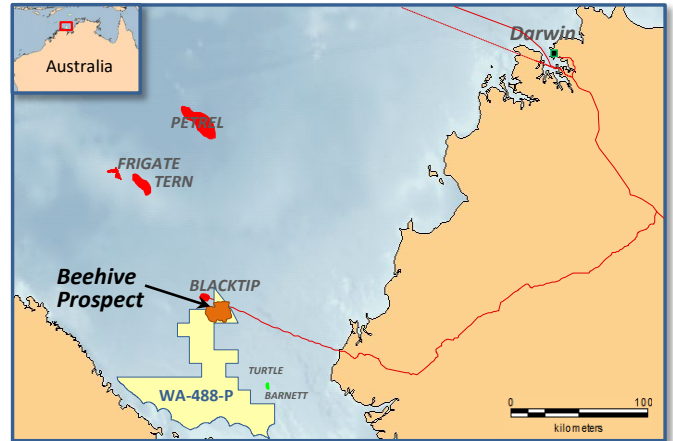
In December 2019, Santos conditionally exercised their option to fund 100% of the first exploration well in WA-488-P in return for receiving an 80% participating interest in the permit. The conditions to be satisfied were Santos concluding a farmdown of its right to an 80% participating interest by 4 March 2020 then, subsequently, securing an extension to the current permit year (to align with rig availability). Santos advised it was unable to satisfy the first of these conditions by the deadline so an unencumbered 100% interest in WA-488-P has reverted to Melbana.

Melbana subsequently applied for and received a one-year extension to the current permit year.

Potentially the largest undrilled hydrocarbon prospect in Australia, Melbana is seeking a partner interested in using the considerable work that has gone into the assessment of this prospect and the planning of a well to fund the drilling of this new and exciting play type in Australian waters.

The Beehive prospect is characterized by independent expert McDaniel & Associates as having significant prospective resource.

In August 2020, Melbana reported a modest 7% increase in the Best Estimate Prospective Resource of the Beehive Prospect, based on the results of a comprehensive assessment of the Beehive 3D seismic data acquired across the prospect, compared to the assessment conducted in 2018 by independent reserves expert McDaniel & Associates based on the pre-existing 2D seismic data.



Independent Expert McDaniel & Associates estimates Prospective Resource of up to 1.6 billion barrels of oil

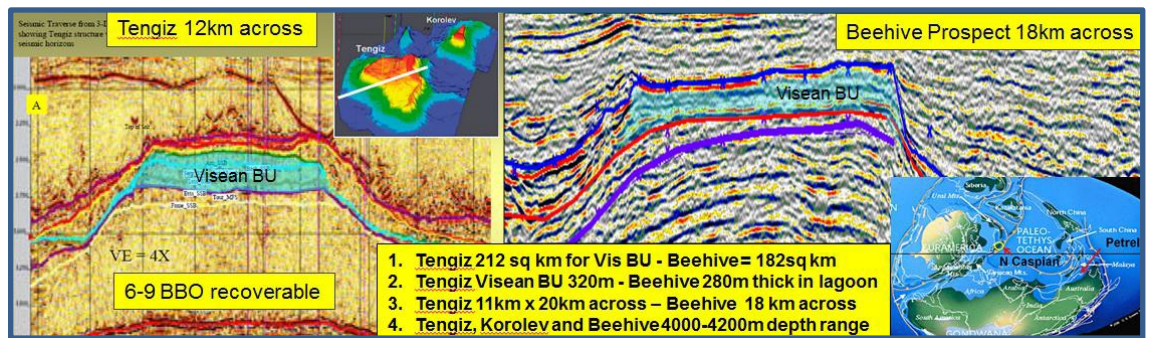
Table 1 - 2020 updated Beehive Prospective Resources¹ incorporating 3D seismic data

Prospect	Scenario	COS ¹	Unrisked Prospective Resource			
			Low (1U)	Best (2U)	High (3U)	Mean
	<u>Gas-only</u>					
	Gas (BCF)		198	2,186	7,184	3,054
	Condensate (MMbbl)		2	38	185	70
	<u>Oil-only</u>					
	Oil (MMbbl)		37	419	1,435	604
Beehive	TOTAL (MMboe)	20%	37	416	1,424	599

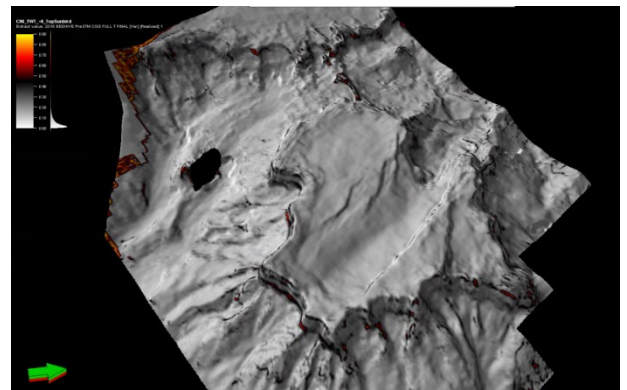
¹ *Prospective Resources Cautionary Statement - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. Prospective resources have been estimated using the Probabilistic Method. All quoted volumes taken from Independent Expert McDaniel & Associates Competent Persons Report 30 June 2018. Gas to Oil Factor: based on Mcf to BOE energy equivalence conversion of 6 to 1.*

Multi-billion barrel Tengiz analog

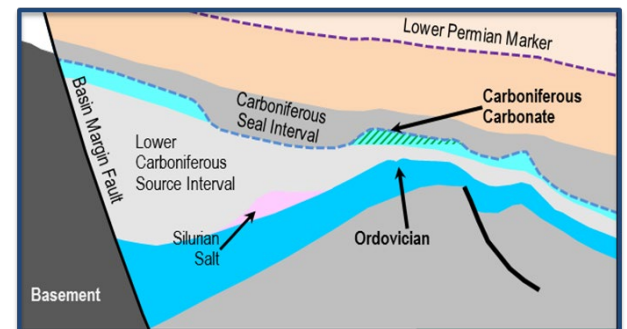
Beehive Technical Overview



The Beehive prospect is a Carboniferous age 180km² 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, is suitable for a jack up rig and lies 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 there.



Beehive is analogous to the giant Tengiz field in the Caspian basin, which is also a Carboniferous isolated carbonate build up. 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.

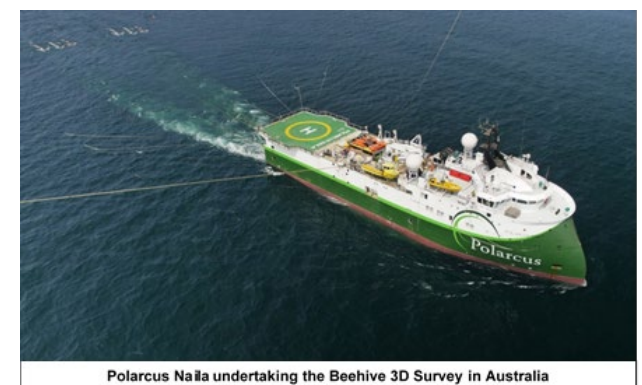


Melbana has completed reprocessing and an inversion study of selected seismic lines across the Beehive Prospect with very encouraging results which, when taken with the results of the recent 3D survey, have enhanced the understanding of the Beehive reservoir and seal units.

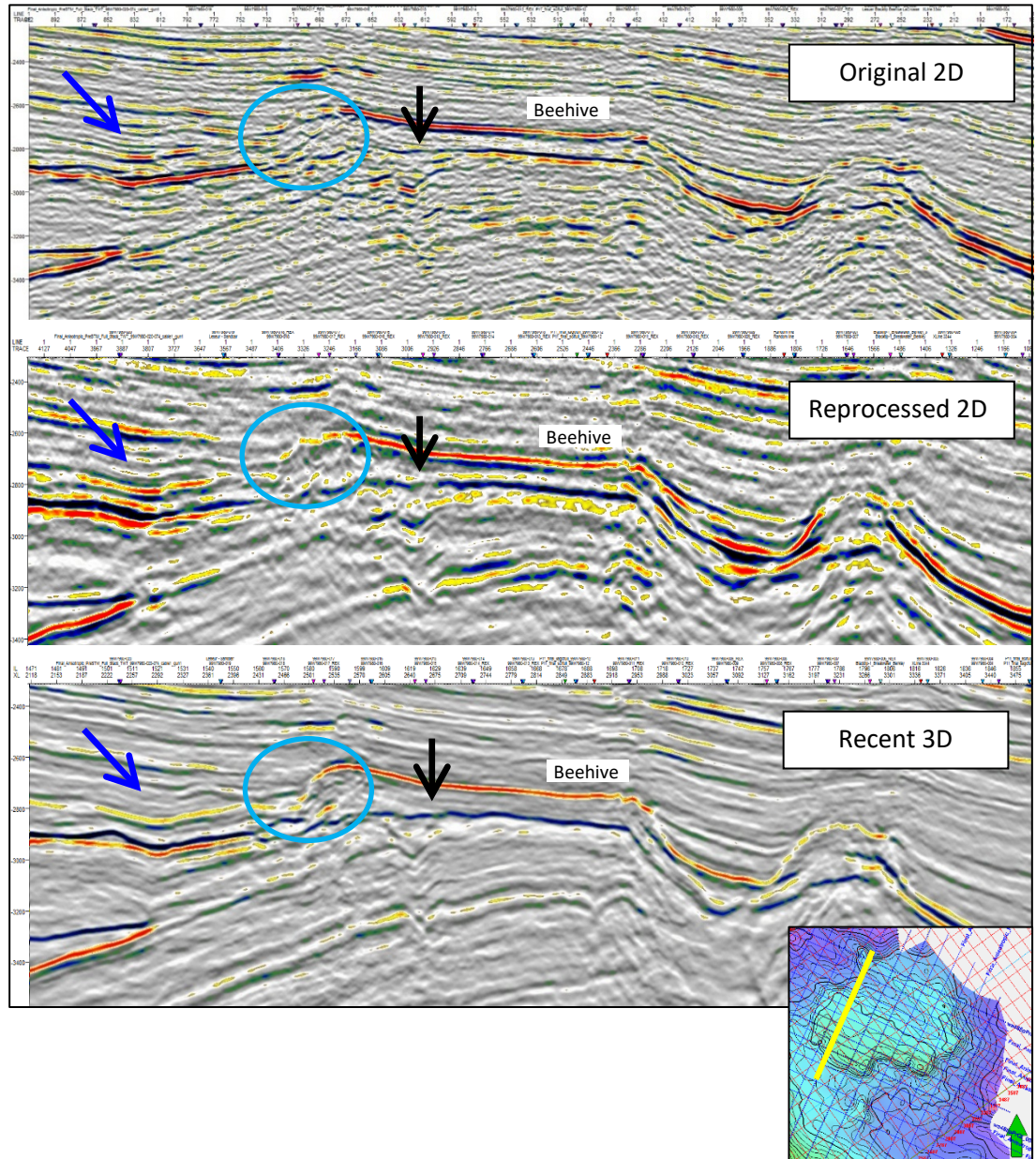
3 D Survey completed mid-2018

Beehive 3D Seismic Survey

The Beehive 3D seismic survey, undertaken in July and August of 2018, provided modern 3D imaging over and further derisked the Beehive Prospect. It also provided insights into the preferred location for the Beehive-1 exploration well.



During the planning of the Beehive 3D seismic survey, a new lead was identified and the survey area was extended by ~100km² (~16%) to provide coverage over the newly identified lead (Egret) that is partially within the boundary of WA-488-P. The extension of the survey area was within the approved scope and operational envelope of the Beehive 3D seismic survey. The Beehive 3D seismic survey, including the extension over the Egret lead was fully funded by Santos and Total.



Improved Data quality with the Beehive 3D Work Program

Permit Year	End Date	Minimum Work Requirements	Estimated Expenditure (indicative only)
2	21 Sep 2018	- Geological and Geophysical Studies - Survey Data Proprietary Processing - 150km 2D Broadband Reprocessing and Seismic Inversion - 330km 2D Broadband Seismic Reprocessing, Seismic Stratigraphic Interpretation and Analogue Field Study	A\$200,000 A\$300,000 A\$150,000 A\$250,000
3	21 Dec 2021	One Exploration Well	A\$20,000,000
4	21 Sep 2020	400km ² New 3D Seismic Survey (2018 3D Survey credited against this)	A\$5,000,000
5	21 Sep 2022	Geological and Geophysical Studies	A\$200,000
6	21 Sep 2023	One Exploration Well	A\$20,000,000

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