

ASX: MAY

Equity Research 31st July 2023

SPECULATIVE BUY

Share Price \$0.105 Valuation \$0.230

\$0.039 - \$0.120 52-Week Range MAY Shares Outstanding 3.370m Performance Rights: Price above 12.0¢ for 20 consecutive days 31.3m Price above 19.2¢ for 20 consecutive days 22.6m Price above 12.0¢ for 20 consecutive days 13.5m Price above 19.2¢ for 20 consecutive days 9.8m Market Capitalisation \$353.9m Cash (30th Jun 2023) \$35.1m Debt (30th Jun 2023) \$0.0m Enterprise Value \$318.8m

Board & Management:

Andrew G Purcell Executive Chairman
Michael Sandy Non-Executive Director
Peter Stickland Uno Makotsvana CFO
Cate Friedlander Company Secretary

Major Shareholders (as at 25th July 2023):

Andrew Purcell		6.93%
Twinkle Capital		2.91%
MF Medical Pty Ltd		1.47%
Terrace Management		1.34%
Jason Meinhardt		1.06%



Melbana Energy Ltd (ASX: MAY) is an independent oil and gas company that has a focussed portfolio of high impact exploration, appraisal and development stage opportunities in Cuba and the Bonaparte Gulf and Territory of Ashmore and Cartier island regions in Australia.

Melbana aims to create a world class E&P company by using the skills of its people to identify and successfully develop attractive oil and gas exploration and project development opportunities.

Melbana Energy Limited

Cuba Drilling Beats Expectations, More to Come....

We initiated on Melbana Energy Ltd (ASX: MAY) on 6th June with a Speculative Buy rating and valuation of \$0.21/share. At that time MAY was gearing up for its drilling campaign in Cuba targeting the Amistad, Alameda and Marti Reservoir in Block 9.

Since then, Melbana has been running full tilt achieving significant milestones in a short period of time and seeing positive price movement based on stellar drilling results. Since our initiation Melbana has:

- 1) Bulked up its management team;
- 2) Prepared, installed and commenced its first appraisal well in Cuba (Alameda-2);
- 3) Announced the Maiden Prospective Resource of the Hudson prospect;
- Conducted a production test of the shallowest unit of the upper Amistad interval and flowed oil to surface.

Most significantly, the drilling campaign in Cuba has revealed a previously unexpected characteristic of the upper Amistad interval. During its production test, Melbana was able to flow oil to surface without external assistance. This translates to self moving hydrocarbons on that level. Where this is important is that, prior to drilling, Melbana assumed a very low chance that this section would flow unassisted and as such did not include the section when calculating and publishing its Prospective Resource of the Amistad Structure and consequently total volumes of Cuba Block 9.

The unexpected productive interval of Amistad has been assessed at 64m TVD and now needs to be reconsidered/analysed by Melbana as it now has a much greater chance to be developed in the future, a nice problem to have.

Drilling has been ahead of schedule, as we mentioned previously, Melbana's drilling contractor, a subsidiary of Sherritt International, has decades of experience in Cuba drilling and producing hundreds of oil and gas wells over the past 25 years. It seems that Melbana certainly picked the right contractor.

As of 14 July Alameda-2 well was at 1,597 metres measured depth (mMD) with planned total depth of ~1,960 mMD expected by end July. We speculate since drilling has been progressing so well, they may push ahead and drill deeper than planned to gather more data or if they are still encountering hydrocarbon bearing sections.

The successful Alameda-2 well was a direct follow up of the successful Alameda-1 well. We anticipate that the rest of the Alameda-2 drilling campaign will be successful and are hopeful that the Alameda-3 well, expected to spud following the completion of the Alemada-2 well, will also be a success for the Company.

We have updated our valuation target for Block 9 PSC by increasing the prospective resource of the Amistad interval from 88 mmbbl to 103 mmbbl.

CUBA Block 9 PSC Project Valuation: using various Brent prices & Risk Weights.

Risk Weight						
10%	15%	20%	25%	30%		
130.2	195.2	260.3	325.4	390.5		
195.2	292.8	390.5	488.1	585.7		
260.3	390.5	520.6	650.8	780.9		
325.4	488.1	650.8	813.5	976.2		
390.5	585.7	780.9	976.2	1171.4		
	130.2 195.2 260.3 325.4	130.2 195.2 195.2 292.8 260.3 390.5 325.4 488.1	10% 15% 20% 130.2 195.2 260.3 195.2 292.8 390.5 260.3 390.5 520.6 325.4 488.1 650.8	10% 15% 20% 25% 130.2 195.2 260.3 325.4 195.2 292.8 390.5 488.1 260.3 390.5 520.6 650.8 325.4 488.1 650.8 813.5		

News flow: the key catalysts in the short and medium term is the ongoing results from the Alameda-2 appraisal well and subsequent spudding of Alameda-3 followed by results from the drilling.

Update to Valuation: We have updated our valuation to account for 1) Updated cash position, 2) Increased overhead costs, 3) Increased volume estimate of the Amistad structure and 4) Maiden resource estimate for the Hudson prospect.

MAY valuation: Our sum of the parts valuation considers a 25% (or 75% risk discount) of the Cuba PSC 9 NPV estimated using an oil NPV price of US\$25/bbl with a valuation of A\$650.8 million or \$0.19 per share. Factoring the other acreage and volumes held by MAY we assume a 90-95% risk discount and an oil NPV price of US\$10/bbl. Our total sum of parts valuation of MAY comes to \$758.2 million or \$0.23 per share.

1. MAY Valuation

Based on the reported & our updated volumes and the excellent drilling results reported so far, we estimated a "back of the envelope" range of volumes and value to the Melbana assets, our sum of the parts valuation comes to \$758.2 million or A\$0.23/share.

Block 9 comprises most of MAY's valuation. Considering the quality of the project, the results so far and the likely short path to production of oil should the drilling program continue to be successful we view there is potential upside to our Valuation.

Table 1.1 summarises Block 9 PSC project valuation using different product pricing.

Table 1.1 - BLOCK 9 Project Valuation (A\$m)

NPV US\$/bbl		CI	nance of Succe	ss	
	10%	15%	20%	25%	30%
US\$10/bbl	130.2	195.2	260.3	325.4	390.5
US\$15/bbl	195.2	292.8	390.5	488.1	585.7
US\$20/bbl	260.3	390.5	520.6	650.8	780.9
US\$25/bbl	325.4	488.1	650.8	813.5	976.2
US\$30/bbl	390.5	585.7	780.9	976.2	1171.4

Source: Evolution Capital estimates

Considering the current market capitalisation in the order of A\$353.9 million and a current cash balance in excess of A\$35 million, the ongoing funding of the current drilling program should not be an issue.

MAY Sum of the Parts Valuation

Table 1.2 summarises the sum of the parts valuation for MAY.

Table 1.2 - MAY Sum of the Parts Valuation

Asset	Value Range	Preferred	Per Share
Block 9 PSC (30% interest)	A\$130.2m-\$1,171m		
25% risked at US\$20/bbl NPV		\$650.8	\$0.193
Santa Cruz		\$38.5	\$0.011
PEL WA-488-P		\$24.0	\$0.007
PEL AC/P51		=	-
PEL AC/P70		=	-
PEL WA-544-P / PEL NT/P87		\$15.2	\$0.005
Tassie Shoals		=	-
Cash (30 June 2023)		\$35.1	\$0.010
Debt (30 June 2023)		=	=
Corporate and Overheads		(\$5.3)	(\$0.002)
Total		\$758.2m	\$0.23

Source: Evolution Capital estimates

2. Reserves and Resources

Table 2.1 highlights MAY's 2U volumes. As demonstrated, MAY has a significant resource position, not only in Cuba but also in its offshore permits in Australia.

Table 2.1 - Melbana Asset Volumes

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2U		Amistad (3 Units)	Marti	Alameda	Santa Cruz	Hudson	Beehive*	TOTAL
Gas Prospective	(BCF)						2,186	2,186
Converted Gas to Oi	l (mmbbl)						389,348	389,348
Condensate	(mmbbl)						38	38
Oil in place	(mmbbl)	1,939	1,231	1,872		1,573		6,615
Prospective Resourc	e (mmbbl)	103**	70	109		395	416	1,096
Recoverable oil	(mmbbl)				100			100

Source: Melbana Energy Ltd

Bold numbers are Mean Estimates

^{*} MAY is entitled to Beehive royalty payments of US\$10.0m for each 25 mmboe

^{**} Reported 88 mmbbl – Evolution estimate due to results 103 mmbbl



It is important to note in the table above that MAY is entitled to contingent deferred consideration payments of US\$5.0 million and contingent royalty payments of US\$10.0 million for each 25 million barrels of oil equivalent produced from the WA-488-P permit area (Beehive Prospect).

In August 2022, Melbana announced a new independent assessment of the reservoirs encountered by the Alameda-1 exploration well. This assessment estimated the total resource for the three structures encountered whilst drilling the Alameda-1 well (Amistad, Alameda and Marti) at:

- 6.4 billion barrels of OOIP and
- 362 million barrels of Prospective Resource.

The volumes of the Amistad reservoir consisting of Amistad Unit 1A/B, Amistad Unit 2 and Amistad Unit 3 have been independently estimated as 1.9 billion barrels of Oil in Place and 88 million barrels of Prospective Resource (un-risked gross best estimate).

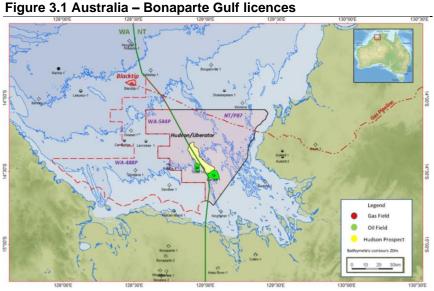
The volumes of the Marti reservoir have been independently estimated as 1.2 billion barrels of Oil in Place and 70 million barrels of Prospective Resource (un-risked gross best estimate).

The volumes of the Alameda reservoir have been independently estimated as 1.8 billion barrels of Oil in Place and 109 million barrels of Prospective Resource (un-risked gross best estimate).

On the back of recent drilling results, we have increased the prospective resource of the Amistad interval from 88 mmbbl to 103 mmbbl.

3. Hudson Prospect Resource Estimate

During July Melbana announced the completion of its Maiden estimate of Prospective Resources for the Hudson prospect. Melbana is commencing a global search for a farmin partner to fund the acquisition of a 3D seismic survey and potentially fund an exploration well. Melbana will be hoping to repeat their previous successes in attracting international majors to fund exploration activities (Origin, Santos, Total and EOG to the Bonaparte Gulf, and Sonangol to Cuba).



Source: Melbana Energy Ltd.



Melbana's estimate of Prospective Resources (un-risked mean recoverable estimates) comes to:

- Oil Only Scenario: 395 million barrels of oil;
- Gas Only Scenario: 2,034 billion cubic feet.

These are significant resources of hydrocarbons and we have updated our numbers to reflect these findings.

4. Investment Risks

MAY is exposed to a number of risks including:

Material Business Risks: The international scope of Melbana's operations, the nature of the oil and gas industry and external economic factors mean that a range of factors may impact results. Material macroeconomic risks that could impact the Company's results and performance include oil and gas commodity prices, exchange rates and global factors affecting capital markets and the availability of financing.

Technical Risk: Oil and Gas exploration and production is speculative by nature and therefore carries a degree of risk associated with the discovery of hydrocarbons in commercial quantities. Exploration activity may be adversely influenced by a number of different factors including, amongst other things, new subsurface geological and geophysical data, drilling results including the presence, prevalence and composition of hydrocarbons, force majeure circumstances, drilling cost overruns for unforeseen subsurface operating conditions or unplanned events or equipment difficulties, changes to resource estimates, lack of availability of drill rigs, seismic vessels and other integral exploration equipment and services

Operational Risk: Successful production operations are still subject to a range of risks and uncertainties. These risks and uncertainties in part relate to the estimated quantities of petroleum that may potentially be recovered. They also relate to the costs involved of asset development and subsequent production, which are subject to a range of qualifications, assumptions and limitations. They also relate to the timing of project development and subsequent production, which is subject to a range of factors many of which are not within Melbana's control.

Government and Regulator Risk: Melbana's rights, obligations and commercial arrangements through all stages of the oil and gas lifecycle (exploration, development, production) in international oil and gas permits are commonly defined in agreements entered into with the relevant country's Government as well as in the Country's petroleum, tax and emission related legislation and other laws. These agreements and laws are at risk of amendment by a Government which accordingly could materially impact on Melbana's rights and commercial arrangements adversely. Furthermore, due to the evolving nature of exploration work programs (as new technical data becomes available) and due to the fluctuating availability of petroleum equipment and services, Melbana may seek to negotiate variations to permit agreements in particular in relation to the duration of the exploration phase in the permit and the work program commitments.

Environmental Risks: Oil and gas operations have inherent risks and liabilities associated with ensuring operations are carried out in a manner that is responsible to the environment. Although Melbana operates within the prevailing environmental laws and regulations, such laws and regulations are continually changing and as such, Melbana could be subject to changing obligations or unanticipated environmental incidents that, as a result, could impact costs, provisions and other facets of Melbana's operations

Resource Risk: all resource estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates, which



were valid when originally calculated may alter significantly when new information or techniques become available. In addition, by their very nature, resource estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate.

Commodity Price Risk: the revenues Melbana will derive mainly through the sale of oil and gas exposing the potential income to hydrocarbon price risk. The price of oil and gas fluctuate and are affected by many factors beyond the control of Melbana. Such factors include supply and demand fluctuations, technological advancements and macro-economic factors.

Exchange Rate Risk: The revenue Melbana derives from the sale of hydrocarbons exposes the potential income to exchange rate risk. International prices of oil and gas as well most of the costs base are denominated in United States or Cuban Peso, whereas the financial reporting currency of Melbana is the Australian dollar, exposing the company to the fluctuations and volatility of the rate of exchange between the USD, the AUD and the CUP as determined by international markets. **Management and Labour Risk:** an experienced and skilled management team is essential to the successful development and operation of hydrocarbon projects.

Evolution Capital Pty Ltd

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