

Block 9: Maiden Contingent Resources

Highlights

- Independent evaluation by McDaniel and Associates of Alameda-2 appraisal well results from Unit 1B in the Amistad structure in Block 9, onshore Cuba (Melbana 30%) concluded. Maiden Contingent Resources confirmed along with upgrade to Prospective Resources.

OIL IN PLACE (100% share, best estimate)

Contingent Resource Area	331 million barrels
Prospective Resource Area	656 million barrels

RESOURCES (100% share, best estimate)*

Contingent Resources (Eastern Area)	46 million barrels <ul style="list-style-type: none"> sub classification Development Pending 100% Chance of Discovery 80% Chance of Development
Prospective Resource (Western Area)	90 million barrels <ul style="list-style-type: none"> 70% Chance of Discovery 80% Chance of Development

- Higher confidence and significantly material Contingent Resources of 46 million barrels plus 90 million barrels of Prospective Resources in Unit 1B compares to 30 million barrels of Prospective Resources¹ only previously estimated by McDaniel for Unit 1A and Unit 1B combined prior to the results of the Alameda-2 appraisal well being incorporated.
- In other Block 9 activity, the Alameda-3 appraisal well (appraising the two deeper oil-bearing structures underneath Amistad (called Alameda and Marti) has reached 3120 metres MD and is drilling ahead to the first core point in the Alameda Structure planned at 3211 metres MD.

Melbana Energy's Executive Chairman, Andrew Purcell, commented: "This review by McDaniel and Associates lends increased confidence there are 46 million barrels of recoverable higher quality oil in just this one productive Unit 1B (one of four) of this shallowest oil-bearing structure (one of three) from our first discoveries in a ~2,500km² onshore block where we have identified 19 additional leads. An initial field development plan for this relatively shallow/higher quality Unit 1B oil is now being finalised for partner and regulatory approvals with the goal remaining to export the first cargo before the end of 2024."

* Contingent and Prospective Resources Cautionary Statement - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to discovered and 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. All quoted volumes have been taken from independent expert McDaniel & Associates Competent Persons Report dated 20 March 2024. Melbana is not aware of any new information or data that materially affects the information included in that announcement and that all the material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

¹ See ASX announcements dated 4 August 2023 and 28 August 2023

SYDNEY, AUSTRALIA (25 March 2024)

Melbana Energy Limited (ASX: MAY) (**Melbana**) is pleased to report the following results of the independent assessment done by McDaniel & Associates (**McDaniel**) of Unit 1B in Block 9 PSC onshore Cuba (Melbana 30%) - one of four oil bearing units (collectively referred to as Amistad) encountered in the Upper Sheet whilst drilling the Alameda-2 appraisal well – and provide an update on the Alameda-3 appraisal well.

Melbana asked McDaniel to prioritise its assessment of Unit 1B given it had the highest quality oil that flowed unassisted to surface and is the target for the first stage of Melbana’s field development plan for Block 9.

The drilling of the Alameda-2 appraisal well in 2023 provided valuable data that has enhanced our understanding of the resource potential of Block 9.

Subsurface analysis of data obtained, including well logs, FMI logs, DST, extended production tests and core and fluid analyses have been integrated with the re-interpretation of existing data.

The work has focussed on Unit 1B of the Amistad structure, which is heavily fractured, porous and oil filled - as evidenced by core samples (see Figures 1 and 2).

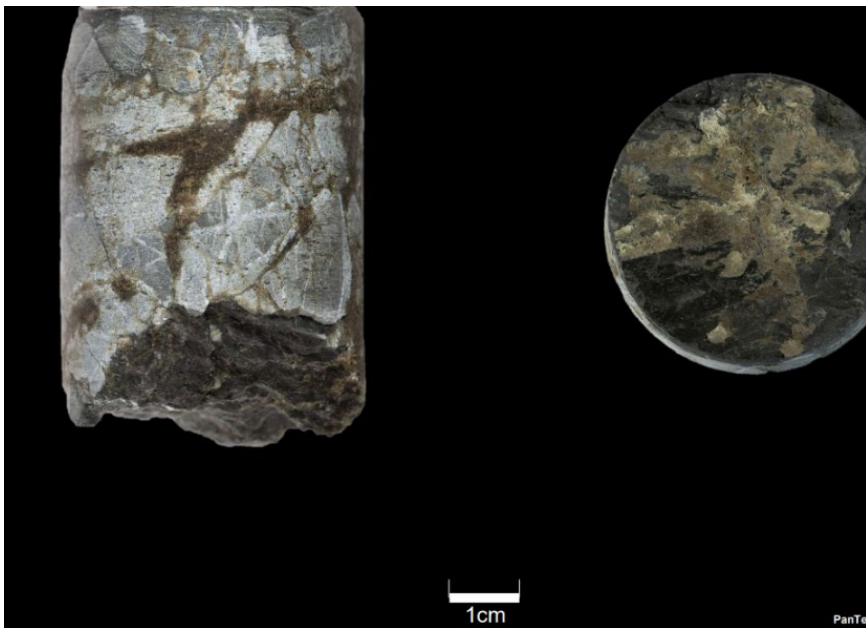


Figure 1 – Highly fractured and oil-stained limestone core plug from Unit 1B



Figure 2 – Oil filled and heavily fractured limestone from Unit 1B

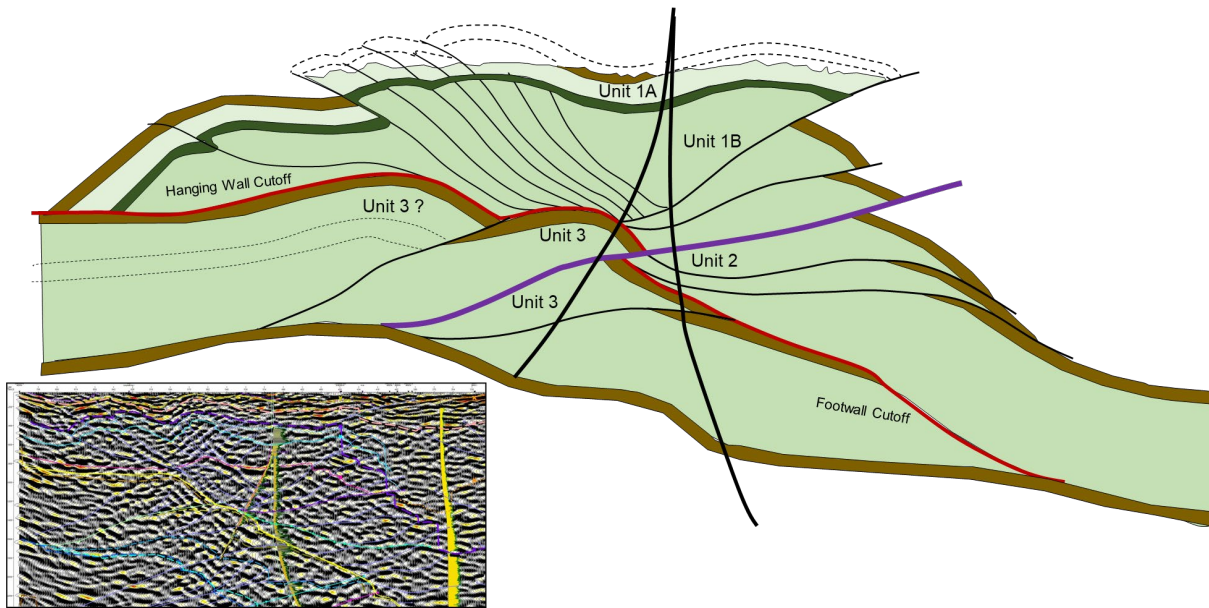


Figure 3 – Cross section illustrating geometry of Amistad sheet

Figure 3 highlights the structural geometries of the Amistad structure that have been used to define the updated resource allocation and categories, which were differentiated into Unit 1A, Unit 1B, Unit 2 and Unit 3. This resource update only concerns the Unit 1B reservoir containing the better quality and most easily exploited oil.

McDaniel have further differentiated the Unit 1B resource categories into Contingent and Prospective Resource categories for eastern and western portions of the Alameda structure. The resource category allocations have been derived from McDaniel's confidence level of the data close to the Alameda-2 well bore (the eastern portion close to the well bore has a higher confidence and has a categorisation of Contingent Resource (Development Pending) and an associated 80% Chance of Development). The western portion remains a Prospective Resource (but with a Chance of Discovery of 70%) that could be similarly derisked by drilling an additional appraisal well in that area.

See Appendix A for summaries of McDaniel's assessment of Unit 1B.

McDaniel are now finalising their work on Unit 1A, the shallowest unit of the Amistad structure.

Progress of Alameda-3 Appraisal Well

Total section depth was called at ~2860 metres MD and the section successfully logged. The 9-5/8" casing was then run and cemented in place in the top seal of the Alameda Structure. The 13-5/8" 10k PSI BOP was then installed and tested before drilling out the casing shoe.

Drilling ahead continues in 8-1/2" hole and is currently at 3120 metres MD enroute to the first coring point planned for 3211 metres MD, after which drilling ahead will continue to the final planned casing point in the seal above the Marti Structure, planned for ~3586 metres MD.

For and on Behalf of the Board of Directors: For further information please contact:

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Ends -

APPENDIX A

TABLE 1 - SUMMARY OF OIIP ESTIMATES

		OIIP – Unrisked² Gross (100%)			Chance of Discovery³
Maturity		Low (P90) MMbbl	Best (P50) MMbbl	High (P10) MMbbl	
Contingent Resources					
Amistad Unit 1B East	Development Pending	130	331	909	100%
Prospective Resources					
Amistad Unit 1B West	Prospect	229	656	1,831	70%

		OIIP – Unrisked² Melbana’s Interest (30%)			Chance of Discovery³
Maturity		Low (P90) MMbbl	Best (P50) MMbbl	High (P10) MMbbl	
Contingent Resources					
Amistad Unit 1B East	Development Pending	39	99	273	100%
Prospective Resources					
Amistad Unit 1B West	Prospect	69	197	549	70%

² Volumes listed are in-place estimates and the recoverable estimates are shown in a separate table.

³ The Chance of Discovery (COD) does not include the chance of development, which McDaniel estimates to be 80%. Quantifying the COD requires consideration of both economic contingencies and other contingencies such as legal, market access, political, social licence, internal and external approvals and commitment to project finance and development timing. As many of these factors are as yet unknown, they must be used with caution.

APPENDIX A (continued)
TABLE 2 - SUMMARY OF RESOURCES ESTIMATES

		Resources – Unrisked⁴ Gross (100%)			Chance of Discovery³
Maturity		Low (P90) MMbbl	Best (P50) MMbbl	High (P10) MMbbl	
Contingent Resources⁵					
Amistad Unit 1B East	Development Pending	16	46	129	100%
Prospective Resources					
Amistad Unit 1B West	Prospect	29	90	264	70%

		Resources – Unrisked⁴ Melbana's Interest (30%)			Chance of Discovery³
Maturity		Low (P90) MMbbl	Best (P50) MMbbl	High (P10) MMbbl	
Contingent Resources⁵					
Amistad Unit 1B East	Development Pending	5	14	39	100%
Prospective Resources					
Amistad Unit 1B West	Prospect	9	27	79	70%

⁴ Volumes listed are full life volumes, prior to any cutoffs due to economics.

⁵ The key contingencies which prevent the Contingent Resources from being classified as Reserves include finalisation of the draft development plan and associated economics, internal and joint venture and regulatory approvals, contractual arrangements and commitment to project finance.

McDaniel's Methodology for Determining Contingent and Prospective Resources

McDaniel & Associates have estimated Contingent and Prospective Resources for Amistad Unit 1B for the Amistad structure using probabilistic methods and in accordance with the 2018 SPE Petroleum Resource Management System ("SPE-PRMS"). In preparing their report, McDaniel relied upon certain factual information including ownership, technical well data, test data and other relevant data supplied by Melbana. The extent and character of all factual information supplied were relied upon and accepted as represented without independent verification. McDaniel has relied upon representations made by Melbana as to the completeness and accuracy of the data provided and that no material changes in the performance of the properties has occurred, nor is expected to occur, from that which was projected in their report between the date the data was received for the evaluation and the date of the report.

Contingent and Prospective Resources

Unless otherwise specified, the information that relates to Contingent Resources and Prospective Resources for Melbana is based on, and fairly represents, information and supporting documentation compiled by Mr. Peter Stickland, who is a Director of the company and has more than 30 years of relevant experience. Mr. Stickland is a member of the European Association of Geoscientists & Engineers and the Petroleum and Exploration Society of Australia. Mr. Stickland consents to the publication of the resource assessments contained herein. The Contingent Resource and Prospective Resource estimates are consistent with the definitions of hydrocarbon resources that appear in the ASX Listing Rules.

GLOSSARY

Term	Meaning
Barrel	One barrel of oil; 1 barrel = 35 imperial gallons (approx.) or 159 litres (approx.); 7.5 barrels = 1 tonne (approximately, depending on the oil density); 6.29 barrels = 1 cubic metre.
BOPD	Barrels of oil per day
Contingent Resources	Those quantities of petroleum that are estimated, as of a given date, to be potentially recoverable from discovered accumulations but which, for one or more reasons, cannot yet be classified as Reserves
COS	Chance of Success, in this instance relates to the chance of discovery for a prospective resource volume.
DST	Tests conducted with a downhole shut-in tool with the drillstring still in the hole
EPT	Extended production tests to better understand reservoir performance and logistics capabilities
FMI	Formation Microresistivity Imaging – data that aids the interpretation of the subsurface
m	Metres
M	Thousands
MD	Measured depth
OIIP	Oil Initially In Place - the amount of crude oil first estimated to be in a reservoir
Prospective Resources	Those quantities of petroleum that are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations
PSI	Pounds per square inch
sg	Specific gravity
TD	Total depth
TVDSS	True vertical depth sub sea
Unrisked	Prior to taking into account the chance of discovery