

## Block 9, Cuba - Commencement of Drilling Preparations

### Highlights:

- Land preparation activities commenced for the construction of the well pad for Alameda-1, the first well of the two well drilling campaign in Block 9, Cuba
- Negotiations with preferred drilling contractor advanced. Contract award imminent
- International tender for long lead items (tubulars, accessories etc.) completed
- \$2.4 million of Past Costs received, with the remaining ~\$3 million (and additional partner contributions) called for in early October to meet projected payments schedule
- Commencement of drilling projected to be mid Q1 2021, subject to equipment delivery occurring on schedule and COVID related travel restrictions easing
- Block 9 drilling program is a major opportunity for Melbana's shareholders:
  - It will test four separate targets with a total Prospective Resource of 236 million barrels of oil (Best Estimate)<sup>1</sup>, two of which have been drilled previously and successfully intercepted and flowed higher quality hydrocarbons than is typically found in Cuba
  - Potential for better recovery rates due to possibility of lighter oil, which would lead to better recovered volumes in the success case
  - Melbana has a significant (30%) interest in this opportunity with its share of costs (15%) mostly met by the recovery of its Past Costs
  - Melbana is operator of the drilling program and therefore has the responsibility to deliver this project on time and on budget
  - It will satisfy all work obligations in Block 9 until November 2023
  - Field development, in the success case, assisted by proximity to good oil sector infrastructure and a large and experienced partner

<sup>1</sup> 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 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, released to ASX on 7 August 2018, as adjusted by Melbana for area relinquishment. 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.

**MELBOURNE, AUSTRALIA (24 September 2020)**

Melbana Energy Limited (ASX: MAY) (**Melbana**) is pleased to advise that it has commenced civil works for construction of the first well pad in support of its two well drilling program onshore Cuba.

This marks the beginning of field activities that will support the commencement of operations in Block 9; the drilling of two onshore exploration wells testing four separate targets with a combined Prospective Resource of 236 million barrels of oil (Best Estimate)<sup>1</sup>. Melbana has a 30% interest in Block 9.

**Prospectivity**

Cuba has a significant and established hydrocarbon sector. About 97% of its oil production occurs in a northern belt of oil production extending about 150 km to the east of the capital, Havana. The most significant discovery to date is the Varadero field, a heavy oil field estimated to have more than 11 billion barrels of oil in place.

Melbana’s contract area lies to the east and on trend of this northern production zone – close to the Varadero discovery.

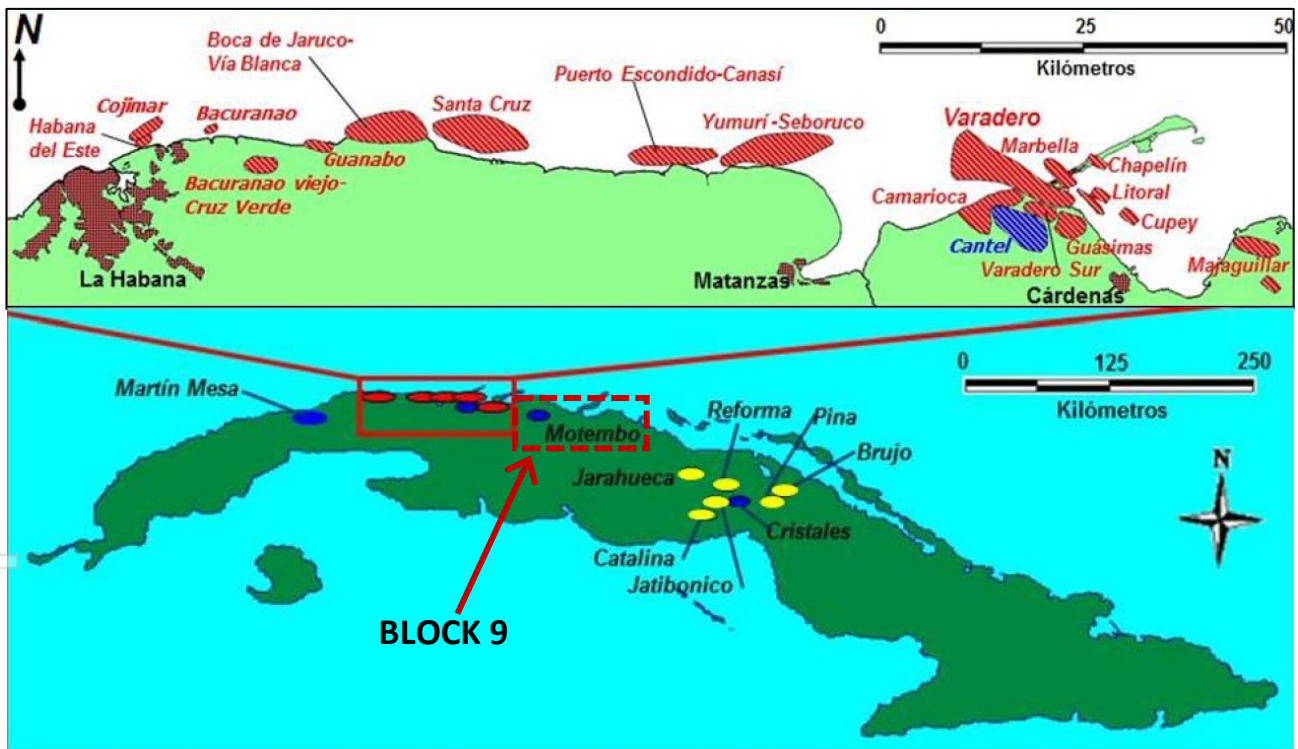


Figure 1 - Cuba's Northern Oil Production Zone (red, blue and yellow areas are existing oil fields)

The targets for Melbana’s proposed two well drilling program in Block 9 were selected following an extensive review of the available data, which included several generations of seismic surveys, gravity studies and prior wells.

Melbana’s first well, Alameda-1, is targeting the same structure drilled in the late 1980s by CUPET (Cuba’s National Oil Company) with a well they called Marti 5, which itself was a follow up to Marti 1 and 2 – both of which had recorded oil shows. Marti 5 recorded oil shows over an 850 metre gross interval and recovered a lighter oil (24° API) than is typically found in Cuba (the higher the API number, the lighter the oil).



In the early 2000s, CUPET revisited the Marti 2 and Marti 5 wellsites and found them to be leaking oil. A sample was taken from Marti 5 and it was found to be 32° API. A second sample taken from Marti 5 before CUPET plugged both wells was reported to be ~38° API.



Figure 2 - Marti 5 wellsite (2003)



Figure 3 - Marti 2 wellsite (2002)

Melbana's first well, Alameda-1, is positioned close to where these previous wells were drilled in order to test a number of the structures identified by its analysis of the seismic and gravitational data as the possible source of these hydrocarbons.

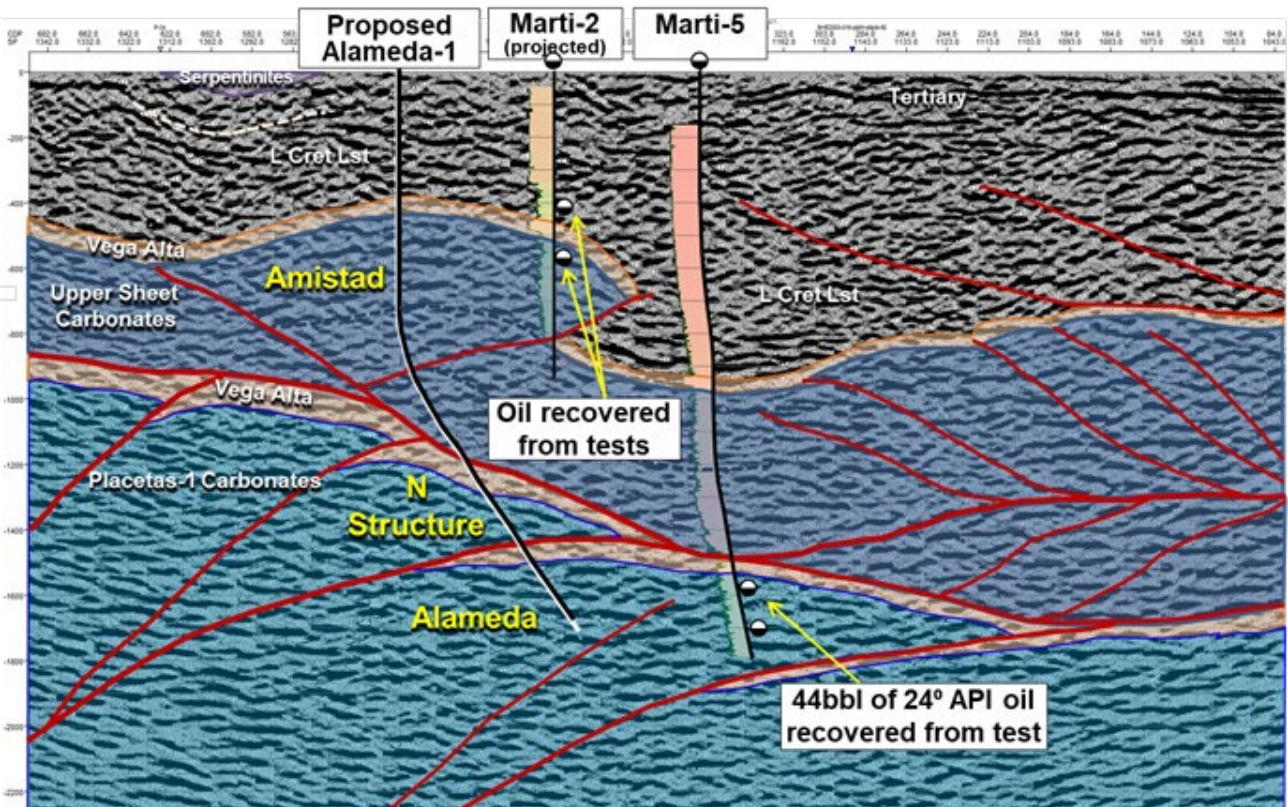


Figure 4 - Location and trajectory of Melbana's first exploration well – Alameda-1



The targets of Melbana's Alameda-1 well have been independently assessed to have a total Prospective Resource of 141 million barrels of oil (Best Estimate).

Table 1 – Prospective Resource of Alameda #1

Objective	Chance of Success	Prospective Resource (million barrels) <sup>1</sup>			
		Low	Best	High	Mean
Amistad/U1	15%	24	60	132	71
N	23%	4	9	20	11
Alameda	32%	39	72	128	79
<b>Total</b>			<b>141</b>		

The second well Melbana proposes to drill is Zapato-1. Its objective is the source of the historic Motembo oil field – Cuba's oldest oil field that reportedly contained a very light oil (50 – 64.5° API) present at surface.

The structure Melbana is targeting with Zapato-1 was identified by studying pre-existing gravity and magnetic data sets along with the results of a gravity and magnetic study Melbana commissioned over the Zapato prospect. These data indicated a strong gravity and magnetic alignment with a structural interpretation made by Melbana's technical team derived from seismic and surface data.

Our assessment is that the large Zapato structure (with nearly 1,000 metres of vertical relief) may be the primary structure, and thus the source of oil, for the shallow Motembo oil field discovered in the late 19<sup>th</sup> Century. There are no previous wells that have drilled deep enough to intercept the Zapato structure.

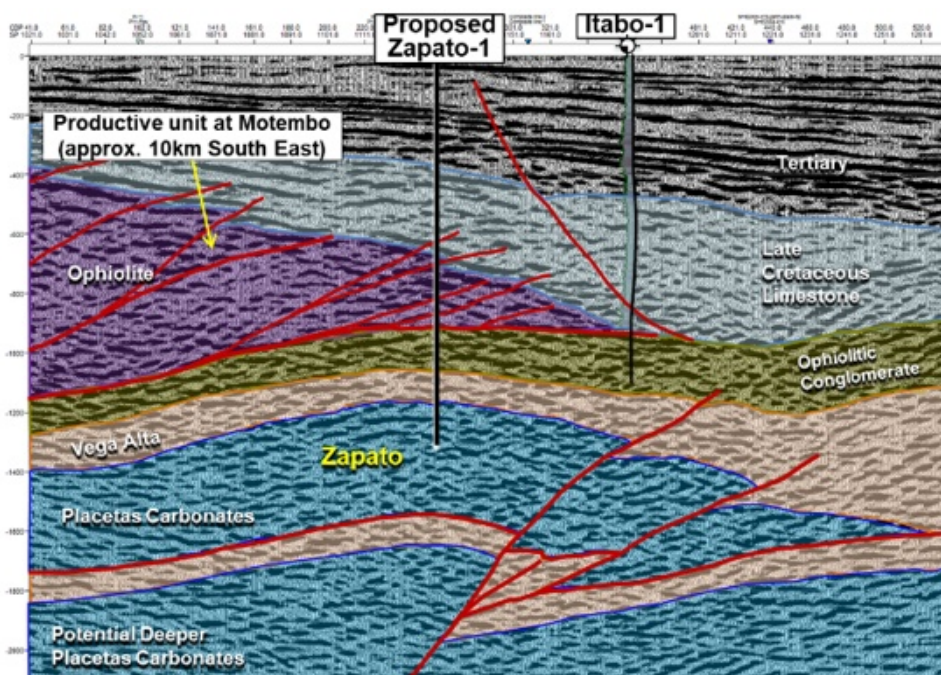


Figure 5 – Location of Melbana's second exploration well - Zapato #1

Zapato-1 has been independently assessed to have a total Prospective Resource of 95 million barrels of oil (Best Estimate).

Table 2 – Prospective Resource of Zapato-1

Objective	Chance of Success	Prospective Resource (million barrels) <sup>1</sup>			
		Low	Best	High	Mean
Zapato	23%	38	95	214	114

Together, Melbana’s two exploration wells in Block 9 will test four separate targets with a total Prospective Resource of 236 million barrels of oil (Best Estimate).

### Site Preparations

The drilling locations for both wells are in flat, open country with nearby access to good, all-weather roads.



Figure 6 – Well site for Alameda-1, nearby sealed all weather road, well site for Zapato-1 (L-R)

An independent Cuban consultant is currently making a written and photographic record of the condition of the well sites, which Melbana has voluntarily commissioned in addition to the baseline environment study another independent consultant previously completed as part of the permitting process. Civils contractors are currently on site preparing an area for the installation of camp facilities, following which surveyors are due to arrive on site to peg out the location of the well pads and establish other data points of interest to the construction crew.

### Project Timeline

An estimate of the projected workflow will be provided once contracts have been signed with the drilling contractor and the supplier of the casings etc. needed for this drilling program, the latter being the longest lead item and therefore on the critical path. Indicatively, though, shipments of supplies and equipment to Cuba are reasonably unaffected by COVID management protocols currently in place in Cuba (and in other relevant countries) so this is not expected to have a material impact on the forecast timing of deliveries.

Movement of Key Management Personnel (KMP) internationally is currently complicated, but they are not forecast to be needed in country for several months yet and it is hoped that the situation may

have begun to normalise before then. In any case, a contingent plan for KMP travel to Cuba has been developed. In the meantime, Melbana's highly experienced personnel in Cuba, assisted by a number of contractors, are doing an excellent job managing the preparations for the commencement of drilling operations.

**Melbana Energy's Executive Chairman, Andrew Purcell, said:**

*"We are pleased to have commenced field works as it puts us firmly on the path to testing the exciting potential that Block 9 offers our shareholders. We are deeply engaged in planning and preparations and will continue to update the market as significant milestones are passed. Cuba has a prolific hydrocarbon zone and we have invested considerable time and money into better understand the opportunity offered by Block 9. Success would be transformative for our company, almost regardless of the oil price given Cuba's historically low cost of production, and development of any discovery would be greatly simplified by proximate access to good and existing oil sector infrastructure."*

**For and on Behalf of the Board of Directors:**

Mr Andrew Purcell  
Executive Chairman

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