

## Drilling update at Alameda-1 – Strong oil shows

### Highlights

- **Strong oil shows/elevated gas readings encountered in the “N” Sheet – the first of the well’s Primary Targets**
- **This is the second significant interval of oil shows in this well, with the second and largest Primary Target still ahead (prognosed to commence at about 3,500mMD)**
- **Drilling has progressed to a depth of 3,200mMD as of a short time ago**

**SYDNEY, AUSTRALIA (1 FEBRUARY 2022)**

Melbana Energy Limited (ASX: MAY) (**Melbana**) is pleased to provide this update on its drilling operations at its Alameda-1 exploration well in its Block 9 contract area onshore Cuba.

The Alameda-1 8-1/2” hole section has now been drilled through the Vega Alta seal and is currently at a depth of 3,200m within the first of the Primary Targets referred to as the N Sheet. Strong oil shows have been recorded from limestones within the unit. Free oil has been observed within the mud system at surface along with elevated mud gas readings and associated hydrocarbon fluorescence of up to 95%. The high quality shows have been recorded from 3,055 to 3,200mMD to date (over a gross interval of 145m) to date which also contains zones with good indications of fracturing (that is likely to provide enhanced deliverability from the reservoir). There was also fluorescence (but not as high gas) starting at 2,900m with some oil in samples and on shakers from 2,950mMD. After completing a wiper trip, drilling is now continuing through the N Sheet toward the prognosed base of the interval expected at ~3,400m. Further information will become available once wireline logs have been acquired over the interval and interpreted.



*Figure 1 - Significant volumes of oil on the shakers at intercept of "N" structure*

The next Primary Target is the Alameda (I Sheet) limestones penetrated by Marti-5 which recorded significant oil shows from the interval and hydrocarbon recoveries were reported. This target is interpreted to be separated from the current N Sheet by a thrust fault and another repeat of the Vega Alta seal.

This following more detailed review is for the information of investors, in particular those who would like more technical information, who have been following progress with this well.

Melbana's technical directors, Peter Stickland and Michael Sandy, are geologists who collectively have extensive experience of thrust belts such as in Cuba, and here are some of their observations:

### The unexpected shallow discovery

We have both found that nearly every well generates some unexpected results, and this is particularly true of wells in thrust belts where the data quality is often poor and the geology highly complex. While the 670m of oil encountered in Alameda-1 from a depth of 454m was an unexpected bonus, we are aware of numerous examples of serendipitous discoveries elsewhere. It is possible to increase the chances of finding "unexpected" oil by drilling in very oil rich regions where oil has been found throughout the geological column. Cuba is one such place. You could say you make your own luck.

### Alameda-1 well was designed to intersect three separate objectives

Ideally, this would have involved each of the three objectives being intersected at the top of their structures. However, designing a well plan involves compromise, and thus, based on the geological mapping, the N structure would have to be intersected at a less than optimal location, being "down dip" from the top of the structure.

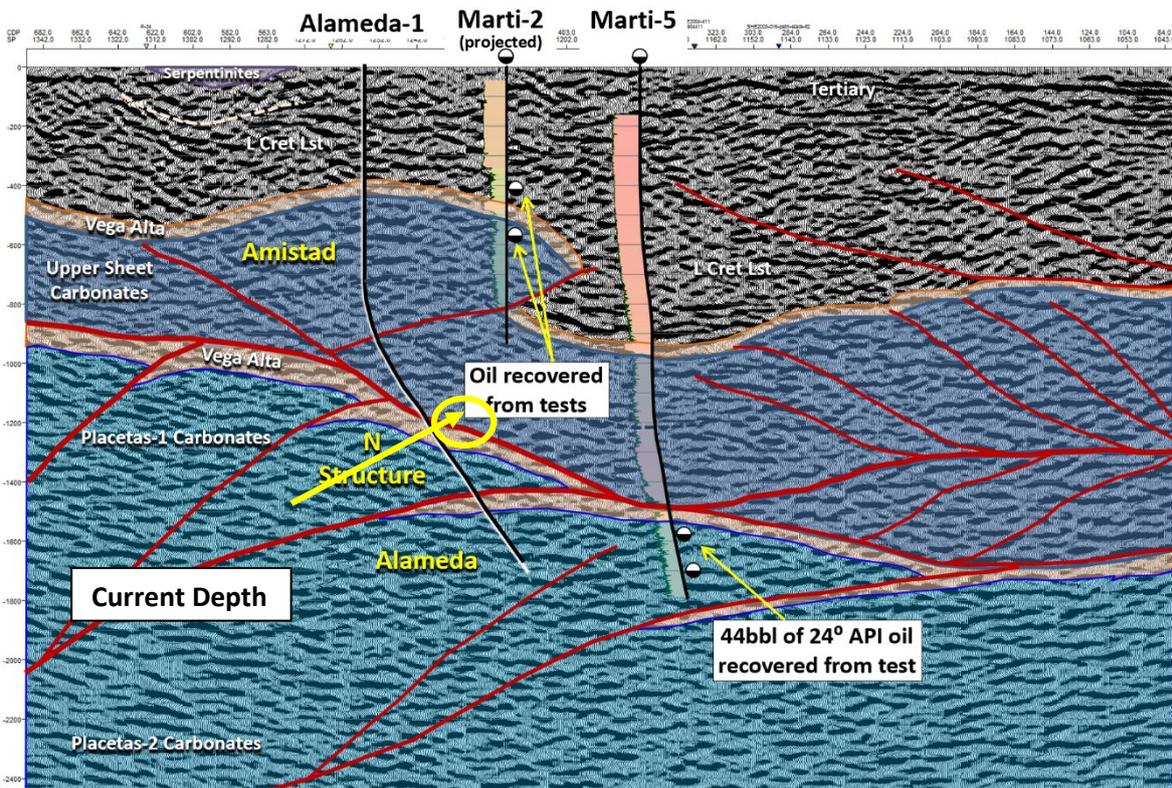


Figure 2 - Predrill geological interpretation for the Alameda-1 well

The potential upside in this scenario, however, is that finding even a thin oil column in the N objective at the current location could indicate a significant resource “updip” of the well bore. The early signs of encouraging oil and gas shows/flows bodes very well for another significant potential oil pool in this well. Significance of these shows need to be determined by logging.

**Melbana Energy’s Executive Chairman, Andrew Purcell, commented:** “Given the poor quality data and highly complex geology that was available to us, the level of accuracy of predicting target depths of objectives was expected to be quite low. Therefore, the intersection of what is believed to be the “N” objective limestone at very close to the prognosed depth (~3,000mMD) is very impressive indeed. It reflects the ongoing excellent work by Melbana’s geoscience team, Errol Johnstone and Dean Johnstone, both of whom have decades of experience working in thrust belts. Being able to think in three dimensions, interpret highly complex geology and come up with viable geological models are rare and valuable skills and essential for Melbana’s Cuban work programs.

We are very encouraged by what this well has told us to date, particularly given we have encountered oil shows now over two significant intervals with this latest area also having significant gas influx, which is a good sign that any reservoir may be well charged. Subsequent logs and studies will tell us the significance of what we’re encountered but given the size of these structures it allows for the possibility of a material accumulation of oil”.



*Figure 3 - Melbana Energy's Executive Chairman (2nd from right) with members of the company's operations office in Varadero, Cuba*

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

Mr Andrew Purcell  
Executive Chairman

Mr Theo Renard  
Company Secretary  
+61 2 83 23 66 00

Ends -