





## Mayan Energy – Update Note

22<sup>nd</sup> November 2017

### Placing funds provide catalyst for continued re-rating of shares

Following news on the 16<sup>th</sup> Nov 2017 of a £2m placing & investment into SPV Deloro Energy LLC, in which a 49% interest is being acquired from Petroteq in the Utah based Asphalt Ridge heavy oil prospect, we revisit our valuation model for Mayan Energy. Trading at less than 2 times our earnings estimates for FY18 the stock remains dramatically undervalued.

#### Oil production expected to hit 500 bopd net by early summer 2018

Mayan is developing shallow low-risk projects with low levels of capex and existing infrastructure in the mature oilfields of Texas/Louisiana. Management plans to add 1,000 bopd annually with the promise to shareholders of no shortage of high impact value trigger events over the next few months.

#### New Asphalt Ridge project could add 400 bopd net within 30 months

The latest deal is a heavy oil play in Utah where oil sands are mined and oil extracted by a patented advanced technology invented by £40m market cap TSX-listed Petroteq Energy. In this deal, Mayan/partners will gain access to this technology to roll out to similar plays in Utah and worldwide.

#### Significant increase in reserves is on the cards

Mayan has fast improving fundamentals and significant inventory of new wells & reserves, which should provide a significant reserves upgrade which we anticipate will provide a material uplift in the value of the company.

#### DCF analysis reveals an upside of almost 700%

Discounting the forecast cash flows (at a conservative rate) from the workovers/new wells at the existing operations, as well as the new Asphalt Ridge project allows us to confidently increase our target price to 2.1p. **We update coverage of Mayan Energy & move to a Conviction buy stance.**

Table: Financial overview

Year to end Dec	2015A	2016A	2017E	2018E
Revenue (US\$m)	0.84	0.27	0.25	17.74
PTP (US\$m)	(6.19)	(7.15)	(2.42)	7.02
EPS (US\$cents)	(48.34)*	(24.27)*	(0.64)	0.56

Source: Company accounts & Align Research

\* adjusted for 1-for-400 consolidation

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### New Conviction Buy stance. Revised near-term price target 2.1p



#### Key data

EPIC	MYN
Share price	0.575p
52 week high/low	12.40p/0.23p
Listing	AIM
Shares in issue	1,166.3m
Market Cap	£6.71m
Sector	Energy Producers

#### 12 month share price chart



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## Update

Mayan has become clearly focused on developing high impact, but low risk distressed assets in the mature producing basins within the states of Texas and Oklahoma. **Recent announcements have shown that the company is growing a portfolio of such properties to provide sustainable cash flow and dividend growth.** On 16<sup>th</sup> November 2017, the company announced a placing to raise £2 million at 0.6p a share and the investment in a heavy oil project in Utah called Asphalt Ridge.

## Asphalt Ridge

TSX-listed Petroteq Energy owns 2,230 acres of land under multiple oil sand leases in Utah, within the well-known heavy oil triangle. This is a near-term heavy oil development project with 87 million stock tank barrels Contingent Resource in place. **Chapman Petroleum Engineering in their November 2017 Contingent Resources report puts a best estimate US\$135 million pre-tax NPV(10) and a post-tax NPV(10) US\$90m based on production rising to 2,500bopd.**

Newly established company Deloro is entering a joint venture with Petroteq, by acquiring a 49% stake for US\$10 million, in staged payments. Tranche 1 is US\$2.5 million to be paid immediately to fund completion of plant upgrades and begin initial production. Tranche 2 of US\$3.5 million is due once the plant has been producing over 1,000 bopd for more than 30 days. While, tranche 3 is for US\$3.95 million and is due to be paid on or before 1<sup>st</sup> June 2018.

Mayan is acquiring an 8.3% stake in the Asphalt Ridge project by investing US\$1.505 million (US\$1.005 million cash and the remainder in shares at the placing price of 0.6p) in Deloro to gain a 17.6% interest. Deloro shareholders also include Mayan Directors Charlie Wood, Eddie Gonzalez and Dr David Khan who between them have a combined 51% stake. Dr David Kahn's involvement in the Asphalt Ridge project goes back 18-24 months and he has provided the opportunity for Mayan to participate on what looks like an attractive valuation.



*Pilot bitumen extraction plant and small-scale mine at Asphalt Ridge. Source Chapman Petroleum Contingent Engineering November 2017 Contingent Resource report*

The project consists of a small-scale mine and a bitumen extraction plant. The material being mined is very close to the surface and has 8-12% oil saturation. The process uses condensate from shale plays as a solvent which is mixed with crushed oils sands to dissolve the bitumen. Also, adding ultra-low surface tension surfactants to speed up the process. This mixture is fed into an extraction column, and a centrifuge, where the solvent and bitumen are separated from the sand. The final product is a mix of bitumen and solvent with a 16-18 °API, very little sulphur and metals which makes it highly acceptable to local refineries.

In 2016, production was in the range of 276 - 450 bopd, depending on ore quality and the number of shifts worked. Since then the plant has been moved to be closer to the mine and its capacity expanded with a new tower and centrifuges. **Production of 1,000 bopd (83 bopd net to Mayan) is expected by February 2018 at a cost of US\$10.7 million. Further upgrades are expected to 2,500bbl/d (200 bopd net to Mayan) by early 2019 and 5,000 bbl/d (400 bopd net to Mayan) by early 2020 with respective additional capital costs of US\$11.5 million and US\$5.7 million, which are, importantly, expected to be largely debt-funded.**

**Sales price is WTI less US\$3 and all in costs are estimated at \$18-25 per barrel, and so the project generates attractive net back margins of US\$15-20/bbl (at US\$45/bbl).** The Chapman report November 2017 defines Contingent Resources of 87 mmstb in place. However, after six months of continuous production at 1,000 bopd would trigger an upgrade of a materially significant portion of the existing Contingent Resources to 1P/2P reserves.

Petroteq has patented this powerful technology. As part of the deal, Deloro will be gaining the rights to use this technology both in the US and internationally. Asphalt Ridge just represents one lease and the Mayan and partners in Deloro are looking at other leases in Utah. **However, far greater opportunities exist globally as there are around thirty other large asphalt deposits throughout the world.**

## Other operations

Good progress has been made in recent months at the Stockdale and Forrest Hill Fields where the team is aiming at the “low hanging fruit”. At Stockdale (60% WI, 45% NRI), relogging using the quad neutron tool identified new zones. These have been perforated and without any stimulation resulted in 15 bopd and 100 barrels of water per day. The well has been plugged for the moment and when in production will have co-mingled production from two zones. In this area, 30-50 bopd per well seems to be the norm. At present, permitting for a water disposal is underway to allow water from 10 wells in this area to be reinjected into the Austin Chalk. This level of water cut would be uneconomic offshore however, onshore in the US in this location, the board believe that these costs are highly manageable.

At Forest Hill Field (70% WI, 52.5% NRI), the first well had flush production of 150 bopd and then 40-45 bopd consistently. Oil currently gets squeezed up between the well tools and the fairly narrow tubing and appears with the consistency of peanut butter. By upping the diameter of the tubing, changing the pump and adding some stimulation plus surfactant to reduce the viscosity is expected to be enough to allow production in the range of 70 -100 bopd. **Soon the team plans to be working over two or three wells a quarter which will allow production to rise significantly from the company's current level.**

The board is comfortable that 300-500 bopd (net to Mayan) will be achievable by late spring 2018 (70% Forrest Hill and 30% Stockdale). Our oil production forecasts are for an average of 650 bopd net to Mayan in 2018 from these oil projects whilst at Asphalt Ridge, we are forecasting oil production to average 2,500 bopd (207 bopd net to Mayan) for 2018. **This represents a big increase on current production, but is just the start as Mayan has its eyes set on becoming a multi-thousand barrel a day company.** The company expects to be cash flow positive in the next quarter (Q1 2018). Mayan has a significant inventory of wells and reserves. Given the progress that has been made on the ground & the successful results of workovers, it will be of little surprise that there is a significant upgrading of reserves to come which should provide a further uplift in the valuation of the company.

## Valuation

Our model has been conservatively formulated based our analysis of the management plans for existing operations and the recent acquisition. We have determined an after-tax NPV(12) of US\$57.13 million for the existing operations which is a higher figure than included in our initiating coverage note, due to the improved outlook for the oil price and a better understanding of the potential of the wells and the schedule of work at the various projects. An oil price for WTI crude of US\$56.70 per barrel has been used for 2018, with an average price of US\$72 per barrel over 2018 – 2025.

Our analysis of Asphalt Ridge is based on the Chapman Engineer November 2017 report using similar capex and operating costs, however we have employed our WTI crude price deck whereas Chapman uses a flat oil price of US\$54 per barrel. In contrast however, in our model the operating costs are escalated, whereas the independent engineering report uses flat costs. Cash flows over a thirty year period have been determined. It has been assumed that a 1,000bbl/d plant would be operational in February 2018 and expanded with 5,000 bbl/d targeted for 2019. Product parameters are based on bitumen recovery of 0.60 bbls bitumen per ton of oil sands processed with 0.25 bbls solvent added per bbl bitumen. Assumptions on input costs and sales price are in-line with Petroteq’s expectations which are to pay 70% of WTI price for condensate and receive 90% of WTI for the blended product.

We have sought to adjust for risk in selecting to use the after-tax NPV(12) figure of US\$401.26 million for Asphalt Ridge, where the company’s 8.3% stake would be valued at US\$33.30 million. The move in production from the pilot plant stage to 1,000 bopd & far larger name plate capacity carries additional risks and so in order to remain conservative, we have further risked this value by 50% to US\$16.65 million. The total SOTP valuation based on NPV(12) numbers was calculated to be £57/48 million. Based on the number of shares currently in issue suggests a price of 4.93p per share, and 4.58p on a fully diluted basis.

Discount rate	10%	12%
Existing operations - NPV US\$ million	61.98	57.13
Asphalt Ridge risked (8.3%) – NPV US\$ million	19.71	16.65
Cash US\$ million	1.70	1.70
Sub-total valuation US\$ million	83.39	75.48
Sub-total valuation £ million	63.17	57.18
Block Energy stake £ million	0.30	0.30
<b>Total valuation £ million</b>	<b>63.47</b>	<b>57.48</b>
<b>Valuation per share (1,166,335,931 shares)</b>	<b>5.44p</b>	<b>4.93p</b>
<b>Valuation per share fully diluted (1,254,062,157 shares)</b>	<b>5.06p</b>	<b>4.58p</b>

*Table: Sum-of-the-parts valuation for Mayan Energy. Source: Align Research*

We initiated coverage with an NPV (12) valuation per share of 3.46p based on 800,310,293 shares being in issue. The new management team has made no secret of their intent to bring in further exciting projects once the company achieves a decent level of sustainable oil production and can afford to fund the development costs on additional properties. On the back of the anticipated good news flow we expect to further revisit the target price in moving towards the NPV(12) value as oil production rises & the expansion programme begins at Asphalt Ridge. **Following the acquisition of a stake in this Utah-based oil sands project with its imminent oil production, long life and technology play, we accordingly increase our near-term price target (based on 5 times FY2018 earnings estimates, at current FX rates) from 1.6p on initiation to 2.1p and now move to a Conviction Buy stance.**

## Forecasts

(000' US Dollars)

Year end 30 December	FY2015a	FY 2016a	FY 2017e	FY 2018e
<b>Continuing operations</b>				
Revenue	841	280	250	17,740*
Cost of sales	(961)	(786)	(800)	(7,820)
<b>Gross profit/(loss)</b>	<b>(120)</b>	<b>(516)</b>	<b>(550)</b>	<b>9,920</b>
<b>Administration expenses</b>				
Depreciation of property, plant and equipment	(1,359)	(4,271)	(1,000)	(1,000)
Profit on disposal of interests and settlement of liabilities at a discount	-	-	834	-
Other administrative expenses	(4,301)	(1,777)	(1,700)	(1,900)
<b>Total administrative expenses</b>	<b>(5,660)</b>	<b>(6,498)</b>	<b>(1,866)</b>	<b>(2,900)</b>
<b>Operating profit/(loss)</b>	<b>(5,780)</b>	<b>(7,014)</b>	<b>(2,416)</b>	<b>7,020</b>
<b>Net finance (loss)/income</b>				
Finance income	20	2	-	-
Finance costs	(428)	(137)	-	-
<b>Profit/(loss) before income tax</b>	<b>(6,188)</b>	<b>(7,149)</b>	<b>(2,416)</b>	<b>7,020</b>
Income tax expense	-	-	-	-
<b>Profit/(loss) after tax for the year</b>	<b>(6,188)</b>	<b>(7,149)</b>	<b>(2,416)</b>	<b>7,020</b>
<b>Other comprehensive income/(loss)</b>				
<b>Items that may be subsequently reclassified as profit or loss</b>				
Currency translation differences	254	86	30	-
Total comprehensive income				
<b>Total comprehensive income for the year</b>	<b>(5,934)</b>	<b>(7,149)</b>	<b>(2,386)</b>	<b>7,020</b>
<b>Profit/(loss) for the year attributable to:</b>				
Owners of the parent	(6,137)	(7,147)	(2,408)	6,970
Non-controlling interest	(51)	(2)	(8)	50
<b>Profit/(loss) for the period from continuing operations</b>	<b>(6,188)</b>	<b>(7,149)</b>	<b>(2,416)</b>	<b>7,020</b>
<b>Profit/(loss) per share from continuing and discounted operations.</b>				
Basic loss and diluted per share (US cents per share)	(47.34)'	(24.27)'	(0.64)	0.56
'Note: 2015 & 2016 figures adjusted for 1-for-400 consolidation				
Weighted average number of shares	12,539,954'	29,461,074'	376,402,320	1,249,897,575
Total shares plus options	17,456,469'	52,872,847'	1,254,062,157	1,392,180,227

\*Revenue figure based on the assumption of 650 bopd net from oil projects and 2,500 bopd (net 207 bopd to Mayan) gross production at Asphalt Ridge

Source: Company/Align Research



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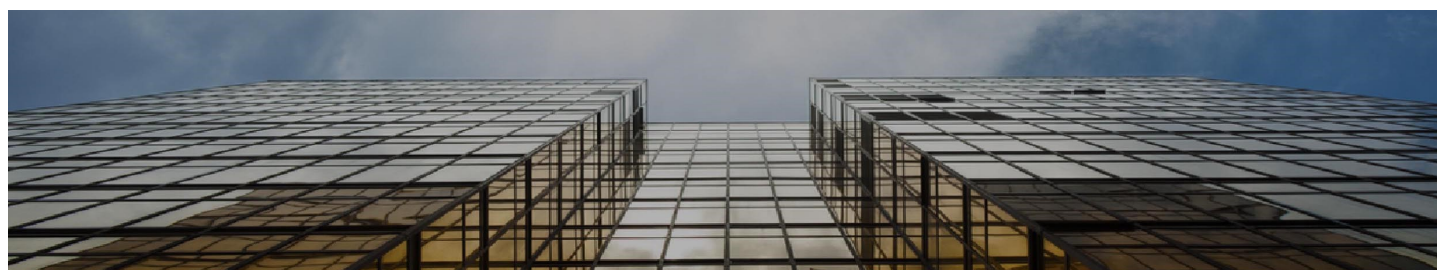
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