

# Investor Update

September 2017



## *Forward-looking Statements and Resources*

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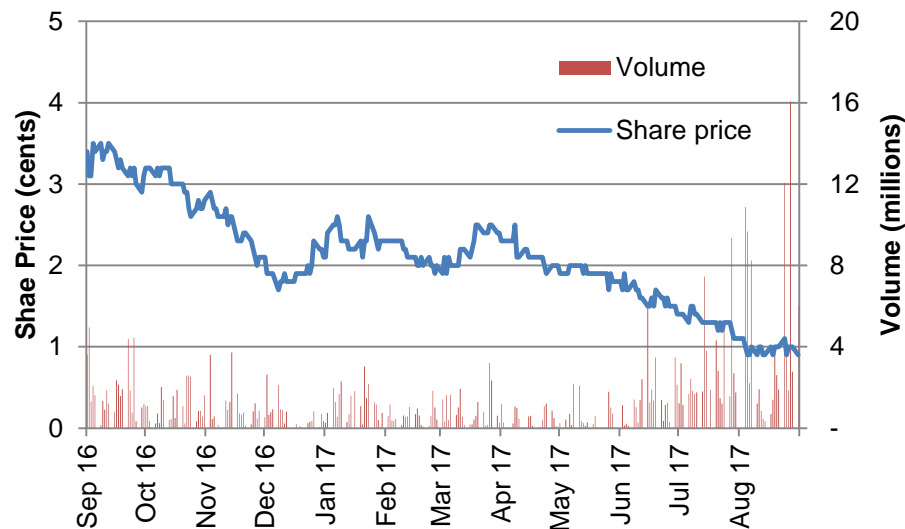
**Contingent and Prospective Resources:** The information in this presentation that relates to Contingent Resources and Prospective Resources for Melbana Energy is based on, and fairly represents, information and supporting documentation compiled by Peter Stickland, the Managing Director and Chief Executive Officer of Melbana Energy. Mr Stickland B.Sc (Hons) has over 25 years of relevant experience, is a member of the European Association of Geoscientists & Engineers and the Petroleum and Exploration Society of Australia, and 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 Listing Rules. Conversion factors: 6 Bscf gas equals 1 MMboe; 1 bbl condensate equals 1 boe.

# Company Overview

## Company Data

<b>Index</b>	S&P/ASX All Ordinaries
<b>ASX Ticker</b>	ASX:MAY
<b>Pro-forma shares on issue*</b>	~1,304m
<b>Options*</b>	~123m
<b>Share Performance Rights</b>	5.33m
<b>Market Cap*</b>	~\$13m (at 11 Sept)
<b>Cash*</b>	~\$5m
<b>Debt</b>	Nil
<b>Enterprise Value*</b>	~\$8m

## 12 month share price performance



## Board

Peter Stickland

Managing Director & CEO

Andrew Purcell

Non-Executive Chairman

Michael Sandy

Non-Executive Director

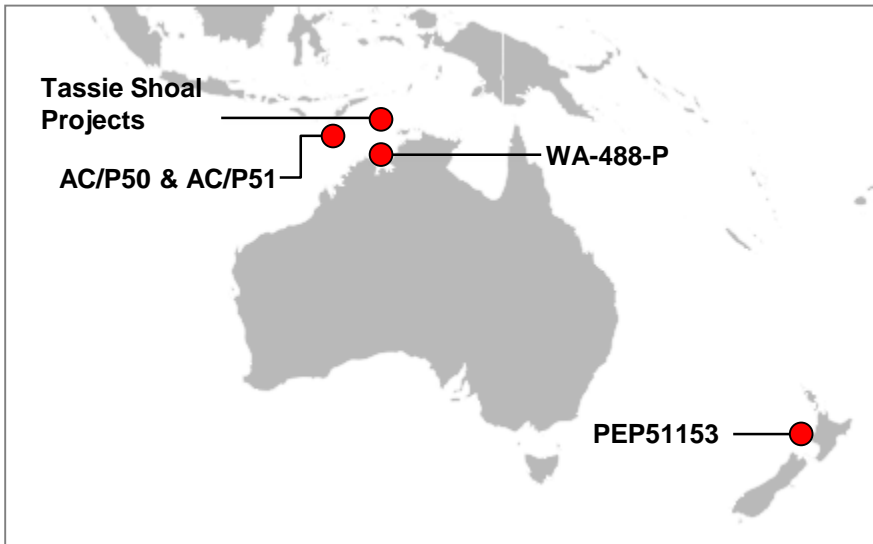
\*Based on completion of Entitlement Offer, but prior to completion of Underwrite for additional ~190m shares, ~63m options and ~\$1.9m new funds

# Melbana Project Summary



## Cuba

- Block 9 exploration potential of ~12.5 billion barrels of oil-in-place with recoverable Prospective Resources of 637 million barrels (100% share, unrisked Best Estimate)\*
- Proven oil trend, ~30km from giant 11 billion barrel oil-in-place Varadero field
- High graded Alameda-1 prospect presents an opportunity to drill three objectives with combined exploration potential of over 2.5 billion barrels oil-in-place and 130 million barrels of recoverable (100% unrisked, Best Estimate)\*
- **Targeting drilling up to 2 wells commencing in mid 2018**
- Cuban civil engineering consultancy firm engaged and survey of well sites commenced
- Farmout process underway
- Only ASX listed company with Cuban energy exposure



## New Zealand

- Operator advises high impact Pukatea-1 anticipated to commence drilling mid-January 2018 on PEP51153 (Melbana 30% share)
- Prospective Resource of 12.4 million boe (unrisked Best Estimate, 100% share)\*, reservoir capable of rates up to 5,000 barrels per day
- Melbana is considering opportunities to reduce its funding requirements while maintaining exposure to the highly prospective Pukatea-1 well in New Zealand

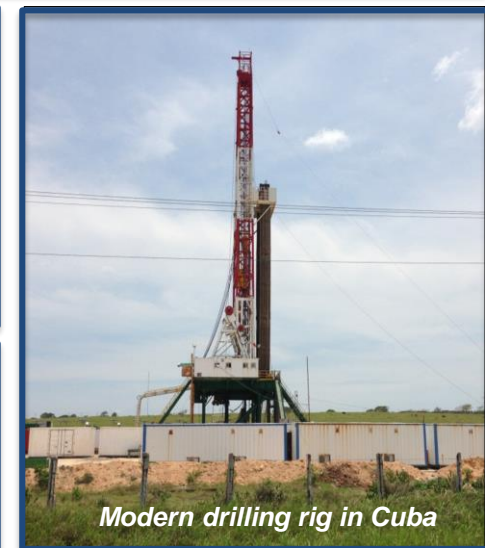
## Australia

- Beehive prospect located in WA-488-P is potentially the largest undrilled conventional target in Australia
- Negotiations underway which, if successful, would result in one or more parties farming into WA-488-P to fund future activities

**Cuba**

# Cuba Block 9 – An Overview

- Multi-billion barrel potential
- 100%\* interest in Block 9 PSC (2,380km<sup>2</sup> or 588,000 acres) located onshore in Cuba
- 25 year term in total (awarded in 2015)
- 8.5 year exploration period divided into 4 sub periods with minimum work program:
  - 1 (Sept 2015 to Nov 2017) – studies and seismic reprocessing – largely completed
  - 2 (Nov 2017 to Nov 2019) – drill one well
  - Bank guarantee is required for 50% of approved firm budget for each sub-period.
  - The firm budget for 2nd sub-period anticipated to reflect the minimum work program of one well. Estimated cost of minimum program ~US\$5m
  - The bank guarantee is released once the minimum work program has been satisfied
- Targeting drilling up to two wells commencing mid 2018.
- Cuban civil engineering consultancy firm engaged and survey of well sites commenced
- Petro Australis provided notice of exercise of its back-in right for a 40% interest in Block 9 PSC
- Further Farmout process underway, with data room opened in Melbourne Office



\* Subject to Petro Australis receiving the necessary Cuban regulatory approvals (including pre-qualification) for its back in for 40% interest in Block 9.

# Cuba Block 9 – An Oil Rich Region

## Cuba Prospectivity and Market

- Represents under-explored south-eastern margin of the Gulf of Mexico - one of the world's great petroleum mega provinces
- Limited application of modern exploration techniques due to 50+ year US embargo
- Cuba currently producing ~45,000 barrels of oil and 3 million cubic metres of gas per day
- Strong focus on growing production
- ~50% of oil imported (mostly from Venezuela)

## Block 9 Prospectivity

- Lightly explored but contains natural oil seeps and has several small discoveries
- Along trend from Varadero oil field (>11 billion barrels oil-in-place)
- Potential for Varadero type structures in Block 9
- Adjacent to TSX-listed Sherritt International's producing area (~14,500 barrels per day at operating cost of ~US\$7/bbl in Q2 2017)\*



\*Sherritt International Corporation Second Quarter 2017 Report

# Cuba Block 9 – Resource Assessment

## Exploration potential for over 12 billion barrels of oil-in-place

- Exploration potential of over 12.5 billion barrels of oil-in-place and Prospective Resources of 637 million barrels (unrisked Best Estimate, 100% basis)
- 19 individual leads identified in conventional plays
- Depths between 2,000 and 4,000 metres
- High potential multi-target Alameda prospect identified close to historical oil recoveries
- Recoverable volumes conservatively estimated using the historical 5% recovery factor for nearby Cuban fields
- Higher quality light crude oil potential in Block 9 demonstrated by historical oil recoveries
- Ongoing assessment may add further potential
- Additional secondary objectives in Upper Sheet and Shallow Tertiary plays



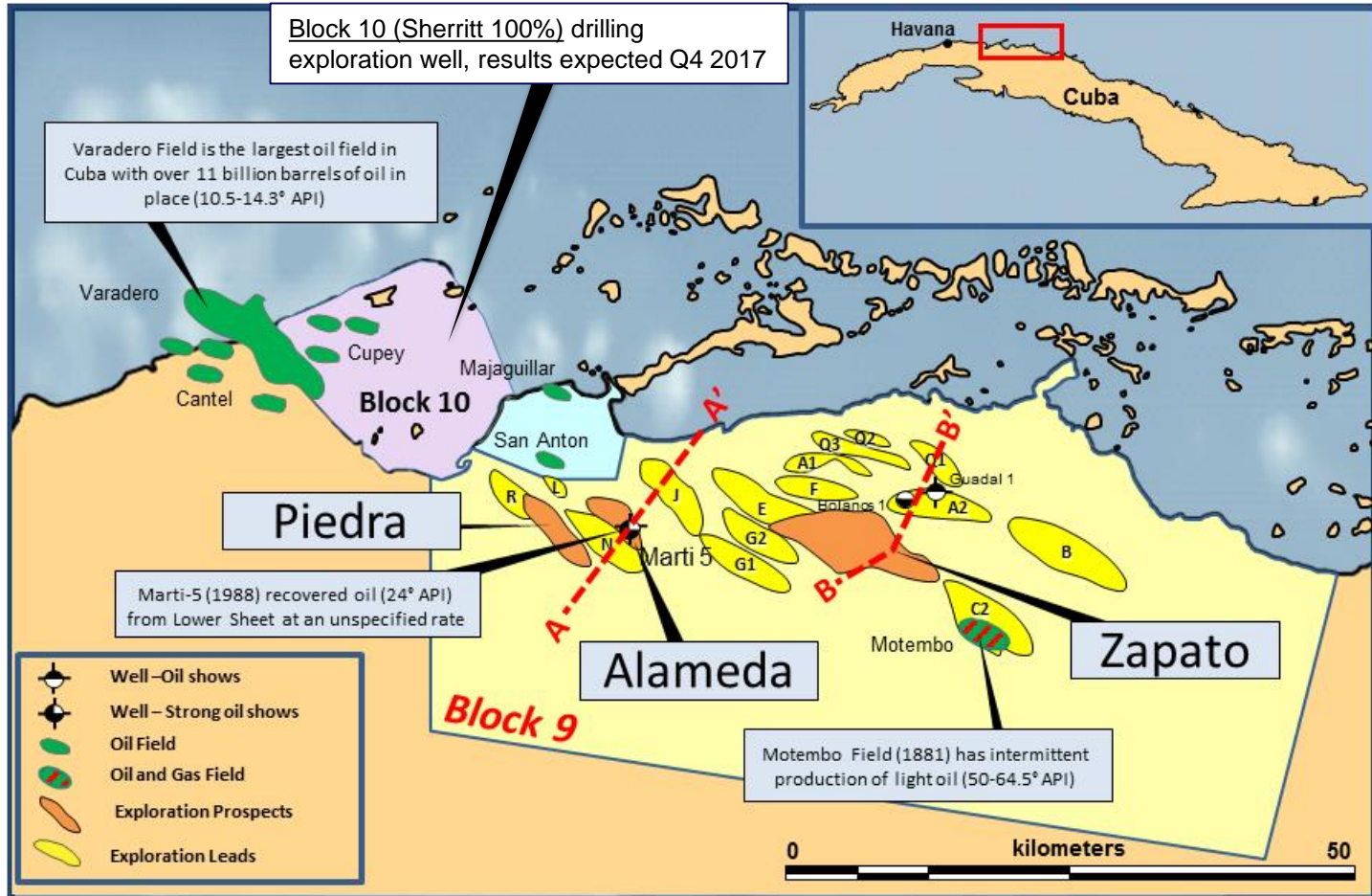
Block 9 Exploration Potential	Low	Best	High	Mean
	MMstb	MMstb	MMstb	MMstb
Oil-in-Place (unrisked, 100%)	1,181	12,746	44,151	18,518
Prospective Resources (recoverable, unrisked, 100%)	59	637	2,208	926

**Prospective Resources Cautionary Statement** - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate 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.



# Cuba Block 9 – 19 Leads in Conventional Play

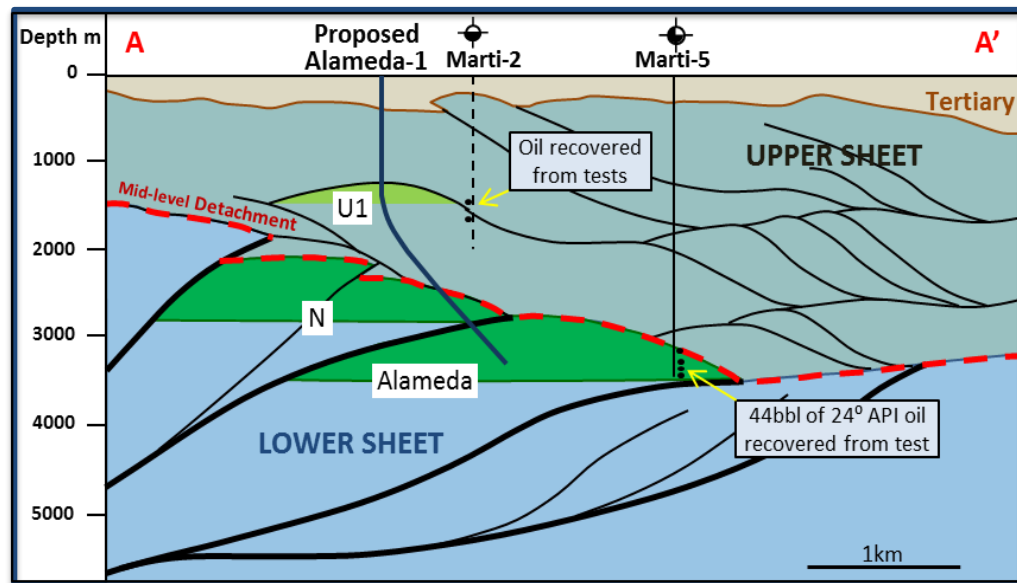
**Priority drill targets identified – Alameda, Zapato and Piedra**



# Cuba Block 9 – Alameda Prospect

## Multi-target exploration drilling opportunity close to historic oil recoveries

- Primary objective in depth range from 3,000 to 3,700 metres
- Marti-5 (drilled 1988) recovered lighter oil (24°API) and had oil shows over a 850 metre gross interval from the Alameda objective
- 32% chance of success at primary objective
- Two shallower secondary objectives
- Combined exploration potential of over 2.5 billion barrels oil-in-place and 130 million barrels of recoverable oil on an unrisksed, Best Estimate 100% basis
- Alameda-1 targeting up dip of known oil at two levels
- Currently designing well to test Alameda with potential for drilling in mid-2018
- Estimated 80 days to drill from commencement of drilling



### Alameda Recoverable Prospective Resources (100%, MMstb)

Objective	CoS*	Low	Best	High	Mean
U1	17%	2	25	93	38
N	22%	4	41	129	56
Alameda	32%	3	65	214	91

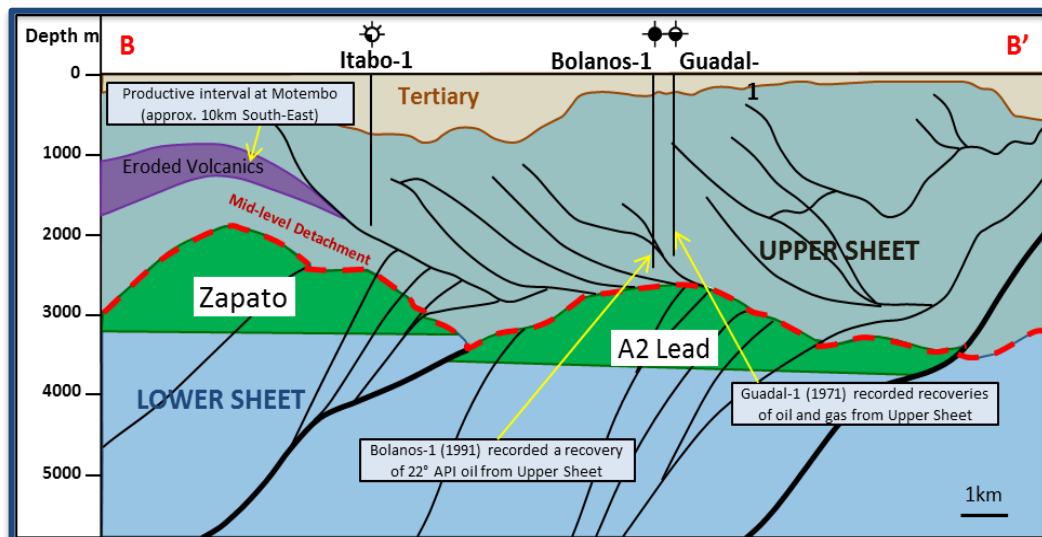
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\* Chance of Success

# Cuba Block 9 – High Potential Zapato Prospect

## Multiple structures with hundred million barrel exploration potential

- Zapato Prospect is a large structure targeting fractured carbonate objective
- Close to the shallower Motembo oil field which historically produced high quality light crude, demonstrating working oil system
- Crest of structure at approximately 2,000 metres with nearly 1,000 metres vertical relief
- Independent of Alameda-1 results
- Preliminary drilling design undertaken for potential early drilling in first half 2018
- A2 Lead is a large structure supported by two nearby shallow wells that recovered oil from the upper sheet above the deeper A2 lower sheet target



### Zapato & A2 Recoverable Prospective Resource (100%, MMstb)

	CoS*	Low	Best	High	Mean
Zapato	25%	5	71	297	118
A2 Lead	21%	9	69	213	93

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\* Chance of Success

# Cuba Block 9 – field work commenced

## ***Local contractors undertake initial site surveys of Alameda-1 well location***

- Cuba Block 9 PSC field work commenced
- Survey completed of Alameda-1 well site, camp site and access road
- Benign surface conditions encountered at well site locations
- Initiated field work with experienced local Cuban contractors
- Currently undertaking the engineering design for the surface facilities associated with the well
- Initiated permitting process, including environmental approvals required to begin exploration drilling targeted for mid-2018

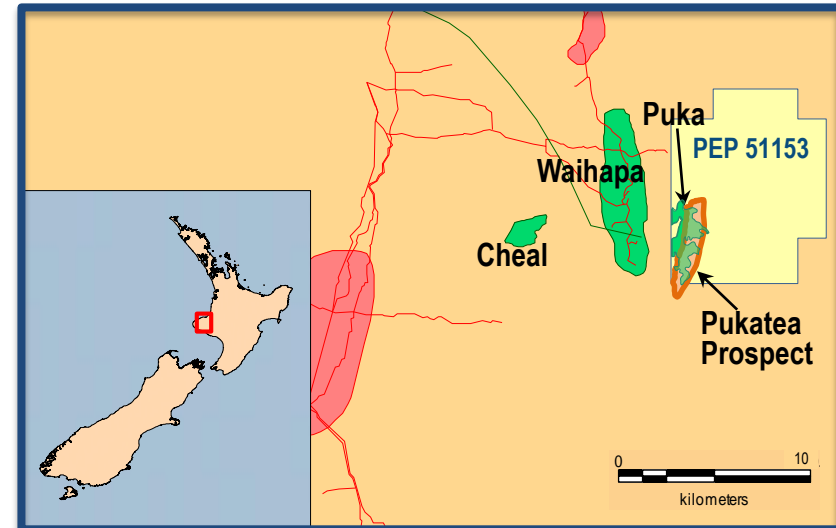




**New Zealand**

# Onshore New Zealand – PEP51153 Overview

- Melbana has 30% interest in PEP51153, operated by TAG Oil Ltd (“TAG” 70%)
- Located onshore in New Zealand <10km east of TAG’s producing Cheal field
- Independent expert values TAG’s 2P reserves in nearby fields at ~A\$20/barrel\* on NPV10 basis
- PEP51153 contains the high impact Pukatea prospect
- Prospective resources 12.4 (Best Estimate) to 40 million barrels (High Estimates, both 100% share)
- Close to existing infrastructure with multiple low cost alternative development paths for any discoveries
- NZ fiscal terms are some of the best in the world
- Robust natural gas market in the North Island of NZ
- Melbana is considering opportunities to reduce funding requirements while retaining exposure to the highly prospective Pukatea-1 well

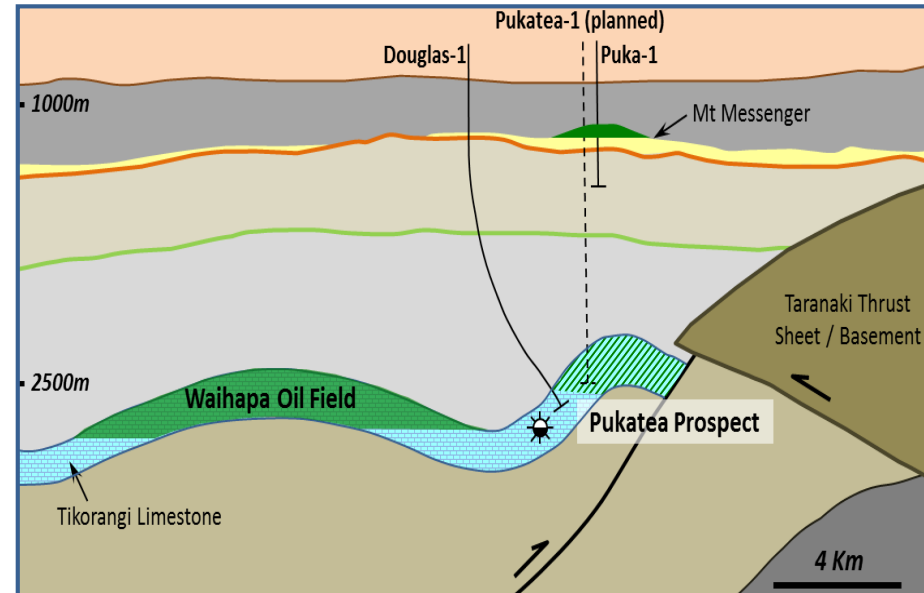


\* TAG Oil media release of 20 June 2017

# Onshore New Zealand – Pukatea-1 (Melbana 30%)

## High impact Pukatea oil prospect

- Prospective resources estimated to range from 1.3 to 40 million barrels (Low-High estimates, 100% share)
- Targeting a highly productive conventional reservoir in the Tikorangi Limestone directly below the Puka oil pool
- Production capability from the Tikorangi Limestone proven at the adjacent Waihapa oil field with individual initial rates up to 5,000 barrels/day and produced in excess of 23 MMstb of oil to date
- Good reservoir and oil shows demonstrated by 2012 Douglas-1 well drilled down-dip at the edge of the Pukatea prospect, with more than 350m of up-dip potential
- Melbana’s share of the dry hole cost of the well estimated at ~A\$2.4 million (excl. potential testing)
- Civil works completed and rig secured
- Exploration well currently required to be drilled prior to 23 February, 2018
- Operator advises that drilling anticipated to commence mid-January 2018.
- Anticipate ~30 days to reach objective



### Prospective Resources (MMboe, 100%)

	CoS*	Low	Best	Mean	High
Pukatea	19%	1.3	12.4	17.1	40

**Prospective Resources Cautionary Statement** - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate 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.

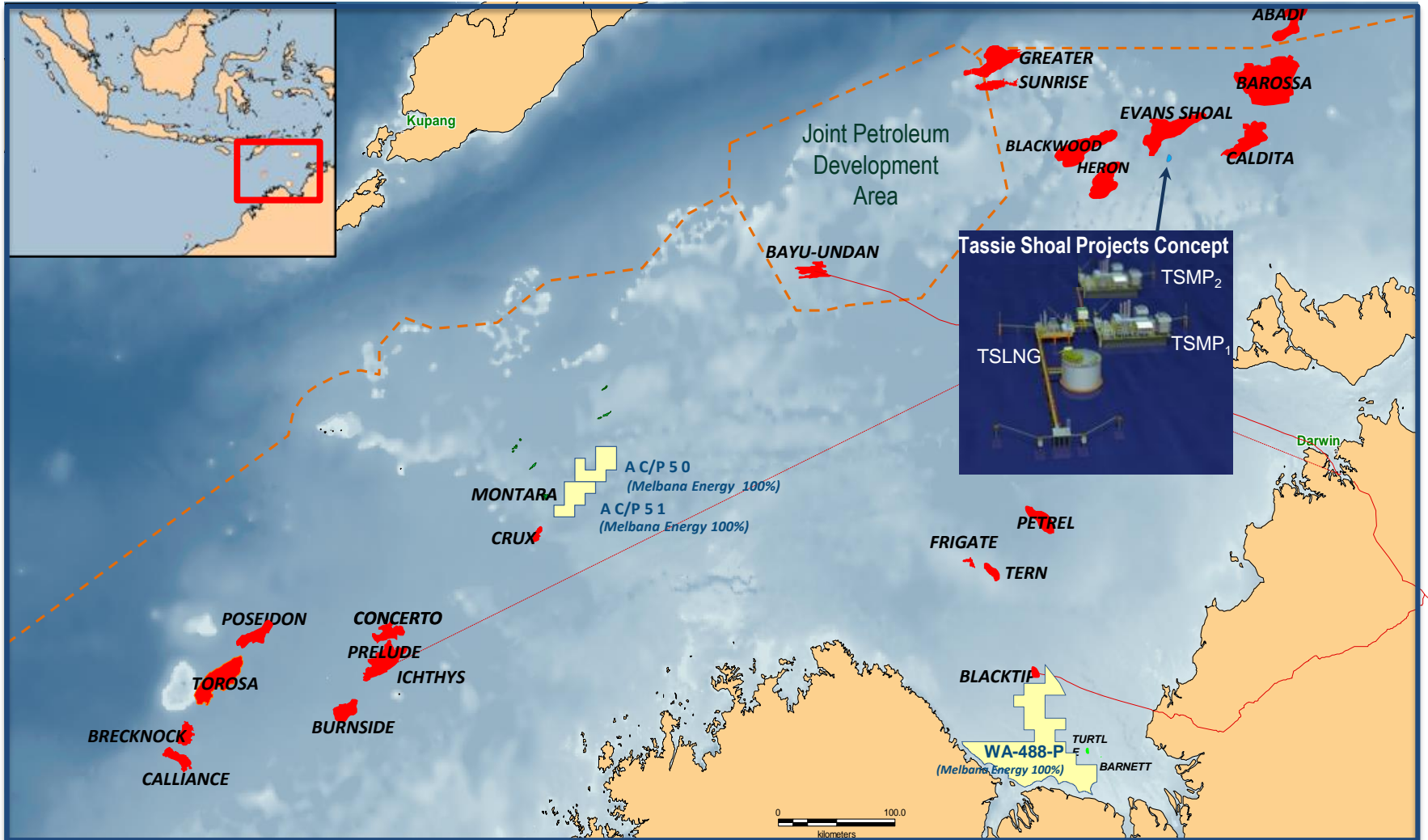
\* Chance of Success

## Other Assets



# Northern Australia Acreage and Projects

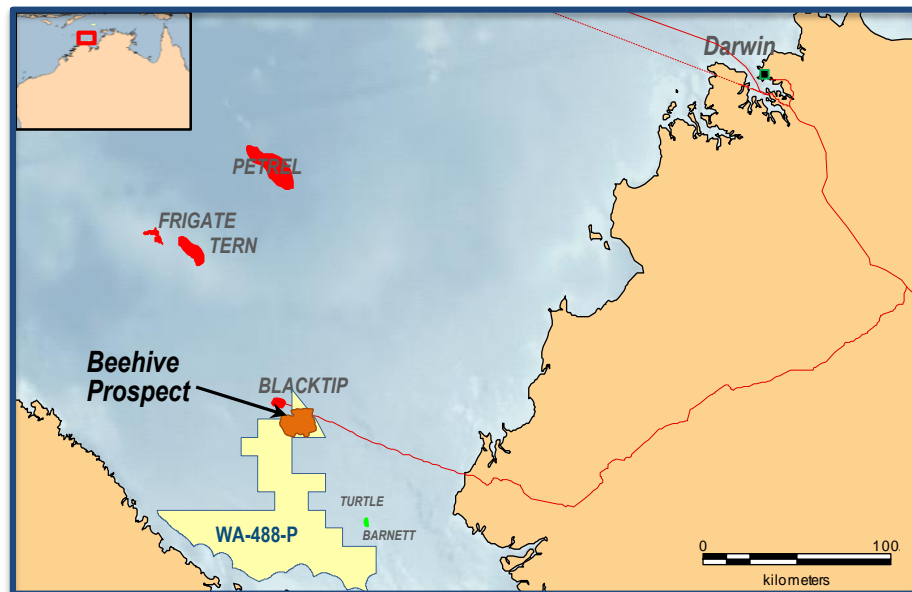
## Discrete upstream projects adjacent to proven hydrocarbons



# Australia – WA-488-P & the Beehive Prospect

## ***Beehive - One of the largest undrilled hydrocarbon structures in Australia***

- Beehive is a significant, multi billion barrel oil prospect located on WA-488-P
- Beehive Prospective Resources estimated to range from 97 to 2,033 million barrels (Low-High estimates)
- Potentially the largest undrilled oil prospect offshore Australia
- Shallow water, suitable for lower cost jack-up drilling rig
- Developable by FPSO or pipeline
- Recent 2D seismic broadband reprocessing and seismic inversion substantially enhanced characterisation of Beehive Prospect
- Now expanding 2D seismic reprocessing across rest of Beehive Prospect
- Farm down negotiations underway which, if successful, would result in one or more parties farming into WA-488-P to fund future field activities



### Prospective Resources (MMboe, 100%)

Beehive	CoS*	Low	Best	Mean	High
Carboniferous objective	16%	97	<b>558</b>	940	2033

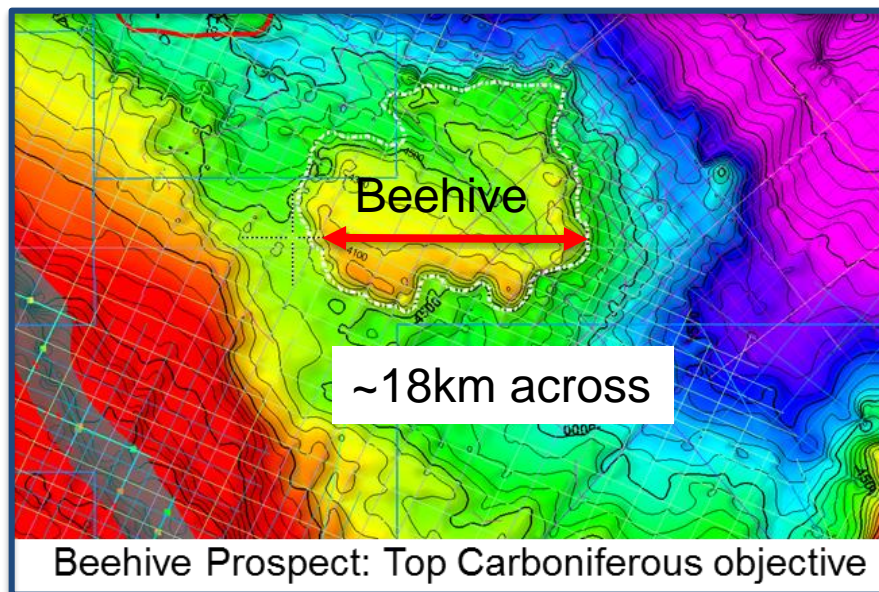
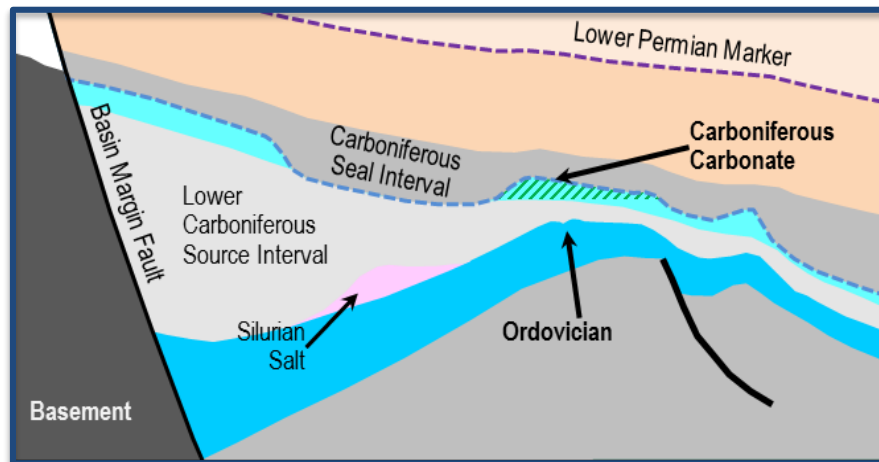
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\* Chance of Success

# Australia – Beehive Prospect

## *Beehive – a feature of enormous scale*

- Located in ~40 metres water depth
- Target depth 4,000 – 4,500m
- Prospect reservoir is an isolated carbonate platform of Carboniferous age.
- Enormous feature:
  - Carbonate platform is 18km across (approx. same as Melbourne CBD to Airport)
  - Mapped closure ~140km<sup>2</sup>
  - Vertical relief ~400 metres



# Investment Highlights

## Cuba

- ✓ Only ASX listed company with Cuban energy exposure
- ✓ Block 9 exploration potential increased 50% to >12 billion barrels of oil-in-place and Prospective Resources of >600 million barrels (unrisked Best Estimate, 100% share)\*
- ✓ Priority drill targets identified:
  - Alameda Prospect
  - Zapato and Piedra Prospects
- ✓ Targeting drilling of up to 2 wells commencing in mid 2018
- ✓ Petro Australis notice of back-in validates significant prospectivity of Block 9
- ✓ Further Farmout process commenced, data room open

## New Zealand

- ✓ High impact Pukatea-1 prospect expected to commence drilling mid-January 2018
- ✓ Pukatea has a Best Estimate Prospective Resource of 12.4 million boe\* (unrisked, 100% share)
- ✓ Melbana is considering opportunities to reduce its funding requirements while maintaining exposure to the highly prospective Pukatea-1 well

## Australia

- ✓ Beehive prospect located in WA-488-P is potentially the largest undrilled target in Australia
- ✓ Farm down negotiations underway which, if successful, would result in one or more parties farming into WA-488-P to fund future field activities

## *Multiple potential catalysts to support a significant re-rating*

### **CUBA BLOCK 9 PSC**

- Multiple high impact exploration drill targets identified
- Up to two wells to be drilled commencing mid 2018
- Drill program planning underway
- Potential farmout transaction

### **NEW ZEALAND PEP51153**

- Pukatea-1 drilling anticipated to commence mid-January 2018
- High leverage and near term production in success case
- Melbana is considering opportunities to reduce its funding requirements while maintaining exposure to the highly prospective Pukatea-1 well

### **AUSTRALIA WA-488-P**

- Possible completion of farmout
- If farmout successful, potential drilling of Beehive in late 2018/19

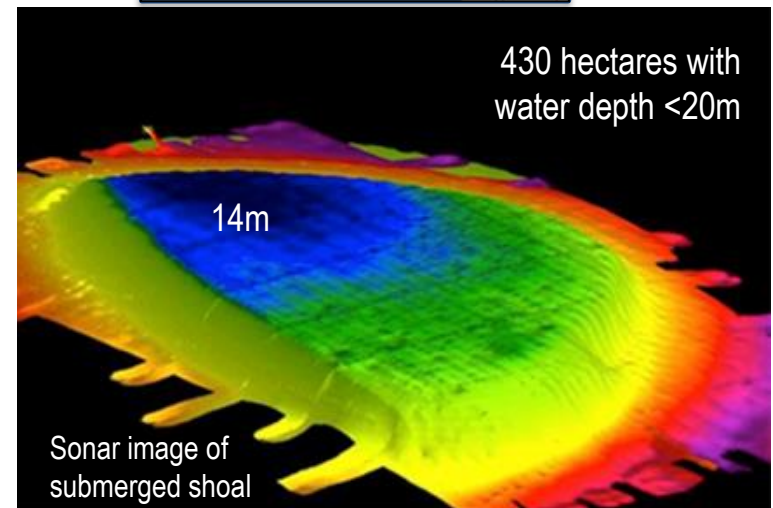
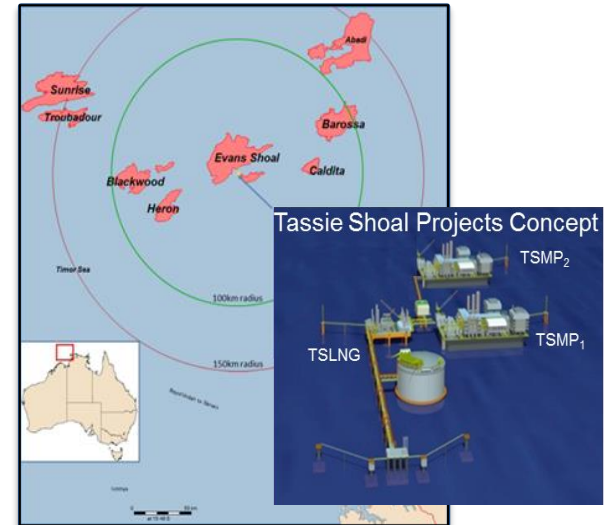


[www.melbana.com](http://www.melbana.com)

# Tassie Shoal Projects (Melbana 100%)

## *Shallow water, innovative low cost development paths for regional stranded gas*

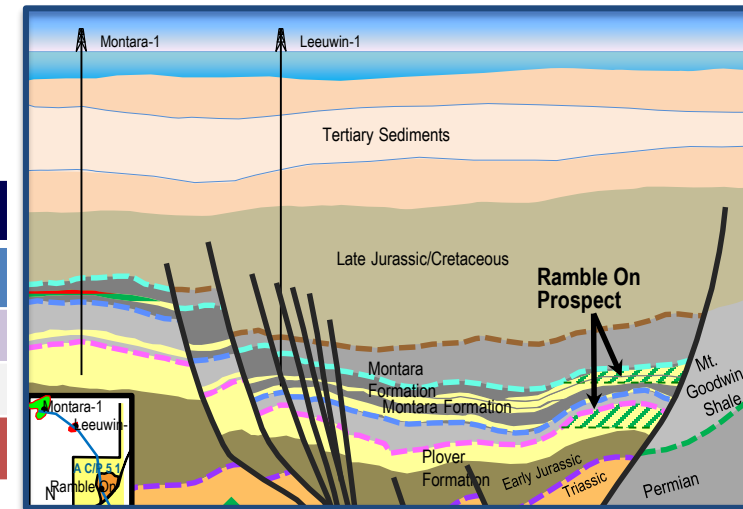
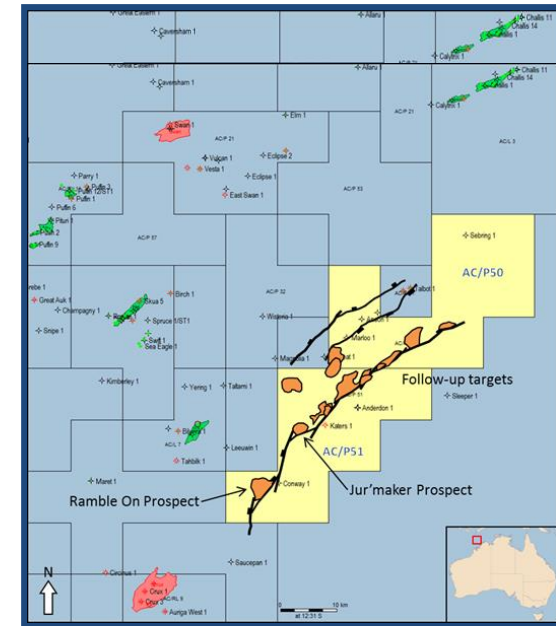
- Region has substantial undeveloped high CO<sub>2</sub> gas that needs a low cost development solution
- Methanol manufacturing uses gas with high CO<sub>2</sub> (up to 30%) as feedstock for value added product
- Offshore construction and installation of Tassie Shoal Methanol Plants (TSMP) and Tassie Shoal LNG (TSLNG) dramatically reduces capital costs compared to alternatives
- Melbana Energy has developed the concepts for constructing Methanol and LNG plants at Tassie Shoal
  - Long-dated Federal and State Government Environmental approvals (valid to 2052)
  - Undertaken pre-FEED engineering studies
  - Established relationships with key technology providers
- Low holding cost with significant potential value



# AC/P50 & AC/P51 (Melbana 55%\*): Multiple oil targets

## Melbana fully carried through 3D seismic reprocessing

- Identified material Ramble On and Jur'maker oil prospects in proven petroleum system defined on modern 3D seismic data
- Suitable for lower cost jack-up drilling rig
- Potential highlighted by Auriga West-1 well reported to find hydrocarbons in 2015 in similar play type
- 3D seismic reprocessing completed (Melbana free carried)
- Rouge Rock Pty Ltd exercised option to farm in for 45% interest in both permits (subject to regulatory approval)
- Near term activities:
  - Updating prospectivity on reprocessed seismic data
  - Seek to farm out late in 2017/18
  - Future drilling potential if farmout successful



### Prospective Resources (100%)\*\*

Ramble On	CoS	Low	Best	Mean	High
Oil Scenario (MMstb)	9%	8	39	56	130
Gas Scenario (Bscf)	2%	29	162	461	1,136
<b>Total (MMboe)</b>	<b>11%</b>	<b>8</b>	<b>38</b>	<b>63</b>	<b>150</b>

\* Subject to option by Far Cape Pte Ltd for a 5% carried participating interest in first well in either permit

\*\*See Prospective Resources Cautionary Statement on page 8