

# **Vintage Energy Pty Ltd**

## **Investor Presentation**

**November, 2017**

**Reg Nelson**  
Chairman

**Neil Gibbins**  
Managing Director

# Disclaimer

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# Overview of Vintage Energy Pty Ltd

- Registered 5 Nov. 2015
  - Pty Ltd company
- Established to:
  - Acquire , explore and develop energy assets principally within, but not limited to Australia
  - Take advantage of favourable energy pricing
    - Gas supply shortage in the eastern states
    - Oil prices rebounded (somewhat)
    - Favourable exchange rate
- One of Australia's most experienced technical teams
- Near term gas production potential
- High impact exploration with strong discovery potential
- Positive interest from institutional and retail investors
- Huge number of industry contacts





# Vintage Energy Team

- Strong relationships with Government and Government agencies
- Successfully guided companies in difficult & buoyant commodity price periods
- Deep knowledge of Australian basins
- Well respected
  - Industry, governments, financial community & investors
- Track records of innovation, success and growth
  - Opened up the Western Flank of the Cooper/Eromanga where previous players had departed (now largest Aust. onshore oil production area)

## Board

Reg Nelson (Chairman)

Neil Gibbins (Managing Director)

Nick Smart (Non-Executive)

Ian Howarth (Non-Executive)

## Associates and Advisors

Simon Gray (Company Secretary)

Ian Northcott

John Jackson



**Proven and highly respected team**

## 3 WAYS TO FAIL at everything in life:

1. Complain about everything
2. Blame others for your problems
3. Never be grateful

**AG** ANTHONY &  
GUCCIARDI

# A Crisis Foreshadowed

## **Security blueprint needed for Australia's energy supply grid: Beach Petroleum**

Energy News Bulletin, 17 June 2002

Mr Nelson said that one of the most important issues facing Australia during the first 20 years of this century was energy for electricity and transport fuels.

"If additional diversified energy sources are not found within this period, Australia will then have an energy crisis as a result of a rapidly emerging shortfall in liquid hydrocarbons and looming gas shortages, particularly in south eastern Australia...."

## **Beach Energy boss Reg Nelson tips natural gas prices to spike ... and stay high**

SMH, 27 November 2013, Angela Macdonald-Smith

"Reg Nelson has predicted a sustained spike in natural gas prices in the eastern states lasting as long as a decade due to the "supply crunch" affecting the market.....  
the "new gas pricing paradigm", where domestic gas prices in eastern Australia are increasingly linked to oil prices, and driven by LNG export volumes from Queensland."

## **The Australia Energy Market Operator's (AEMO) 2017 Gas Statement of Opportunities predicts an Australian East coast gas shortage in 2018 and 2019**

- “Based on the most recent information ..... gas supply remains tight in eastern and south-eastern Australia in 2018 and 2019, and there remains a risk of a supply shortfall,” said AEMO MD and CEO Audrey Zibelman.
- “..... the projected shortfall risk for 2018 is between 54 petajoules (PJ) to 107 PJ, and in 2019 between 48 PJ to 102 PJ (based on) ... total projected demand for domestic gas is expected to be approximately 642 PJ in 2018, and 598 PJ in 2019.”



# Newspaper headlines - Robert Gottliebsen

- **Energy crisis will be worse than expected, with costly blackouts coming** (March 20)
- **Mistakes caused the energy disaster — what other damage is being done?** (March 21)
- **Energy crisis risk is criminal** (March 22)
- **Renewable energy needs investment in back up, but who will pay?** (June 15)
- **True renewables cost is set to shock** (June 9)
- **The rules to solve the power crisis** (September 6)
- **Repairs needed to Australia's power system** (October 17)



The Hazelwood Power Plant. Picture: Rob Leeson.

## Recognising Australia's east coast gas crisis

Rod Sims, ACCC Chairman

5th Annual Australian Domestic Gas Outlook 2017 - 14 March 2017

- “At last year’s conference... I warned of... “an urgent need for both new and importantly more diverse sources of gas supply into the domestic market.  
**The outlook for gas supply is now even worse than it was a year ago; indeed, our worst fears are being realised.**
- “The gas spot price recently has been above \$10/GJ, some 150% higher than past prices, and some companies are apparently being offered gas at \$20/GJ, if they receive supply offers at all.
- “The gas supply outlook is now even more uncertain than 12 months ago.

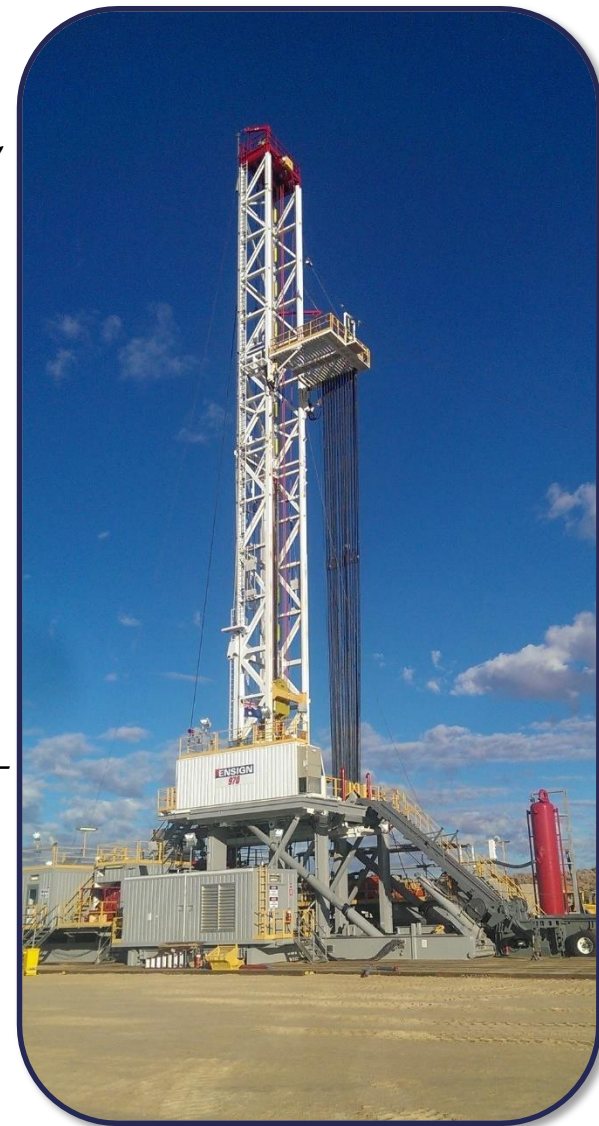
# Business Strategy

## Unique Circumstances

- Asset values fallen inline with global crude prices
- Companies still reducing costs and shedding equity in exploration, production and infrastructure assets
- Massive LNG industry in Queensland
- Anti-industry activism and politics (particularly in NSW, VIC, NT)
- Gas supply shortage in the Eastern States
- Instability of power generation capacity
- Stabilisation of crude prices
- Availability of Government grants (State and Federal)

## Opportunity to create substantial shareholder value

- Develop an integrated portfolio capable of generating value and growth
- Utilise industry/government networks to acquire assets at counter-cyclical prices
- Capable of making rapid, well informed and financially sound investment decisions
- Initial focus: gas exploration and development potential close to supply infrastructure for eastern Australian market
- Numerous assets under evaluation



# Operational Strategy

- Goal of raising sufficient capital for a 5 year period
- Minimum of four projects for a prospectus
- Targeting assets with early production/positive cashflow potential to underpin and provide capital for future growth
- Mix of projects on the Risk/Maturity vs Reward matrix; for example:
  - 1 production (low risk, lesser reward)
  - 1 appraisal (mid risk, mid reward)
  - 2 exploration (high risk, greater reward)
- Ideally wells in each of Year-1 and Year-2
- Commensurate capital raised if a good production asset can be acquired
- Capital constraints:
  - Exploration &/or appraisal projects limited to ~ 10% of capital (+/- 5%)
- Where high risk/high reward, seek greater prospective area to enable follow up
- Evaluation focus on technical, commercial and partnering outcomes
- Focussed and disciplined – quality not quantity.







# Projects



# Portfolio Build - Status

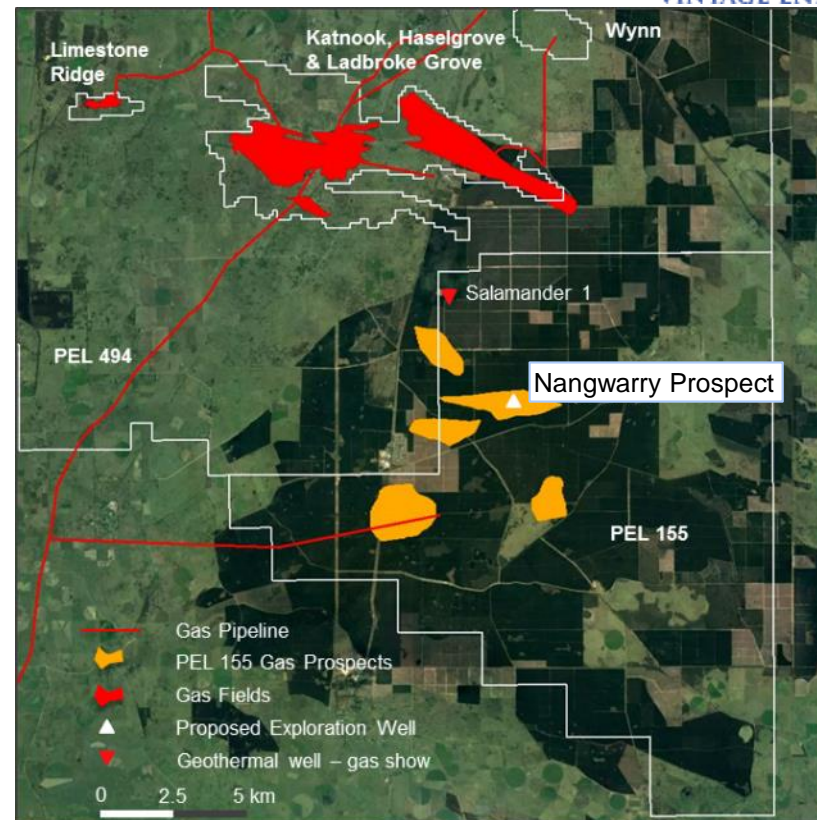
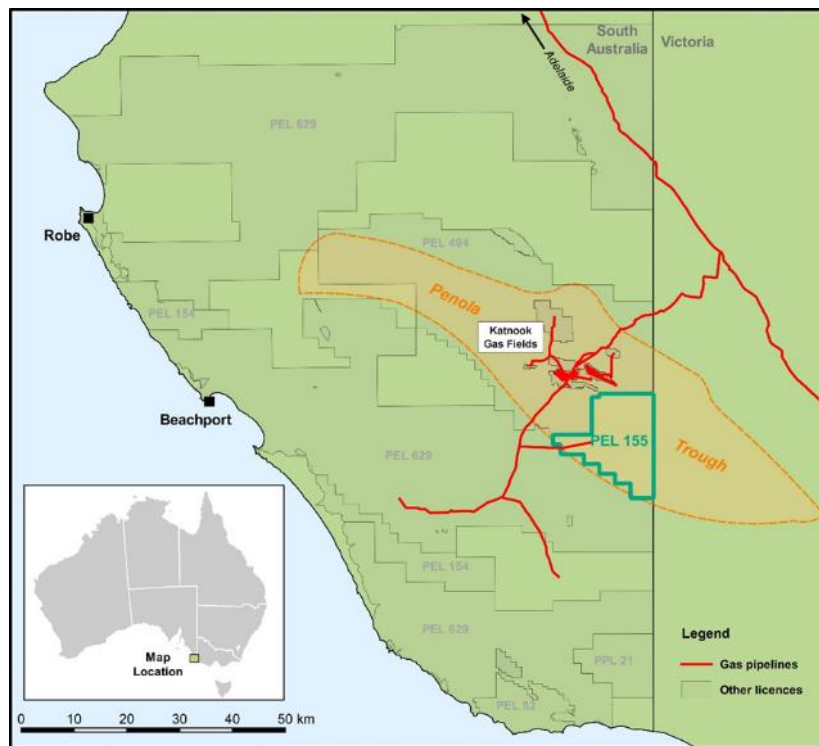
- PEL 155, Otway Basin
  - 25% equity acquired
  - PACE Gas Grant application submitted
  - Additional 25% equity, subject to successful PACE application
  - Nangwarry-1 Prospective Resource\*
    - 33 Bcf** (Gross P50 recoverable)
    - 16.5 Bcf** (50% equity P50 recoverable)
- ATPs 743, 744, 1015, Galilee Basin
  - Farm-in Agreement signed
  - ~2:1 work program promote to acquire 30% interest in conventional play strata
  - Can acquire up to 48% by increasing promote
  - Subject to capital raise
  - Contingent Resource<sup>+</sup> booked:
    - 2C = 153 PJ, 3C = 417 PJ (Gross)**
    - 2C = 46 PJ, 3C = 125 PJ (30% equity)**
- 2 opportunities under negotiation and others under review



\*In accordance with SPE-PMRS guidelines  
<sup>+</sup>Independently certified

# PEL 155, Otway Basin

- Vintage acquired 25% equity via \$100,000 payment to Otway Energy (subsidiary of Rawson Oil & Gas).
- Joint Venture: Otway Energy 75%, Vintage 25%
- PACE Gas Grant application submitted (seeking 50% of drilling and evaluation costs for 1 well)
  - Successful applicants announced prior to end 2017
- Vintage earn further 25% if PACE Grant awarded and share remaining costs 50:50 with Otway Energy

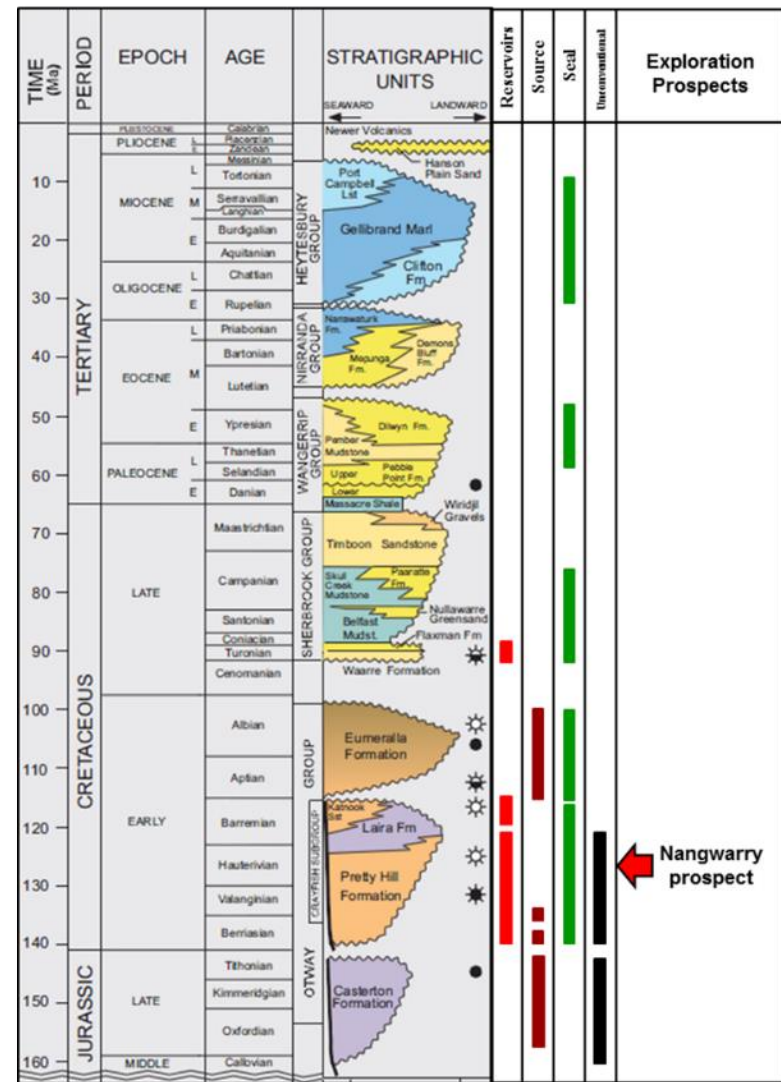


- Located east of and on trend with Otway Basin, Penola Trough fields.
- Katnook Gas Plant 10 km the north-west
- Region connected to the SEAGas pipeline via SESA and SEPS pipeline network
- Predominantly forestry plantation region

**Close to infrastructure and connection to Eastern Australian pipeline network**

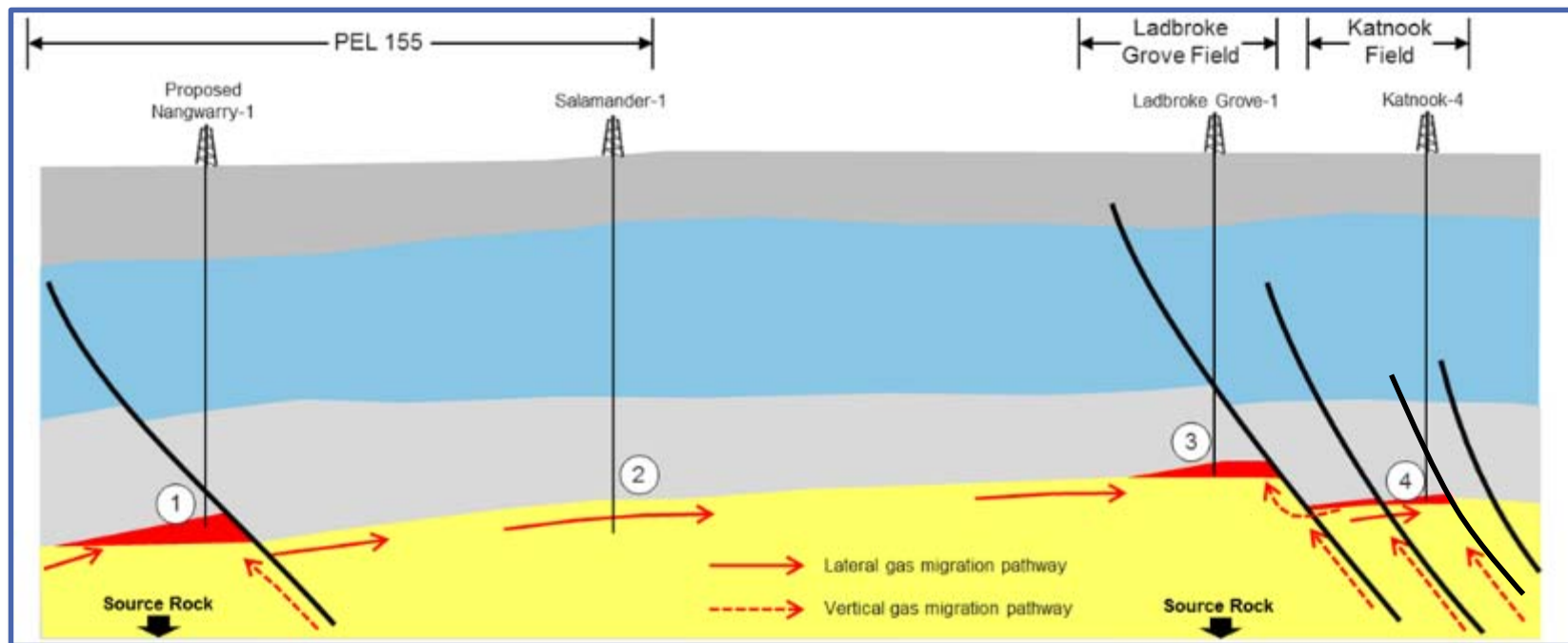
# Penola Trough, Otway Basin - Background

- Exploration began 1866
- Modern day exploration began in 1961
  - Over 80 wells drilled
  - 13,500 km of 2D & 710 km<sup>2</sup> of 3D seismic
  - Katnook Gas Plant commissioned in 1991
  - Over 70 Bcf gas and 0.4 MMbbls condensate produced
  - Fields shut-in, plant mothballed
- Commercially proven Early Cretaceous Katnook/Pretty Hill Sandstone petroleum system
- Trap style 3-way dip, fault sealed closures
  - Stacked fluvial sandstones with up to 25% porosity
  - Flow rates up to 16 MMscfd
  - Seal considered the major risk
- Sawpit Sandstone (within the Pretty Hill) considered strong but unproven target to be tested by Beach at Haselgrove Deep (Nov. 2017)
- Lower Sawpit Shale (within the Pretty Hill) and Casterton Beds considered unconventional targets



# PEL 155, Nangwarry Prospect – Play Concept

- Exploration well to test gas & condensate potential of an un-drilled prospect in the Penola Trough
- Hydrocarbon migration from source rocks deep in the Penola Trough
- 3-way dip, fault sealed closure analogous to Ladbroke Grove & Katnook fields
- Covered by Nangwarry 3D seismic acquired in 2008 – major risk is fault seal
- Charge considered low risk. Gas recovered from Salamander-1 (Geothermal well, 4km NW) is low in CO<sub>2</sub> (89% methane, 4.75% Ethane, 2.5% Propane, 1% CO<sub>2</sub>)



Proven play concept



# PEL 155, Nangwarry Prospect

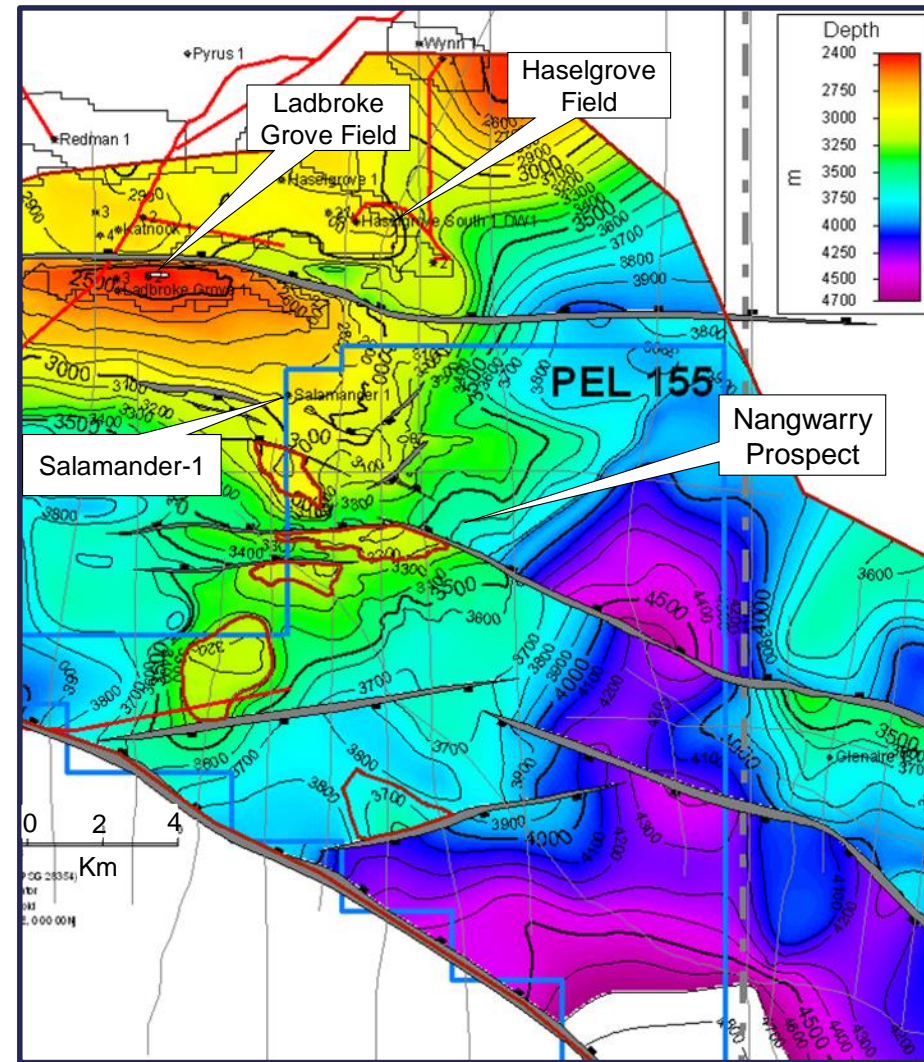
## Prospect Summary

- **Primary Target** : Top Pretty Hill Fm
- **Target Depth** : 3200m
- **Closure** : 2.4km<sup>2</sup>
- **Pros. Resource\*** : 33 Bcf (P50 recoverable)
- **Reservoir Porosity** : 14-20% (P90-P10)
- **Recovery Factor** : 45-59% (P90-P10)
- **Primary Uncertainty** : Fault seal
  - Probability of Charge : 0.88
  - Probability of Trap : 0.75
  - Probability of Reservoir : 0.69
  - Probability of Seal : 0.50
- **Timing** : late 2018 drilling season
- **Well Cost** : \$11.5million  
(Incl. mob/demob from Cooper Basin)

## Land Use

- ForestrySA (SA Govt) owns the forest plantation surrounding the proposed Nangwarry-1 well site.
- OneFortyOne manages the harvesting/ planting.

\* In accordance with SPE-PMRS<sup>2</sup>) guidelines (see glossary)





# Galilee Basin: ATPs 743, 744, 1015

- Comet Ridge 100% and operator
- Vintage to earn 30% interest (up to 48%) in strata below shallow coals
- Subject to Vintage finance, JOA and Co-ordination Agreement
- Vintage pay ~ \$8.5 million to earn 30%
- Independently certified conventional gas Contingent Resource Booking

Conventional Gas Contingent Resource * (PJ)			
Equity	1C	2C	3C
100%	56	153	417
30%	17	46	125

\*COI ASX announcement 5 August 2015, ATP 744, independent resource certification, Carmichael Structure.

- Vintage to earn its proportional share of Contingent Resource
- Proposed Adani coal mine 30-40km east of Comet Ridge tenements



# Galilee Basin: ATPs 743, 744, 1015

- Large, cattle grazing area, central western Queensland
- ~100 petroleum wells (intersecting Galilee sequence) over 70 years
- Targeted Late Carboniferous to Permian sandstones to depths of ~3000m
- 3 historic petroleum wells within ATP 743 and ATP 744
  - All demonstrated moveable hydrocarbons
  - Recovered gas and/or oil from Lake Galilee Sandstone at base of Galilee Basin section
  - Koburra-1, Carmichael-1 and Lake Galilee-1 flowed gas to surface at low rates
  - Oil recovered on DST from Lake Galilee-1
  - Only Carmichael structure clearly defined by seismic
- Wells designed to evaluate oil, not gas (high mud overbalance / not tested immediately on penetration etc.)



# Albany Structure

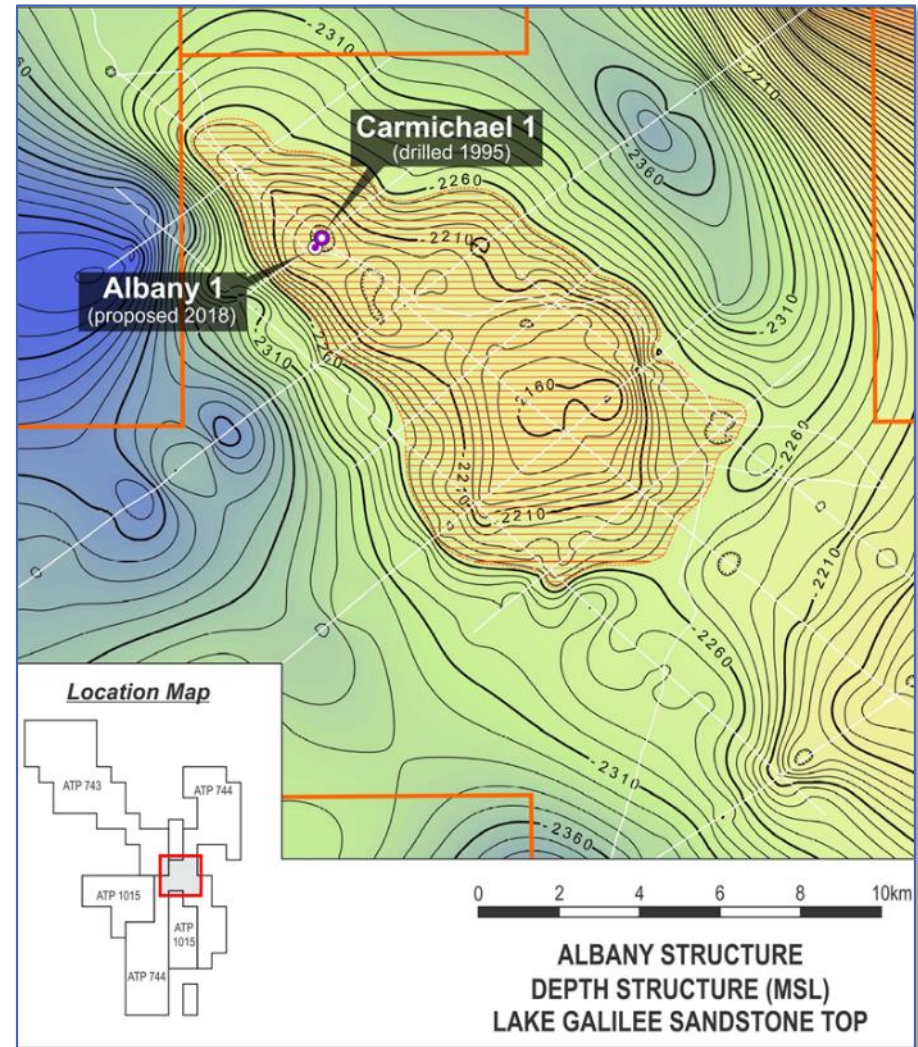
## Carmichael-1 (Maple Oil & Expln, 1995)

- Tested robust anticline
- Defined by 1980's 2D seismic grid (2.5x 2.5km)
- Late Carboniferous Lake Galilee Sandstone
  - 150m gross sandstone with >30m net pay
- Gas flow to surface despite 500-600psi overbalanced mud system
- Large gas discovery

## Albany (Carmichael) Structure

- Closure 60-80 km<sup>2</sup>
- Contingent Resource booked:
 

**2C = 153 PJ, 3C = 417 PJ**
- Low permeability, gas saturated reservoir
- Low inerts (<5%)
- Target to be drilled with nitrogen
- Fraccking may enhance flow rate further
- Drilling early 2018 (2800m TD)
  - Albany-1 (Carmichael-1 twin)

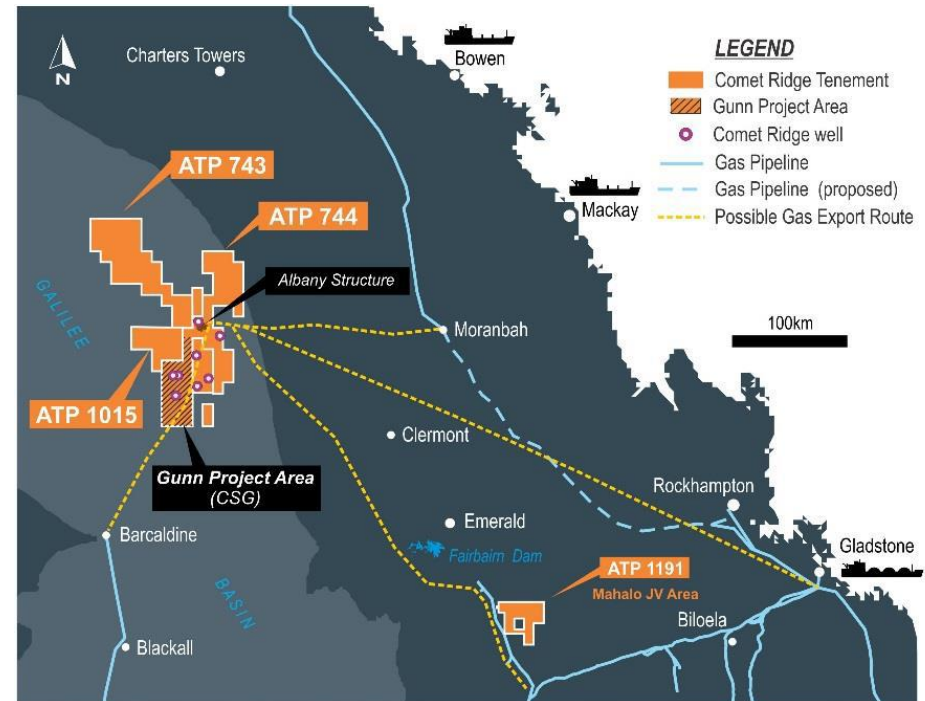




# Koburra Trough – Potential

## Koburra Trough

- Largely unexplored over a wide area
- Working petroleum system
- Appraise Carmichael-1 discovery
- Robust full cycle economics
- Plans for exploration follow-up
  - More seismic required
  - Potential for additional structures with large gas condensate accumulations
- Comet Ridge like minded and experienced Operator
- Good landholder relations
- Indicative forward plan
  - 2 wells, 2D and 3D seismic
- Short time required to appraise and develop



## Market Opportunities

- Power for coal mines
  - Proposed Adani coal mine 30km east of permits (already require significant energy/power)
- Industrial gas supply
- Comet Ridge pipeline MOU with APA
- LNG project shortfalls

# ATPs 743, 744, 1015 -Deal Structure

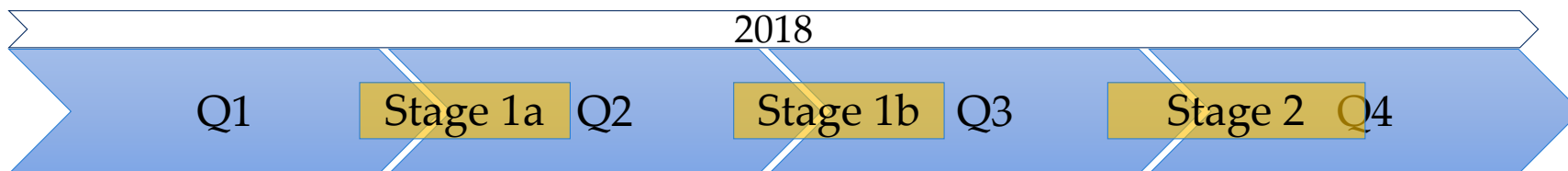
- Interest earned in strata below shallow coals of Betts Creek Beds and Aramac Coals
- Shallow CSG development excluded
- Conventional gas target at ~ 2800m
  - Lake Galilee Sandstone
- ~2:1 work program promote to earn 30%
- Can acquire up to 48% by increasing promote
  - Subject to Comet Ridge funding decisions
- Promote is front ended
- Staged conventional gas work program
  - Up to \$15million (gross)
  - Vintage pay ~ \$8.5 million
- Exit points available to Vintage

BASIN	AGE	GROUP	FORMATION
GALILEE BASIN	Triassic	Joe Joe Group	Moolayember Formation
			Clematis Sandstone
			Rewan Formation
	Permian		Betts Creek Beds
			Aramac Coal Measures
	Early Permian to Late Carboniferous		Jochmus Formation
			Jericho Formation
		Lake Galilee Sandstone	
DRUMMOND BASIN	Early Carboniferous	Cycle 3	Natal Formation
			Bulliwallah Formation
			Star of Hope Formation
		Cycle 2	Raymond Formation
			Mount Hall Formation
	Scartwater Formation		
	Late Devonian	Cycle 1	St Annes Formation
			Basal Volcanics / Marine Sediments
	Early to Middle Devonian	Ukalunda Beds and equivalents – ? Belyando Basin?	
	Basement	Proterozoic	Thompson Orogeny Metasediments





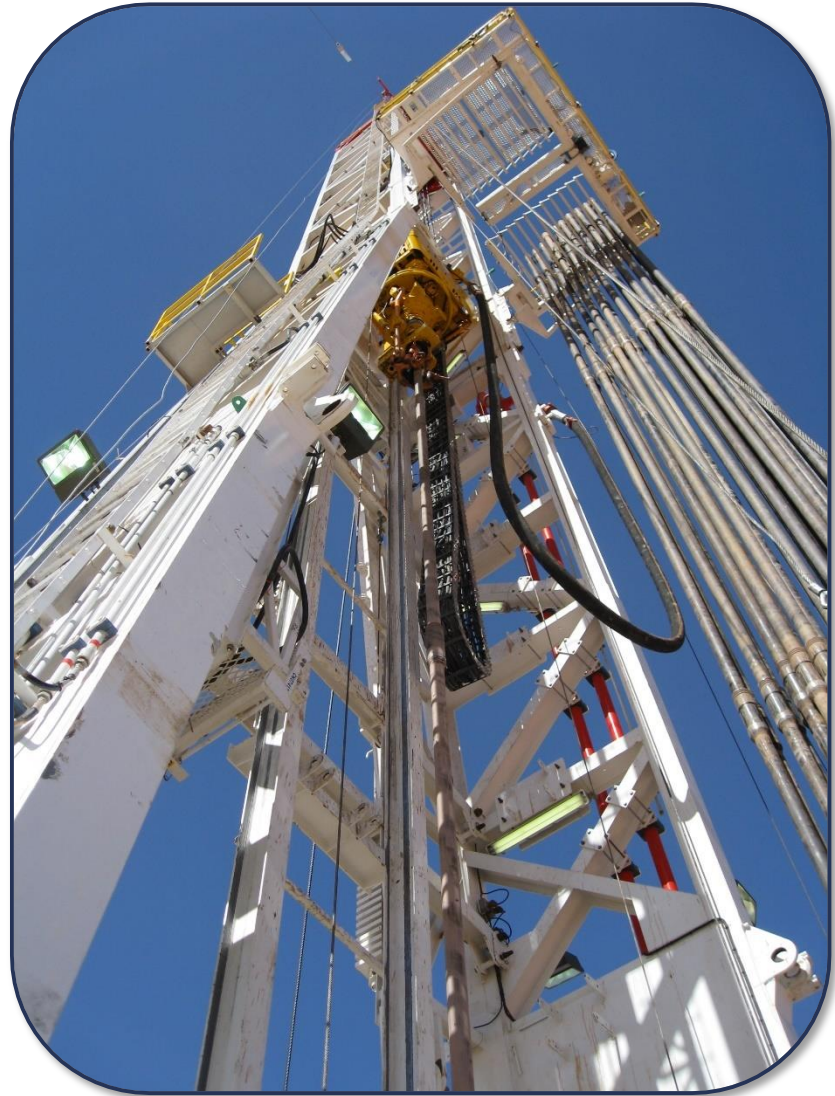
# ATPs 743, 744, 1015 – Planned Work Program



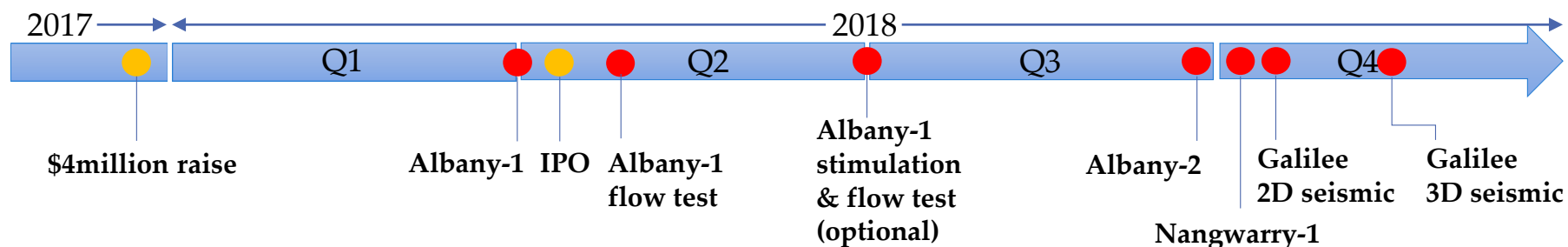
Stage	Description	~ Gross Cost (\$million)	~ Net Cost (\$million)
1a	Drill Albany-1 with nitrogen, flow test	3.8	3.4
1b (optional)	Stimulate and flow test	1.2	0.3
2	Drill Albany-2, stimulate (?) flow test	10.0	5.0
	2D Seismic		
	3D Seismic		
Total		13.8 -15.0	8.4 – 8.7

# Further Assets to come

- 2 under negotiation
- Others under review
- Focus on central/eastern Australian onshore basins
- **STAY TUNED**



# Indicative News Flow



- Strong news flow post IPO
- Drilling, flow tests, well stimulation, 2D & 3D seismic
- Important results throughout 2018
- Success at PEL 155 and/or Galilee project will provide early commercialisation options
  - Numerous customers likely eager for sales agreements (local & Eastern Australian market)
  - Adani coal mine, Ladbroke Grove, Pelican Point, Osbourne Power Stations, Safries, Kimberly Clark, etc
  - LNG project shortfalls

# Forward Plan

- Moving to public company status from Pty Ltd in December
- In parallel
  - **Raise \$4+million (net of costs) Q4 2017** to complete Comet Ridge deal and commence work programs
  - **Prepare for IPO March/April 2018** (subject to appropriate market conditions)
- Disciplined approach in evaluating opportunities
  - Several under evaluation and/or negotiation
  - rejected quite a number
- Aim to secure revenue and production as soon as practicable
- Team has good track records on acquisitions



# Glossary

<b>AUD or \$</b>	Australian dollars
<b>1C</b>	Contingent resource low estimate <sup>(1)</sup>
<b>2C</b>	Contingent resource best estimate <sup>(1)</sup>
<b>3C</b>	Contingent resource high estimate <sup>(1)</sup>
<b>2D</b>	Two dimensional
<b>3D</b>	Three dimensional
<b>1P</b>	Proved reserve estimate <sup>(1)</sup>
<b>2P</b>	Proved and probable reserve estimate <sup>(1)</sup>
<b>3P</b>	Proved, probable and possible reserve estimate <sup>(1)</sup>
<b>APA</b>	APA Group Ltd
<b>ATP</b>	Authority to Prospect (QLD)
<b>Beach</b>	Beach Energy Limited
<b>bbl</b>	barrels
<b>Bcf</b>	Billion cubic feet
<b>CSG</b>	Coal Seam Gas
<b>FY</b>	Financial Year
<b>GJ</b>	Gigajoule, 1 GJ is equivalent to 1,000 joules
<b>IPO</b>	Initial Public Offering
<b>IRR</b>	Internal Rate of Return
<b>Km<sup>2</sup></b>	Square kilometres
<b>Km</b>	Kilometre
<b>LNG</b>	Liquefied Natural Gas
<b>MMbbl</b>	Million barrels
<b>MMscfd</b>	Million standard cubic feet per day
<b>MOU</b>	Memorandum of Understanding
<b>MW</b>	Megawatts
<b>NPV</b>	Net Present Value
<b>P10/P50/P90</b>	See footnote <sup>(3)</sup>
<b>PACE</b>	South Australian Plan for Accelerating Exploration gas grant scheme
<b>PEL</b>	Petroleum Exploration Licence (SA)
<b>PJ</b>	Petajoule (1 PJ is equivalent to 1x10 <sup>6</sup> GJ)
<b>SPE-PRMS</b>	See footnote <sup>(2)</sup>
<b>TD</b>	Total Depth
<b>TJ</b>	Terajoules, 1 TJ is equivalent to 1x10 <sup>3</sup> GJ)
<b>USD</b>	US dollars
<b>Vintage</b>	Vintage Energy Pty Ltd

<sup>(1)</sup> Refer to “*Guidelines for Application of the Petroleum Resources Management System*” November 2011 (SPE PRMS) for complete definitions of Reserves and Contingent Resources.

<sup>(2)</sup> Petroleum Resources Management System document, including its Appendix Sponsored by: Society of Petroleum Engineers (SPE) American Association of Petroleum Geologists (AAPG) World Petroleum Council (WPC) Society of Petroleum Evaluation Engineers (SPEE)

<sup>(3)</sup> The [Securities and Exchange Commission](#) (SEC) define the reserves and resources estimates in terms of P90/P50/P10 ranges as: “The range of uncertainty of the recoverable and/or potentially recoverable volumes may be represented by either deterministic scenarios or by a probability distribution.

When the range of uncertainty is represented by a probability distribution, a low, best, and high estimate shall be provided such that:

- There should be at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the low estimate.
- There should be at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate.
- There should be at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the high estimate.





VINTAGE ENERGY

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November, 2017

**For Information**

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Photos courtesy of Ensign Drilling and Terrex Seismic  
(except gas flare)