



# **Proactive Investors Luncheon Presentation**

12-13 April 2016

#### **Disclaimer & Important Notice**



- This presentation does not constitute investment advice. Neither this presentation not the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in Elk Petroleum Ltd ABN (the "Company") in any jurisdiction.
- Shareholders should not rely on this presentation. This presentation does not take into account any person's particular investment objectives, financial resources or other relevant circumstances and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.
- The information set out in this presentation does not purport to be all inclusive or to contain all the information which its recipients may require in order to make an informed assessment of the Company. You should conduct your own investigations and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation.
- To the fullest extent permitted by law, the Company does not make any representation or warranty, express or implied, as to the accuracy or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of the negligence or otherwise is accepted.
- This presentation may include forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of the Company. These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions in various countries and regions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay or advancement, approvals and cost estimates.
- Actual values, results or events may be materially different to those expressed or implied in this presentation. Any forward looking statements in this presentation speak only at the date of issue of this presentation. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company does not undertake any obligation to update or revise any information or any of the forward looking statements in this presentation or an changes in events, conditions or circumstances on which any such forward looking statement is based.
- The reserves and resources assessment follows the guidelines set forth by the Society of Petroleum Engineers Petroleum Resource Management System (SPE-PRMS).
- The Reserves and Contingent Resources in this announcement relating to the Grieve CO<sub>2</sub> EOR project, operated by Denbury Resources, is based on an independent review and audit conducted by Pressler Petroleum Consultants, Inc. and fairly represents the information and supporting documentation reviewed. The review and audit was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr. Grant Olsen, a Director of Pressler Petroleum Consultants, Inc., an independent petroleum advisory firm. Mr. Olsen is a Registered Professional Engineer in the State of Texas and his qualifications include a Bachelor of Science and Master of Science (both in Petroleum Engineering) from Texas A&M University. He has more than 10 years of relevant experience. Mr. Olsen is a member of the Society of Petroleum Engineers (SPE) and an Associate Member of the Society of Petroleum Evaluation Engineers. Mr. Olsen meets the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules and consents to the inclusion of this information in this report.
- The information in this presentation that relates to Reserve and Contingent Resources estimates for the Grieve CO2 EOR project and the Contingent Resource estimates for the Singleton CO2 EOR project have been compiled or in the case of the Singleton CO2 EOR project prepared by Mr. Brian Dolan, COO and VP-Engineering of Elk Petroleum USA who is a qualified person as defined under the ASX Listing Rule 5.11 and has consented to the use of the reserves figures in the form and context in which they appear in this presentation. Mr. Dolan is a full-time employee of the company. Mr. Dolan earned a degree in Mechanical Engineering from the University of Colorado at Boulder and has more than 23 years of relevant experience. Mr. Dolan has sufficient experience that is relevant to the company's Reserves and Resources to qualify as a Reserves and Resources Evaluator as defined in the ASX Listing Rules. Mr. Dolan consents to the inclusion in this presentation of the matters based on the information in the form and context in which it appears

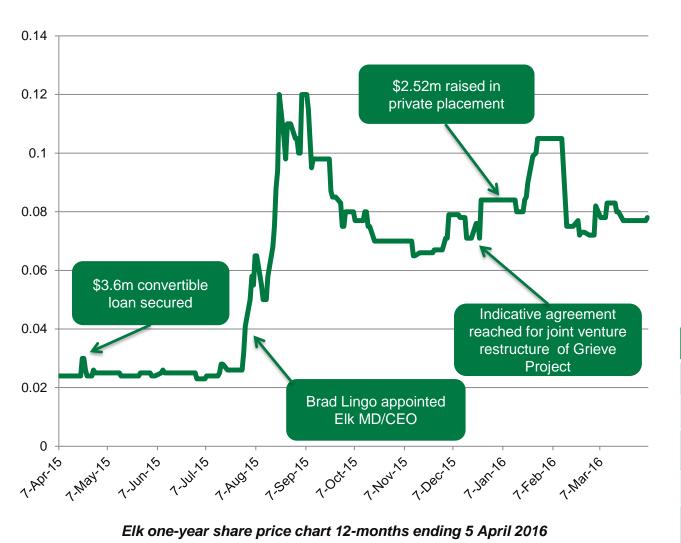
#### **The Investment Case**



EOR Expertise	<ul> <li>Extensive experience and expertise in Enhanced Oil Recovery (EOR)</li> </ul>
Existing Assets	<ul> <li>Existing US assets provide strong foundation for cash flow and growth</li> </ul>
Core Area EOR Opportunities	Significant further EOR project growth potential in core areas
Oil Price	<ul> <li>Current oil price environment presents unique opportunity for low cost EOR project accumulation</li> </ul>
Global EOR Opportunities	Significant opportunity to apply EOR in largely untapped areas outside of the USA
Strong Leadership	<ul> <li>Elk Petroleum has strong leadership with proven track record of value creation</li> </ul>
Near-term Transformation	<ul> <li>Strong news flow pipeline to first oil across several projects - targeted for CY2017</li> </ul>

#### **Elk performance snapshot**





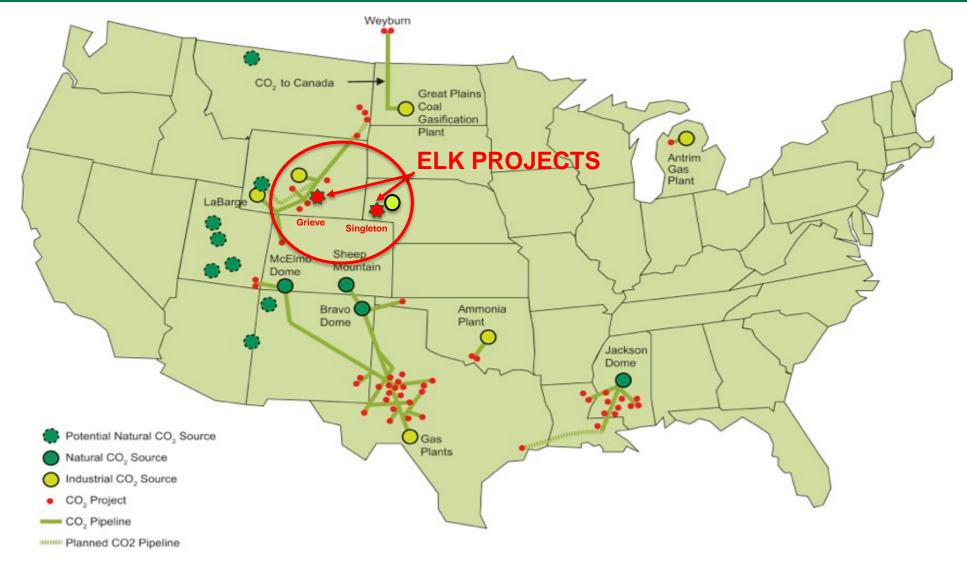
Capital Structure				
ASX code	ELK			
Ordinary Shares / Fully Diluted	262.8m / 369.9m			
52-week Low-High (A\$ cps)	0.02-0.13			
Market cap @ 7.5cps (fully diluted)	A\$27.7m			
Cash (11 April 2018)	~A\$2m			
Reserves + Resources (2P+2C)*	~9.3 mmbls			

Reserves and Resources as set out in the Company's Quarterly Activities Report ASX Announcement of 29 January 2016.

Major shareholders				
Robert Healy	25.23%			
Begley Superannuation	11.52%			
Republic Investment Management Pte. Ltd	10.89%			
HSBC (Including Republic Investment Management)	9.9%			
Board & Management	7.0%			

## Where do we operate - Our Core US assets





#### Managing Director & Chief Executive



#### **Brad Lingo**

- Appointed 1 August 2015
- Former MD & CEO of Drillsearch Energy
  - 15-fold increase in market valuation / 8-fold increase in share price
  - Became Australia's 3rd largest onshore oil producer
  - Finance successfully raised ~A\$450m in equity and debt
  - Delivered 29 new conventional discoveries
  - Drilled 98 wells over 6-years with 73% success rate
  - Oversaw the production commencement of 12 new fields

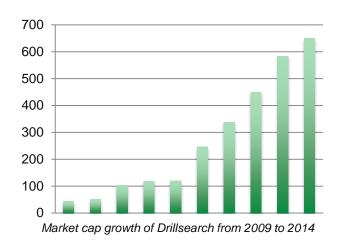
#### Expertise:

- Proven upstream/midstream oil & gas company building track record
- Business development, New Ventures, M&A and corporate finance

#### Experience:

- Tenneco Energy
- El Paso Corporation
- Sunshine Gas
- Commonwealth Bank of Australia (SVP & Head of Oil & Gas)



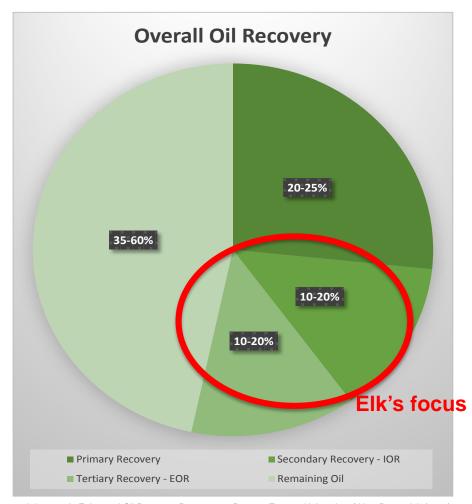


#### What is EOR?



# 'For every barrel of oil extracted from oil fields in primary recovery phase, there remains 3-4 barrels of stranded oil left in the ground'

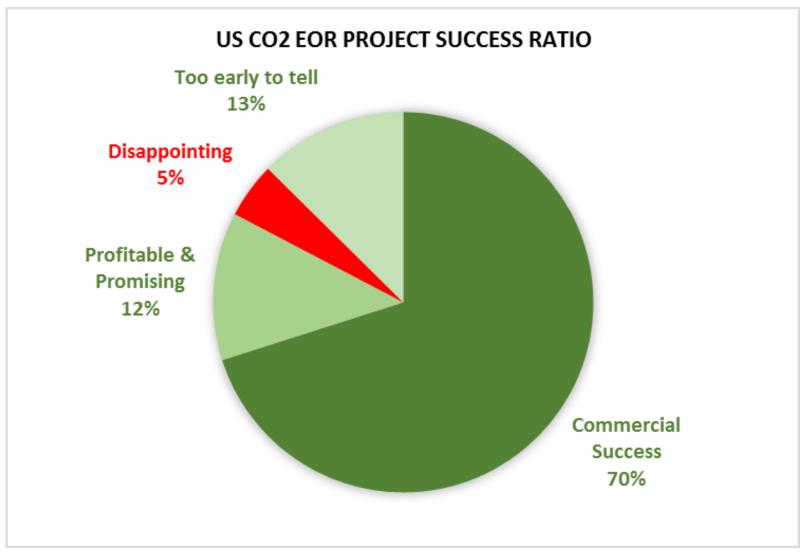
- Specialist secondary & tertiary method of oil recovery
- Can extract up to 40% more than primary recovery method
- Substantially increase overall oil recovery from & productive life of fields
- Proven approach successfully deployed for nearly 50 years
- Deliver attractive economics even in low oil price markets
- Used extensively in North America & Middle East
- Largely under-utilized in Australasia
- Widely implemented techniques include CO<sub>2</sub> injection



Source: Advances in Enhanced Oil Recovery Processes – Romero-Zeron – University of New Brunswick (2012)

# Proven Approach in Proven Fairways – US CO<sub>2</sub> EOR Success Rate





Source: Oil & Gas Journal/Pennwell 2014 EOR Survey Report

#### CO<sub>2</sub> EOR – Wood MacKenzie's View





February 2015

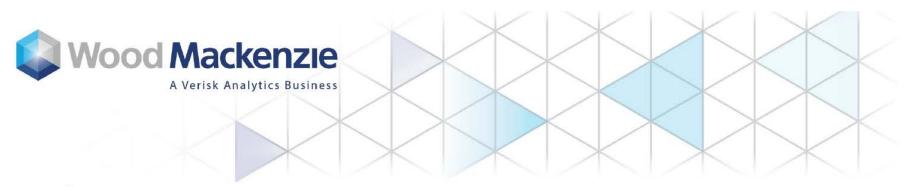
# Denbury Resources - US Gulf Coast

#### Enhanced oil recovery and the need for CO<sub>2</sub>

Tertiary CO2 flood operations are low-risk projects that provide consistent, organic production growth. However, these projects require a large amount of upfront capital and multi-year planning before the first production response is experienced. Access to low-cost CO2 reserves and CO2 transportation pipelines are key to Denbury's strategic advantage. Denbury's CO2 source field is Jackson Dome, a Cretaceous-age buried volcano located in central Mississippi. Jackson Dome is the only natural source of CO2 in the Gulf Coast area, giving Denbury a monopoly on regional production of CO2. Natural sources of CO2 are preferable to anthropogenic sources because they produce at pressures suitable for pipeline transport and injection. Wood

#### CO<sub>2</sub> EOR – Wood MacKenzie's View





February 2015

# Denbury Resources - US Gulf Coast

#### Enhanced oil recovery and the need for CO<sub>2</sub>

Tertiary CO2 flood operations are low-risk projects that provide consistent, organic production growth. However, these projects require a large amount of upfront capital and multi-year planning before the first production response is experienced. Access to low-cost CO2 reserves and CO2 transportation pipelines are key to Denbury's strategic advantage. Denbury's CO2 source field is Jackson Dome, a Cretaceous-age buried volcano located in central Mississippi. Jackson Dome is the only natural source of CO2 in the Gulf Coast area, giving Denbury a monopoly on regional production of CO2. Natural sources of CO2 are preferable to anthropogenic sources because they produce at pressures suitable for pipeline transport and injection. Wood

#### **EOR's Competitive Advantage**



'We can't control the oil price, so we have to focus on how much we get out of the ground and what it costs"

CO <sub>2</sub> EOR	Shale & Tight Oil			
Conventional	Unconventional			
No fracking required	Fracking essential			
Low cost production: = <\$15-25/bbl of recovered oil	High cost production = Avg. Shale Oil >\$50-60/bbl			
Low CAPEX per barrel	High CAPEX per barrel			
High Recovery Factors = >50%-65% of OOIP	Low Recovery Factors = <5%-10% of OOIP			
Low production decline rates = <10% per year	High production decline rates = >60%-90% over 3 years			
Applicable to 1000s of existing proven conventional oil fields	Potentially applicable to many shale and tight oil rocks			
Lower cost, Higher recoveries and Longer lasting	Higher cost, Lower recoveries and Short-lived			
Source: http://fossilbayenergy.com/2015/01/28/replace-unconventional-shale-oil-production-with-portable-co2-eor-oil-production/				

CO2 EOR generates significant environmental benefits by using, capturing & storing substantial quantities of natural and man-made CO2 not realized in other oil & gas operations

#### **EOR's Competitive Advantage**



'We can't control the oil price, so we have to focus on how much we get out of the ground and what it costs"

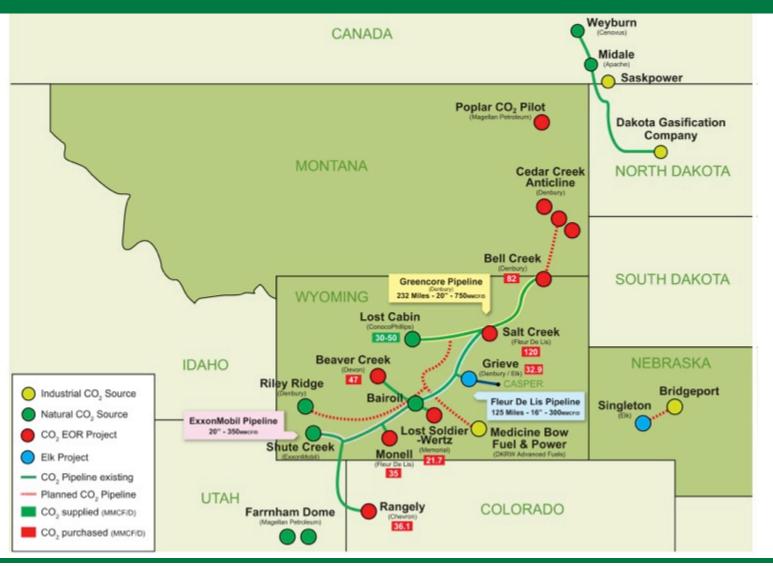
CO <sub>2</sub> EOR	Shale & T.				
Conventional	Production				
No fracking required	, ang Life.				
Low cost production: = <\$15-25/bbl of recovered oil	vg. Shale Oil >\$50-60/bbl				
Low CAPEX per barrel	ah Reco				
High Recovery Factors = >50%-65%	∠ow Recovery Factors = <5%-10% of OOIP				
CO <sub>2</sub> EOR  Conventional  No fracking required  Low cost production: = <\$15-25/bbl of recovered oil  Low CAPEX per barrel  High Recovery Factors = >50%-65%  Low production decline recovered oil  Low production decline recovery  Applicable to 1000s  Low Potentially applicable to many shale and tight oil  Source: http://foss.  Shale & T.  Long Life Production  Vg. Shale Oil >\$50-60  Low Recovery Factors = <5%-10% of Ooll  High production decline rates = >60%-90% over  Potentially applicable to many shale and tight oil  Higher cost, Lower recoveries and Short-life  Source: http://foss.					
Applicable to 1000s Risk, melds	Potentially applicable to many shale and tight oil rocks				
Lower EOR Longer lasting	Higher cost, Lower recoveries and Short-lived				
Source: http://fossi. CO1 Source: http://fos					

CO<sub>2</sub> EOR generates significant environmental benefits by using, capturing & storing substantial quantities of natural and man-made CO<sub>2</sub> not realized in other oil & gas operations

#### **Proven Approach in Proven Fairways**



#### Elk's Grieve Project is located in a region where there is high EOR activity



#### **Grieve CO<sub>2</sub> EOR Project - Overview**



- Field easily accessible
- Project over 75% complete
- Agreement on JV restructure
- Material increase in reserves
- Significant cost savings and controls
- Outstanding F&D and operating costs
- Robust and financeable economics
- Strong look forward economics
- Compares favourably to other top tier projects
- New arrangements deliver superior share of project value
- Elk gets significant additional income from 100% owned oil export pipeline
- First oil scheduled for late 2017 / early 2018

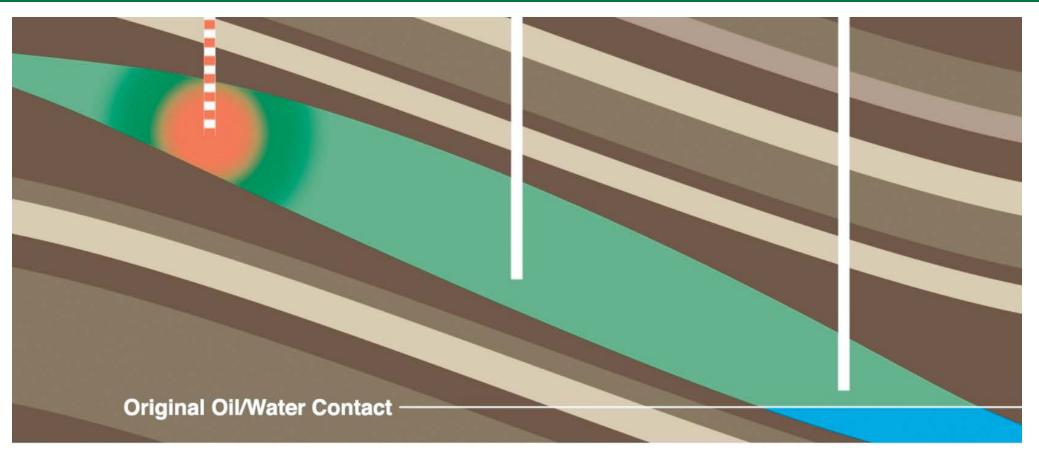


Grieve CO <sub>2</sub> EOR Project Reserves & Resources				
Scenario	Post JV Restructure (MMbbl)			
	Gross	Net		
2P (Probable Reserves)	12.2	5.3		
3P (Probable + Possible Reserves)	16.3	7.0		
3C (Contingent Resources)	16.3	7.0		

Refer to Elk announcement dated 21 December 2015 for further information in relation to the re-structure

# Grieve CO<sub>2</sub> EOR Project – A Reservoir-level View

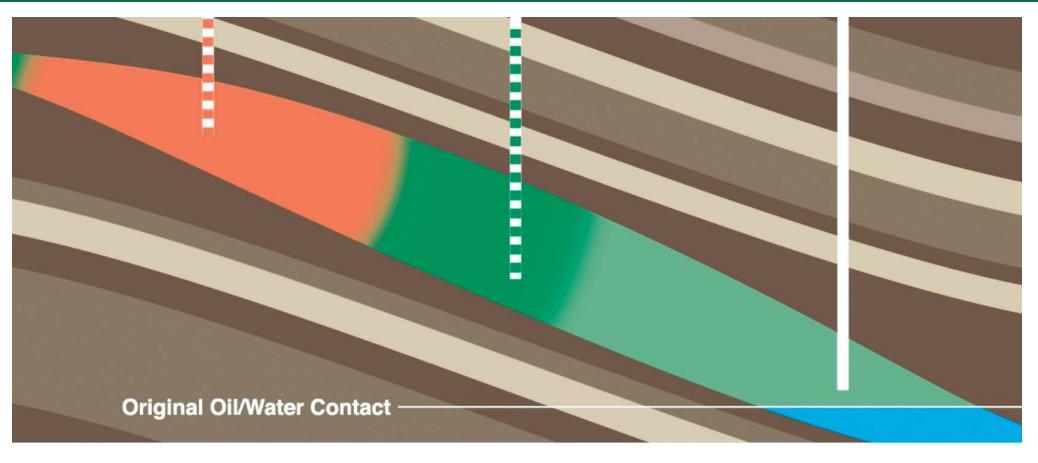




Residual oil and water left in the Muddy reservoir after primary and secondary recoveries

## Grieve CO<sub>2</sub> EOR Project – A Reservoir-level View

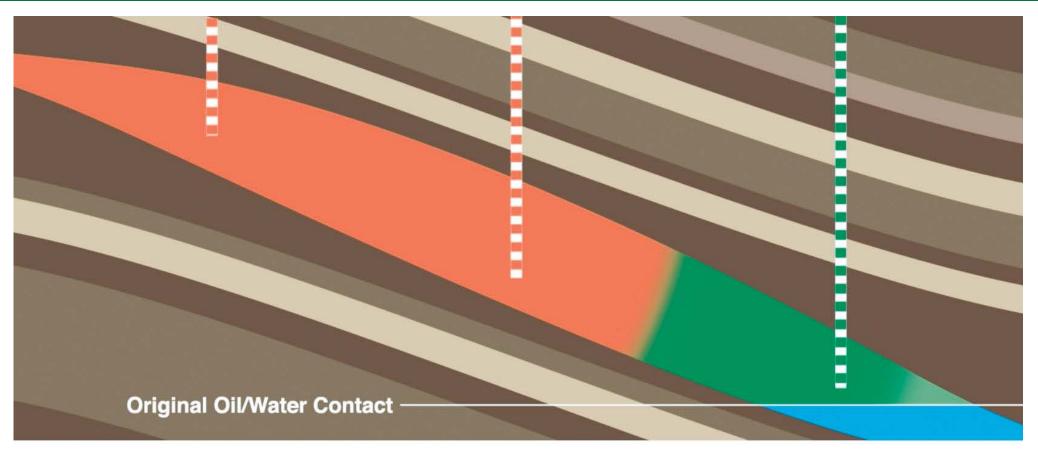




Injected high pressured CO<sub>2</sub> forms a miscible phase with residual oil

## Grieve CO<sub>2</sub> EOR Project – A Reservoir-level View





The CO<sub>2</sub>-oil miscible phase is produced to surface and CO<sub>2</sub> advances down dip mixing with residual oil to form the miscible phase

# Grieve CO<sub>2</sub> EOR Project – Where are we – progress to date



# Work Completed

# Reservoir repressurising

# Remaining Steps

New injection and production wells	✓
In-field CO <sub>2</sub> /water injection & oil production flow lines	✓
Power supply from local grid installed	<b>✓</b>
Site works and production manifold	<b>✓</b>
3-mile CO <sub>2</sub> supply line	✓
Crude oil export pipeline upgrade	✓

10+ million barrels water injected		
30+ BCF of CO <sub>2</sub> injected	✓	
Est. 20 BCF of additional CO <sub>2</sub> required to achieve first oil	✓	
Currently injecting CO <sub>2</sub> at 55-60 MMCFD	✓	
Minimum Miscible Reservoir Pressure achieved & rising ahead of forecast	✓	

Construction of oil processing & CO <sub>2</sub> recompression facilities	Commence H2 CY2016			
Continue injection of water and CO <sub>2</sub> into Grieve field	Ongoing			

# Grieve CO<sub>2</sub> EOR Project – Where are we – progress to date



## Work Completed

#### New injection and production In-field CO<sub>2</sub>/water injection & oil production flow lines Power supply from local grid installed Site works and production manifold

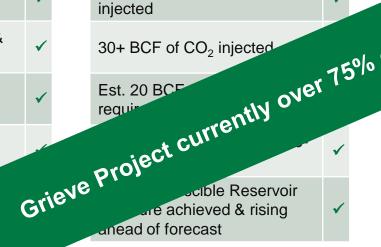
3-mile CO<sub>2</sub> supply line

Crude oil export pipeline

upgrade

wells

# Reservoir repressurising



10+ million barrels water

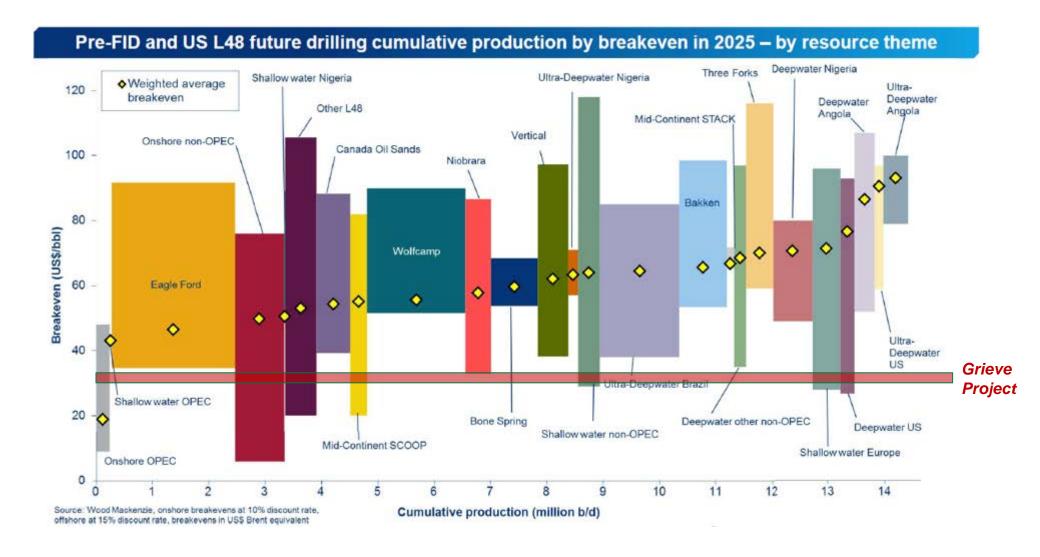
#### Remaining Steps

complete ties	Commence H2 CY2016
o COMP on of CO <sub>2</sub> into	Ongoing

#### **Development Cost Comparison**



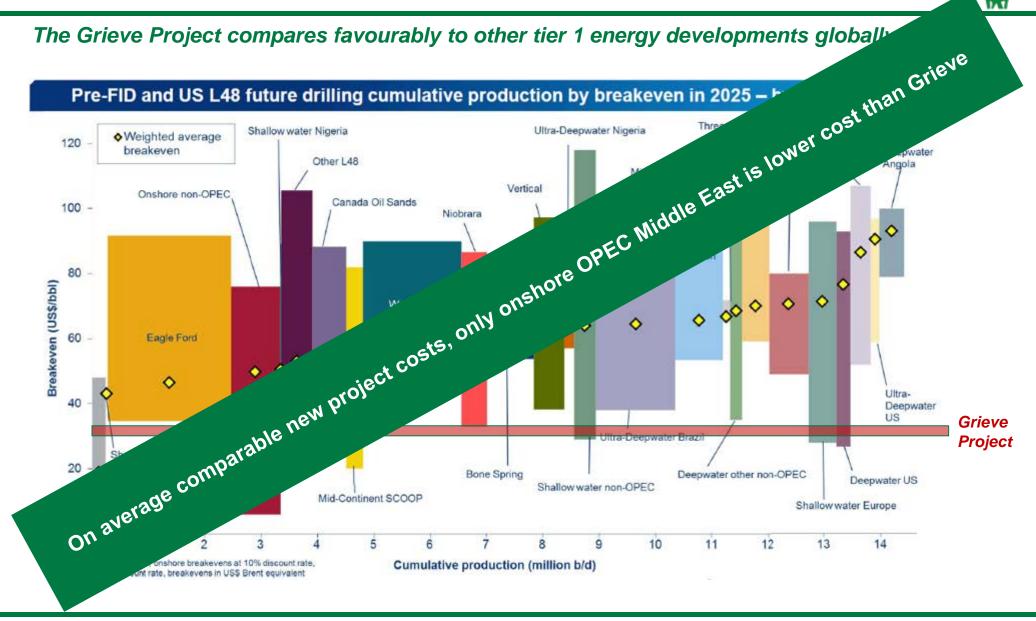
The Grieve Project compares favourably to other tier 1 energy developments globally



#### **Development Cost Comparison**



The Grieve Project compares favourably to other tier 1 energy developments globally

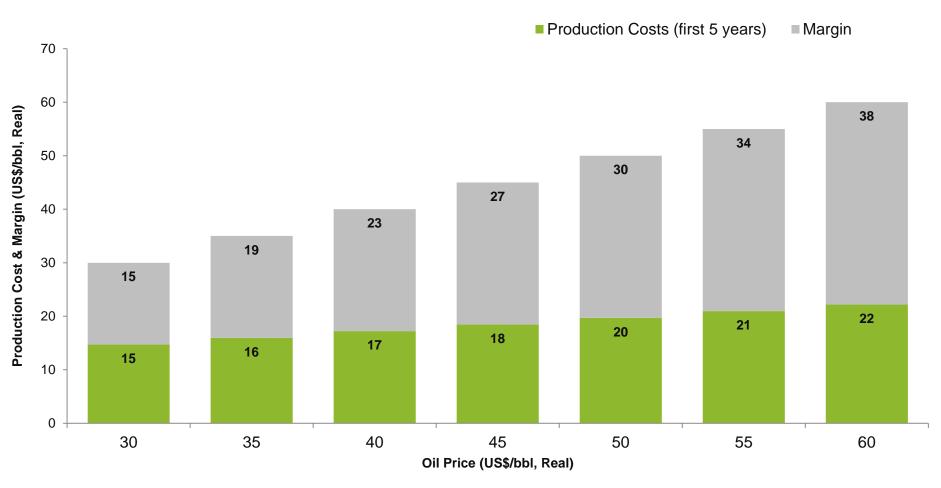


#### **Production Cost & Margin**



#### Production margins remain robust, even in low oil price conditions

Production Costs (Including Royalties) and Margin (US\$/bbl, Real)(1)



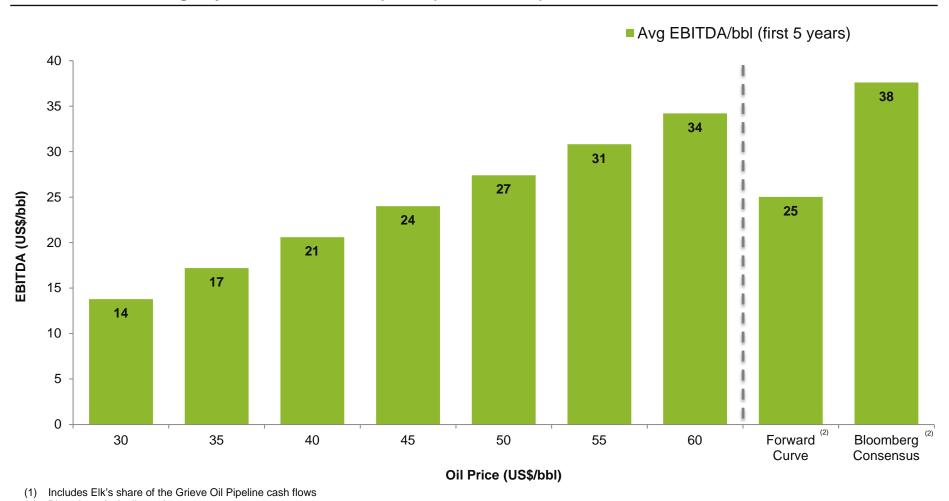
<sup>(1)</sup> Includes all Elk's share of the Grieve Oil Pipeline cash flows

#### **Project Economics: EBITDA**



#### Earnings remain positive, even in low oil price conditions

EBITDA/bbl, Including Royalties & Grieve Oil Pipeline (US\$/bbl, Real)(1)



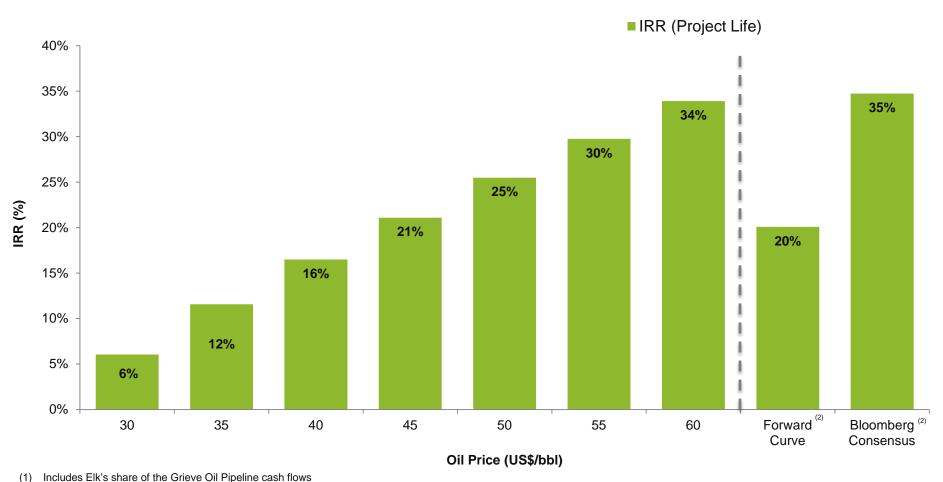
<sup>(2)</sup> Bloomberg (6 April 2016)

#### **Project Economics: IRR**



#### Elk is forecast to realise a positive IRR above US\$30/bbl

IRR, Net to Elk (%, pre-tax, pre-finance, Nominal)(1)



<sup>(1)</sup> Includes EIK's snare of the Grieve Oil Pipeline cash flow

(2) Bloomberg (6 April 2016)

#### **Indicative Valuation**



--- Elk Share Price

38

Growth

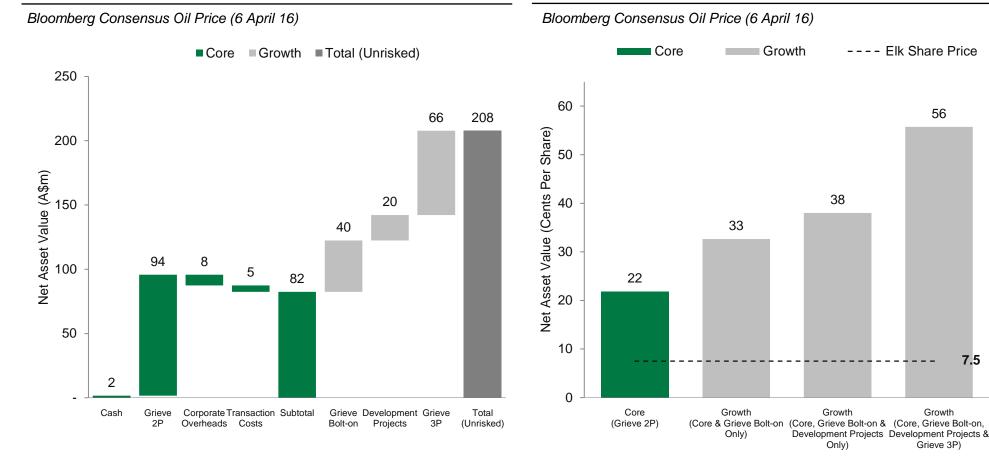
Only)

56

#### The implied Elk 2P valuation ranges ~A\$80m to ~A\$210m NAV and between 22 to 56 A\$cps

#### Elk Net Asset Value, Pre-tax (A\$m)

#### Elk Net Asset Value, Pre-Tax (A\$ Cents per Share)(1)



<sup>(1) 369.9</sup>m Elk shares on a diluted basis (post the conversion of the in -the money convertible notes 107.1m shares) Source: Bloomberg (6 April 2016), AUD: USD exchange rate of 0.75

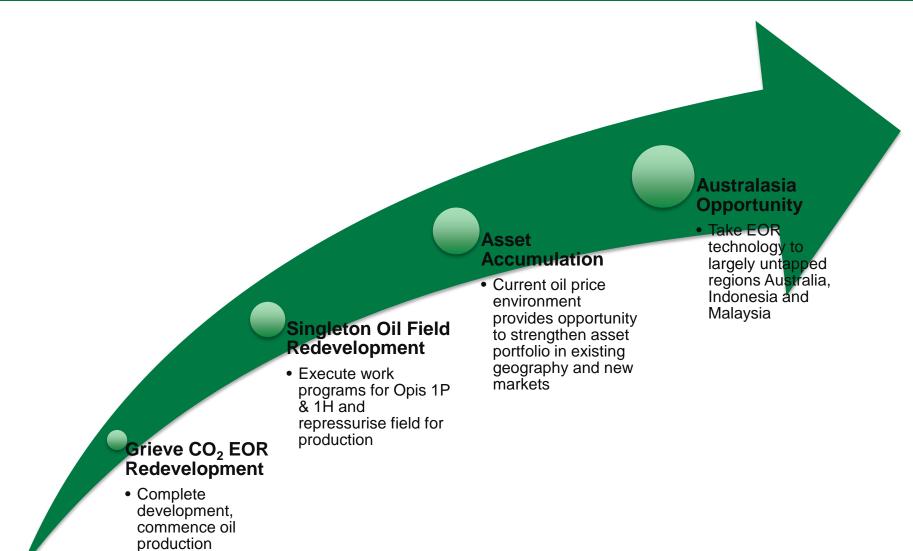
7.5

Growth

Grieve 3P)

## **Value-add Strategy**



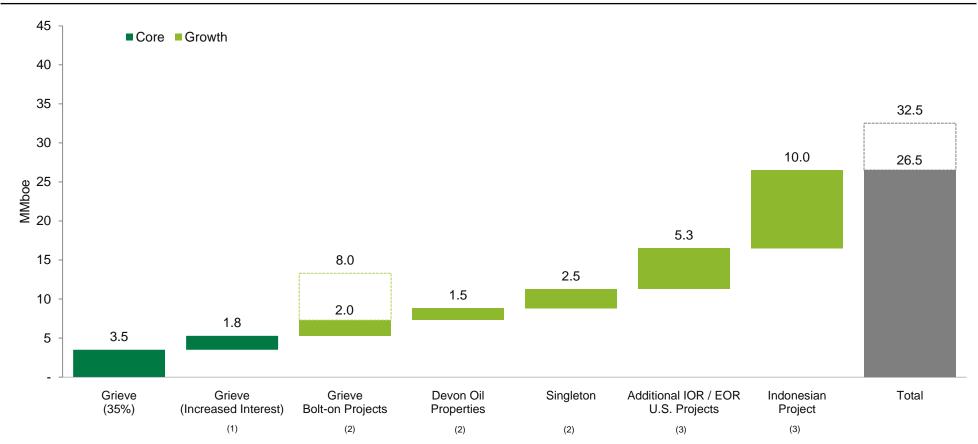


#### **Beyond Grieve: Elk Growth Potential**



#### Elk has identified additional EOR opportunities that are achievable in the next 12 months

#### Potential 2P Volumes, Net to Elk



<sup>(1)</sup> Assuming an increased interest in Grieve reflecting current discussions with Denbury

Note: Volumes shown are rounded to 1 decimal place

<sup>2)</sup> Assuming conversion of 2C resources into 2P reserves

<sup>(3)</sup> On the basis of initial exploratory engagement

# When will it happen? Activity Pipeline



	CY2016		CY2017					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalise Grieve JV restructure								
Secure US\$55m funding for remaining Grieve development								
Commence construction of Grieve Facility								
Grieve Field repressurisation complete								
First Oil Production from Grieve								
Reconnect Production Facility to Opis 1H well site								
Recomplete Opis 1P testing and connect water to Singleton W-3 well								
Reactivate Singleton W-3 well and commence repressurisation of Singleton								

## **Key Takeaways – Investing in Elk**



- Only ASX-listed oil company focussed on enhanced oil recovery (EOR)
- Pipeline of high-quality projects ranging from early stage to late stage nearing completion
- Main projects are in the prolific Northern Rocky Mountain Oil Fairway in the states of Wyoming, Montana & Nebraska, USA
- Company's flagship EOR Project the Grieve Project is over 75% complete and will commence production late 2017/early 2018
- To deliver the Grieve Project, ELK has partnered with Denbury Resources, North America's leading EOR oil production company
- Under new partnership arrangements Denbury is guaranteeing both cost and time for completion, and project start-up
- ELK has agreed to fund the US\$55m the last 30% of CAPEX in return for 60% of the profits & 49% of the equity
- Significant annuity revenue to Elk from 100%-owned Grieve Oil Pipeline
- Annual EBITDA for first 5-years averages US\$15-25 million
- Grieve Project is repeatable and ELK has already identified additional projects with 20 miles of the Grieve Project supporting additional growth
- Grieve Project funding will come from combination of senior and mezzanine debt and new equity capital funding

# Grieve Project Economics

Project life	20 years
Capex invested to date	US\$120m
Remaining capex spend	US\$55m
Development cost (/bbl)	US\$7-10
Operating cost (/bbl)	US\$14
Profit margin (/bbl)	US\$27-39
Annual EBITDA (first 5 years)	US\$15-25m
Total projected revenue*	US\$240-320m

\*forecast Elk net revenue over 20 year project life



# ELK PETROLEUM &

Contact:

Level 1, 10 Bridge Street, Sydney, 2000 02 9093 5400

info@elkpet.com

Proactive Investors Luncheon Presentation – 12-13 April 2016