Elk Petroleum (ASX:ELK)

28 June 2017

Cash flow of ~US$7 million forecast in CY2017

January acquisition delivers above expectations

- Elk Petroleum (ASX:ELK) acquired, effective 1 January 2017, from Freeport-McMoran (NYSE:FCX), a 14% working interest in the Madden Gas Field and Lost Cabin Gas Plant in Wyoming USA, 95km NW of ELK's current Grieve Project. This is an excellent fit, in our view, with the Grieve CO_2 EOR Project, a joint venture with Denbury Resources (NYSE:DNR). DNR is an ideal partner as it has successfully commissioned around 25 EOR projects in the US to-date and is a supplier of abundant, cheap, natural CO_2**.** The cost of the acquisition to ELK was US$17.5M, funded mainly through debt.
- With this acquisition, ELK's 2P Reserves increased from 5.3MMboe to 20.5MMboe.
- **The Madden/Lost Cabin acquisition has delivered total gas sales in the March Quarter of US$6.35m for a net operating profit of US$1.6m. Average daily production of 24.6MMSCFD (24.6 million standard cubic feet per day), is 40% above expectations**. ELK has also become a supplier of CO2 in its own right.

Grieve Project targets output in late 2017/early 2018

- Grieve's production is expected to commence late CY17/early CY18, with strong initial cash flow from >1MMbpa project production. Decline rates are lower than for conventional oil production. For the first and second 1MM bbl of production, ELK receives 75% and 65% of net operating cash flow, with 49% thereafter. ELK is also aiming to develop an EOR hub in the Denver-Julesburg (DJ) Basin (ELK 100%). Although smaller, this has the potential to grow in size and significance through acquisitions.
- EOR is a tertiary recovery method, targeting the substantial residual oil remaining in mature or life-expired oil fields. Incremental recoveries can be 10-20% of original oil-in-place. There are several EOR methods but ELK's focus is CO2 injection, recognised as the most efficient EOR method.
- <u>ELK's current US activities provide a platform for leveraging its EOR expertise to create scalable growth, both in the US and overseas.</u>
- The characteristics of an EOR project are upfront capital expenditure, mainly for plant and CO2 pressurisation, followed by potentially low operating costs, very low sustaining capital and minor further exploration. CO_2 EOR projects typically generate very good ROI's, while IRR's are more modest even with high oil and gas prices.
- **Our valuation uses the NPV_{10} method for Madden/Grieve (up to A$0.13) plus an additional A$0.09 for potential 2P USA volumes growth, using Resource/Reserve metrics. Under our base case we therefore value ELK in a range from A$0.13-0.22/share.**

Share Price	**A$0.06ps**
Target Price	**A$0.17ps**

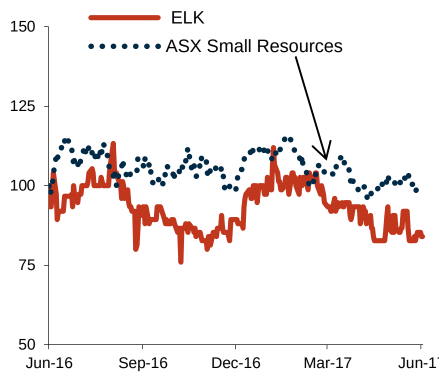
Recommendation:
Speculative Buy

Risk Assessment: **Higher**

Resources – Oil & Gas

Kevin Kartun
Analyst
kkartun@bigpond.net.au
0413 806 353

Share price relative



Source: IRESS, State One Stockbroking

ELK PETROLEUM

Why Invest?

Elk Petroleum Limited (ASX: ELK) has a number of key competitive advantages:

The only oil and gas company, focused on EOR, listed on the ASX

- **It is the only ASX-listed oil company focused on enhanced oil recovery (EOR).**
- ELK has strong leadership, with proven track record of value creation. Management has extensive experience and expertise in EOR. The executive team and headquarters are in Sydney with established management teams based in Denver, Colorado and Casper, Wyoming.
- There is a 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 and Nebraska, USA.
- The Grieve Project, ELK's flagship EOR Project, is over 75% complete and will commence production in 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 production start-up.
- ELK has funded the last 30% of CAPEX (US$55m), in return for 60% of the profits and 49% of the equity.
- Significant annuity revenue accrues to ELK from its 100% owned Grieve Oil Pipeline.
- **The Grieve Project is now fully funded from a combination of debt (senior and mezzanine) and new equity capital.**
- Annual Grieve Project EBITDA for first 5 years is forecast conservatively to average US$15 million to US$25 million.
- The Grieve Project is repeatable. ELK has already identified projects within 20 miles of the Grieve Project, which will support additional growth.
- ELK is now launching into its Singleton South by-passed oil appraisal project.
- Following successful appraisal testing, start of full scale Singleton South development is expected in mid-2017.
- Singleton Unit and Singleton South projects provide an additional parallel growth path with significant upside
- There is significant opportunity to apply EOR in largely untapped areas outside of the USA.
- The current oil price environment presents a unique opportunity for low cost EOR project accumulation.

Valuation

We have calculated cash flows in US$ for the Grieve Project using the production profiles as given by the company for its 2P reserves as our base case. Profits are net of royalties and including pipeline revenues. NPV10 was estimated at US$56M or A$0.085 on a fully diluted basis. If 3P reserves are used, the valuation is boosted to A$0.10 on a fully diluted basis.

Taking into account the 2P volumes growth potential for Grieve and the other projects, we have estimated that the valuation could increase to A$0.17.

Hedging is in place for a lower limit of the oil price received of US$ 45/bbl with no limit on the upside. Average cost of production for the Grieve Project is given as US15/bbl based on a WTI Oil Price of US$50/bbl. Costs are relatively fixed, so any increase in the oil price goes straight to the bottom line. The break-even cost of the project is estimated at US$30/bbl. A major input cost is CO_2, but the first 59Bcf are free and thereafter prices are at highly favourable rates.

Table 1: Grieve Project NPV (US$m)

	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	LOM
Resources - start (MMbbl)	5.330	5.330	4.380	3.360	2.380	1.480	
Resources - end (MMbbl)	5.330	4.380	3.360	2.380	1.480	0.630	
Production - gross (MMbbl)	-	0.950	1.020	0.980	0.900	0.850	5.3
Elk share (%)	na	67%	58%	43%	44%	44%	
Elk share (MMbbl)	-	0.633	0.591	0.424	0.398	0.373	2.7
Revenue (US$m)	-	32.3	30.7	22.5	21.5	20.6	142.5
Costs-Production (US$m)	-	(9.7)	(9.2)	(6.7)	(6.5)	(6.2)	(42.7)
Costs-Corporate /Admin (US$m)	(2.6)	(2.7)	(2.7)	(2.8)	(2.8)	(2.9)	(17.9)
Total costs (US$m)	(2.6)	(12.3)	(11.9)	(9.5)	(9.3)	(9.0)	(60.6)
EBITDA (US$m)	(2.6)	19.9	18.8	13.0	12.3	11.5	81.8
Tax (US$m)	-	-	-	-	-	-	-
NPAT (US$m)	**(2.6)**	**19.9**	**18.8**	**13.0**	**12.3**	**11.5**	**81.8**
Equity financing (US$m)	23.1	-	-	-	-	-	23.1
Debt financing (US$m)	58.0	-	-	-	-	-	58.0
Capex (US$m)	(60.0)	(20.0)	(1.0)	(1.0)	(1.0)	(1.0)	(84.5)
Cash flow (US$m)	18.5	(0.1)	17.8	12.0	11.3	10.5	78.4
Discount rate	*10%*						
NPV (US$m)	**56**						

Assumptions	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E
ARP (US$/bbl)	50.0	51.0	52.0	53.1	54.1	55.2
AUDUSD	0.75	0.75	0.75	0.75	0.75	0.75
Costs-Production (US$/bbl)	15.0	15.3	15.6	15.9	16.2	16.6
Effective tax rate (%)	-	-	-	-	-	-

Source: State One Stockbroking forecasts

Note: Elk net share includes royalty

General Advice Warning

The contents of this document have been prepared without taking account of your objectives, financial situation or needs. You should, before taking any action to acquire or deal in, or follow a recommendation (if any) in respect of any of the financial products or information mentioned in this document, consult your own investment advisor to consider whether that is appropriate having regard to your own objectives, financial situation and needs. Whilst State One Stockbroking Ltd believes information contained in this document is based on information which is believed to be reliable, its accuracy and completeness are not guaranteed and no warranty of accuracy or reliability is given or implied and no responsibility for any loss or damage arising in any way for any representation, act or omission is accepted by State One Stockbroking Ltd or any officer, agent or employee of State One Stockbroking Ltd. If applicable, you should obtain the Product Disclosure Statement relating to the relevant financial product mentioned in this document (which contains full details of the terms and conditions of the financial product) and consider it before making any decision about whether to acquire the financial product.

Disclosure

The directors and associated persons of State One Stockbroking Ltd may have an interest in the financial products discussed in this document and they may earn brokerage, commissions, fees and advantages, pecuniary or otherwise, in connection with the making of a recommendation or dealing by a client in such financial products.

This report was prepared solely by State One Stockbroking Limited. ASX did not prepare any part of the report and has not contributed in any way to its content. The role of ASX in relation to the preparation of the research reports is limited to funding their preparation by State One Stockbroking Limited, in accordance with the ASX Equity Research Scheme. ASX does not provide financial product advice. The views expressed in this research report may not necessarily reflect the views of ASX. To the maximum extent permitted by law, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by ASX as to the adequacy, accuracy, completeness or reasonableness of the research reports.

The Research Analyst who prepared this report hereby certifies that the views expressed in this research document accurately reflect the analyst's personal views about the company and its financial products. The research analyst has not been and will not be receiving direct or indirect compensation for expressing the specific recommendations or views in this report. This research at all times remains the property of State One Stockbroking Ltd. And as such cannot be reprinted, distributed, copied, posted on the internet, in part or whole, without written prior approval from the Executive Director of State One Stockbroking Ltd.

Alan Hill
Executive Chairman
Phone: +61 8 9288 3388
ahill@stateone.com.au

Ric Heydon
Equities & Derivatives Advisor
Phone: +61 8 9288 3307
rheydon@stateone.com.au

Mark Sullivan
Institutional Dealer
Phone: +61 2 9024 9134
msullivan@stateone.com.au

Thomas Tan
Equities Advisor
Phone: +61 2 9024 9131
ttan@stateone.com.au

Morris Levitzke
Equities Advisor
Phone: +61 8 9288 3315
mlevitzke@stateone.com.au

Graeme Johnson
Equities & Derivatives Advisor
Phone: +61 8 9288 3316
gjohnson@stateone.com.au

Yitz Barber
Equities Advisor
Phone: +61 2 9024 9107
ybarber@stateone.com.au

Tammie Wong
Equities Advisor
Phone: +61 2 9024 9133
twong@stateone.com.au

Alexander Bax
Equities Advisor
Phone +61 8 9288 3340
abax@stateone.com.au

David Zhang
Equities Advisor
Phone: +61 2 9024 9130
dzhang@stateone.com.au

David Brennan
Senior Investment Analyst
Phone: +61 2 9024 9142
dbrennan@stateone.com.au