

29 January 2015

# GRIEVE PROJECT - RESERVES UPDATE

**Elk Petroleum Limited (ASX Code: ELK)** advises that it has received a revised reserve report for the Grieve CO<sub>2</sub>-EOR (enhanced oil recovery) project operated by Denbury Resources, in which Elk has a 35% working interest.

Elk engaged Pressler Petroleum Consultants, Inc. ("Pressler"), located in Montgomery, Texas, to prepare a revised reserve report for Elk Petroleum for the Grieve CO<sub>2</sub>-EOR project. Pressler provided reserves estimates that are compliant with the SPE-PRMS¹ rules and which also meet the latest ASX/JORC rules. Under the SPE-PRMS guidelines, reserves are booked at the end of the year based on the average price of oil for the year, which in 2014 was US\$94.99 for the West Texas Intermediate (WTI) benchmark. The resulting estimates for 2P and 3P reserves & 3C resources and Forecast Net Revenue (FNR)² values are shown in the following table (all values are expressed on a net Elk basis equal to 28.8% reflecting adjustments of Elk's 35% working interest for the approximate 18% net royalty interests held by third parties, including state and federal royalties):

# Reserves Summary as of December 31, 2014

	Net Oil	Capital Expenditures	FNR	FNR Discounted at
Scenario	(MBbl)	(\$MM)	(\$Million)	10% (\$Million)
2P (Probable Reserves)	3,455	25.8	125.4	41.1
3P (Probable + Possible Reserves)	4,660	22.4	251.4	90.1
3C (Contingent Resources)	4,685	21.1	235.5	100.9

### Pressler's three scenarios are described below:

2P – Gross reserves of 12.0 million barrels, which is the historical estimate reported by Denbury for Grieve as published in Investor Relations materials. This estimate of 2P reserves assumes the operator's current plan to purchase 60 BCF of CO<sub>2</sub> for the project, and that 18% of an assumed original-oil-in–place (OOIP) of 68 million barrels will be recovered. The 18% is reflective of a close analog in the same geological environment as Grieve.

3P – Gross reserves of 16.1 million barrels, which assumes a recovery of nearly 24% of the OOIP, which is considered possible due to the high quality of the Grieve reservoir versus the 2P analog, but this estimate is still based on purchasing only 60 BCF of CO<sub>2</sub> for the project.

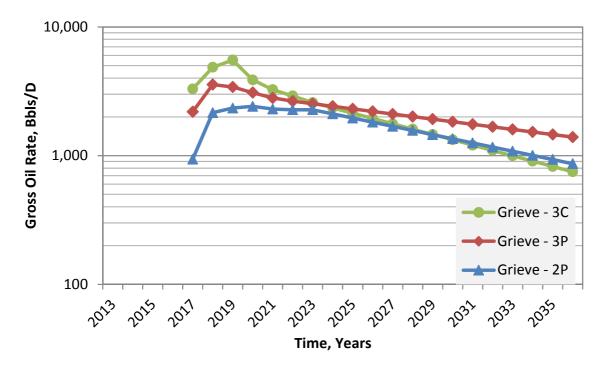
3C – Gross resources of 16.3 million barrels, which again assumes a recovery factor of 24% of OOIP, but assumes an increased amount of CO<sub>2</sub> will be injected into the reservoir early in the life of the flood, with a total of 100 BCF of CO<sub>2</sub> purchased for the project, resulting in an acceleration of the oil production and improved project economics. This case is contingent upon the operator utilizing more than the 60

<sup>&</sup>lt;sup>1</sup> Society of Petroleum Engineers – Petroleum Resources Management System

<sup>&</sup>lt;sup>2</sup> Forecast Net Revenue (FNR) is equivalent to net Present Value (PV)

BCF assumed for the 2P and 3P cases for the Grieve project; this scenario is therefore classified as a "contingent resource" case.

The following plot shows the production forecast for the Grieve project under these three scenarios:



Pressler's 2P reserve estimate of 12.0 million barrels is less that the previous estimate prepared for Elk by Ryder Scott in February 2013. The key reason for the reduction in the 2P estimate is that the operator currently intends to purchase only 60 BCF of CO<sub>2</sub> for the project versus values above 100 BCF assumed by Ryder Scott; in addition, the operator is implementing the CO<sub>2</sub>-EOR project as a pattern flood, rather than as a top-down gravity stable flood, which would require more CO<sub>2</sub>. The redesigned project will recover less oil, but by reducing the need for CO<sub>2</sub> it also materially reduces the near and medium term capital and operating costs of the project, resulting in an improved Internal Rate of Return (IRR) for the project.

The redesigned project results in a substantial reduction in the near and medium funding needs for Elk for the project, which are estimated to be US\$10 million from December 31, 2014. The reduction in the amount of CO<sub>2</sub> that the operator intends to purchase for the Grieve project could provide Elk with the opportunity to employ 35% of the excess CO<sub>2</sub> under the original 168 BCF contract in another future EOR project in Wyoming.

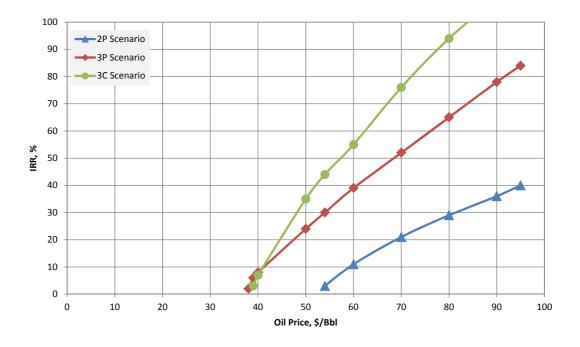
The forecast Internal Rate of Return (IRR) and PV-10 value for the Grieve CO<sub>2</sub>-EOR project from the Pressler analysis at different future oil prices (beginning in 2017) are shown on the following graphs. These results are net to Elk's 35% working interest after costs and royalties but before US Federal income tax (the results assume Elk invests an additional US\$10 million into the project and pays off the Denbury US\$12 million loan out of initial oil production from the project). In the 3P and 3C cases, after production exceeds 12 million barrels, Elk receives an additional 2% over-riding royalty interest. Under similar assumptions, the Pressler and Ryder Scott estimates do not differ markedly.

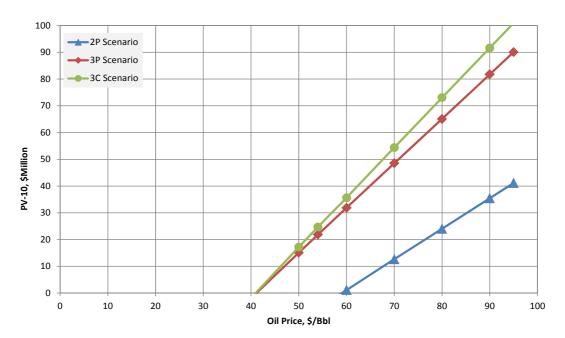
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Pressler's analyses used the following assumptions in their economic evaluations for the project:

Scenario	2P	3P	3C
Oil Recovery, MMBO	12.0	16.1	16.3
Oil Recovery, % of OOIP	18	24	24
Peak Oil Rate, Bbls/D	2,410	3,570	5,530
Total CO2 Injected, BCF	377	377	527
Purchased CO2 Injected, BCF	60	60	100
Recycled CO2 Injected, BCF	317	317	427
Max. CO2 Injection Rate, MMCF/D	56	56	100
Gross Full-Life CO2 Utilization, MCF/Bbl	31	23	32
Net Full-Life CO2 Utilization, MCF/Bbl	5	4	6
Water Injected, MMBW	119	119	158

Elk's Chief Executive Officer, Mr Scott Hornafius, stated: 'Elk commissioned this Pressler Report to give the market a current view of the range of reserves/resources associated with the Grieve CO<sub>2</sub>-EOR project and how these reserves/resource estimates translate into associated monetary values. There have been a number of changes to the Grieve development plan and timing since the last study and Elk believes it is appropriate to provide this update as background to the Metgasco-Elk merger proposal that was announced to the market on 22 December 2015. This updated information will be made available to the independent experts appointed by Elk to prepare an Independent Expert's Report to be included in the Scheme Booklet that will be circulated to shareholders in due course, following satisfaction of a number of conditions sought by Metgasco, to explain the merger proposal to shareholders prior to holding an AGM in May to vote on approval of the merger proposal. Pressler's Report shows an encouraging range of results that support of the merger proposal."

#### **Notes to Reserves and Resources Disclosure:**

- Reserves and contingent resources have been classified and categorised according to the SPE-PRMS.
- Reserves and contingent resources have been assessed using deterministic methods.
- Reserves have been stated at the first point of custody transfer and are stated net of fuel and third party royalties.

#### **Qualified Petroleum Reserves and Resource Evaluator Requirements**

The information in this announcement that relates to Reserves and Contingent Resources has been compiled by Mr. Brian Dolan. Presented Reserves and Contingent Resources have been taken from the independent reserve report by Pressler Petroleum Consultants, Inc. ("Pressler") in Montgomery, Texas. Mr. Dolan is a Qualified Petroleum Reserves and Resources Evaluator. 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 the announcement of the matters based on the information in the form and context in which it appears.

#### Pressler Petroleum Consultants, Inc. Consents

Information on the Reserves and 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 information is contained in the report entitled "Evaluation of Oil and Gas Reserves, Grieve Field, Natrona County, Wyoming". 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 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.

## About Pressler Petroleum Consultants, Inc.

Pressler is an independent advisory firm that works in partnership with companies to support their interests in the oil and gas industry. Pressler offers the highest level of technical, commercial and strategic advice to clients around the world. Pressler's services include the preparation of independent reports for listed companies in accordance with regulatory requirements. Pressler is independent with respect to Elk Petroleum in accordance with the Valmin Code, ASX listing rules and ASIC requirements.

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#### ABOUT ELK PETROLEUM

Elk Petroleum Limited ABN 38 112 566 499 (ASX: ELK) is an oil and gas producer and developer with assets located in one of the richest onshore oil regions of the USA: the Rocky Mountains. Listed on the ASX in 2005, Elk's strategy is focused on applying established enhanced oil recovery (EOR) technologies to mature oil fields. This strategy significantly de-risks the process of finding and exploiting oil field reserves.

Leveraging proven EOR technology and experience, particularly those involving CO<sub>2</sub> flood technology, Elk is currently involved in two mature oil fields in the Rocky Mountain region of the USA and is pursuing other opportunities that will benefit from the application of EOR technologies.

For more information on Elk, see Elk's most recent Investor Presentations which are available on Elk's website <a href="https://www.elkpet.com">www.elkpet.com</a>.

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