



ABOUT INVICTUS ENERGY LTD

Invictus Energy Ltd is an independent oil and gas exploration company focused on high impact energy resources in sub-Saharan Africa. Our asset portfolio consists of a highly prospective portion of the Cabora Bassa Basin in Zimbabwe, one of the largest under-explored interior rift basins in Africa.

BOARD & MANAGEMENT

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INVICTUS MODELLING CONFIRMS OIL POTENTIAL OF CABORA BASSA BASIN

Highlights

- **Basin modelling and geochemical study confirms oil potential of Cabora Bassa Basin**
- **Hydrocarbon charge across the Cabora Bassa Basin generated from multiple fluvial, lacustrine influenced and lacustrine source rock sequences**
- **Primary target in Upper Angwa contains these source rocks within the wet gas and oil generation window present day**
- **Source kitchen contained within the fetch area is modelled to have sufficient charge to fill the Mzarabani structure**
- **Basin model demonstrates reduction of risk relating to timing of hydrocarbon charge vs. trap formation**
- **Preliminary gravity data reprocessing confirms shallow basement trend associated with Mzarabani anticline and identifies further leads**

Invictus Energy Limited ("Invictus" or "the Company"), is pleased to announce that the ongoing basin modelling study (the "Basin Model") and geochemical studies confirm the oil potential of the Cabora Bassa Basin. In addition, preliminary gravity data reprocessing also confirms the shallow basement trend associated with the massive Mzarabani anticline and identifies further leads.

Invictus Managing Director Scott Macmillan commented:

"The results of our ongoing technical work are extremely encouraging and is enhancing our understanding of the potential of our acreage in the Cabora Bassa Basin. The basin modelling and source rock characterisation is one of the key pieces of work that significantly de-risks the charge timing and availability to the Mzarabani Prospect and the wider basin as well. In addition, new processing techniques applied to the raw datasets that were not available 25 years ago are beginning to show additional structural detail in the basin that was not previously possible as indicated by the preliminary gravity processing results."



"Our technical work is continuing on this exciting project and we look forward to updating the market on our progress in due course as our work program delivers results."

The Basin Model was built to assess the overall basin potential, to provide further data to de-risk specific prospects and to evaluate the range of parameters that control the magnitude, phase and timing of hydrocarbon generation, expulsion and migration across the Cabora Bassa Basin and SG 4571 acreage.

The Basin Model utilises horizons derived from the vectorised paper seismic sections which have been interpreted to produce a series of basin wide depth surfaces that define the potential extent of the source rock in the Karoo Super Group series in the Cabora Bassa Basin. The Basin Model has allowed the Company to model the petroleum system, and migration of the hydrocarbons through time. The results of the modelling provide the Company with material to further de-risk the extent of the petroleum system across its SG 4571 acreage.

The conclusions from previous source rock characterisation and basin modelling studies undertaken by Mobil over 25 years ago have been superseded with new geological understanding derived from updated industry classification of source rock types and basin modelling methods. The deep lacustrine (lake) source rock type present in the Cabora Bassa Basin was not widely regarded 25 years ago as having significant oil generating potential. However, recent multi-billion barrel oil discoveries in onshore African rift basins such as the Albertine Graben in Uganda and the Lokichar Basin in Kenya are derived from deep lacustrine source rocks contained in these basins. These significant oil discoveries in these basins and elsewhere which are derived from lacustrine source rocks has resulted in the reclassification of their potential as rich oil and wet-gas generating source rocks. Invictus is in the process of acquiring additional outcrop source rock samples over the basin wide area to further enhance the geochemical dataset.

The Basin Model further demonstrates a reduction in the key risk previously identified by Mobil relating to the timing of hydrocarbon charge and trap formation. The previous basin modelling work by Mobil concluded that the Upper Angwa source rock may have generated and expelled hydrocarbons prior to the formation of the trap (Mzarabani anticline / 4-way dip closure). The new Basin Model concludes that the source rock within the primary target of the Mzarabani Prospect, the Upper Angwa Alternations Member, is within the oil and wet gas window present day on the flanks of the basin, and has undergone active hydrocarbon generation post trap formation from the source kitchen within the Mzarabani fetch area.

The Basin Model has also implemented updated understanding of the thermal regime and burial depth history which is a key control of the hydrocarbon phase generation (oil or gas) for this source rock type. Previous Mobil work assumed the strict and now outdated 'McKenzie Model', which results in an overestimation of the regional thermal gradient. This therefore led to higher modelled maturities and the conclusion that the hydrocarbon phase was more likely to be gas than oil. However, the current Basin Model demonstrates that the Mzarabani Prospect may lie within both the light oil generation window (at the crest of the structure) and the wet-gas generation window (on the flanks of the structure) due to size of the structure and significant vertical relief.

The Basin Model has assumed two separate end member cases due to the lack of well calibration within the Cabora Bassa Basin. The first conservative case assumes a widespread but poor quality source rock distribution with little to no liquids potential as per Mobil's previous interpretation. The



second updated case assumes a widespread fluvial to lacustrine source rock with liquids generation potential as per the updated understanding of the Cabora Bassa Basin from ongoing technical work. These two cases are summarised in the presentation lodged on the ASX platform along with this announcement.

Whilst the new Basin Model is far more sophisticated than anything created previously for the Cabora Bassa Basin and the SG 4571 licence area, the Company cautions that modelling is reliant on a series of assumptions, and that notwithstanding the Company's internal estimates for the exploration potential of the Cabora Bassa Project, there is no well calibration within the basin and it is guided by outcrop samples of source rock which may vary in lateral extent and thickness within the basin subsurface. The Basin Model will also be updated once the final 2D seismic dataset has been reprocessed and reinterpreted which is expected towards the end of Q4 2018.

The preliminary gravity data reprocessing has also revealed that subtle NW-SE features enhanced within the southwest of SG 4571 that are obscured by larger features such as the Mzarabani structure are present. These features were unable to be mapped previously due to the seismic line spacing. However, the new reprocessed gravity data along with the aeromagnetic data will assist in the seismic data interpretation in between the 2D seismic lines and are expected to potentially delineate further leads within the basin.

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For further information on Invictus Energy, please visit the Company's website at www.invictusenergy.com

About the Cabora Bassa Project

The Cabora Bassa Project encompasses the Mzarabani Prospect, a TCF+ conventional gas-condensate target which is the largest, undrilled seismically defined structure onshore Africa. The prospect is defined by a robust dataset acquired by Mobil in the early 1990s that includes seismic, gravity, aeromagnetic and geochemical data.

