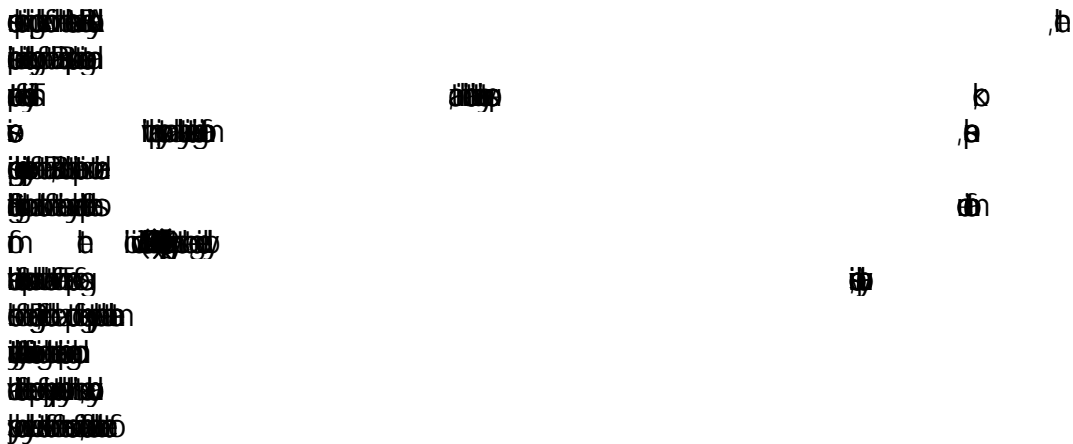


The Bali Basin is a frontier basin located behind the mid-Sunda Arc, a chain of island arc volcanoes extending over 5,000 km throughout Southeast Asia. The depths of back arc basins in combination with complex tectonic motion along the Sunda Arc, can supply the conditions required for hydrocarbon generation and the creation of successful petroleum traps. For this reason, hydrocarbon bearing basins in the central and western Sunda Arc are responsible for Indonesia's high rate of oil production. Abundant oil and gas fields are found in the North, Central, and South Sumatra Basins, as well as the Northwest and Northeast Java Basins. Hydrocarbon production declines in the Bali Basin east of these areas and does not increase throughout the remainder of the eastern Sunda Arc. The Bali Basin has minimal production to date, but this basin has only a limited exploration history.

A model of the Bali Basin constructed in Petrel 2014 was used to correlate stratigraphic units between 26 wells. We interpret shales of the Ngimbang and Kujung III units to be the potential source of hydrocarbons in the Bali Basin. Studies on the Ngimbang

an average reservoir porosity of 34.2%. Carbonaceous shales of the Tuban Formation act as the sealing unit. Based on seismic interpretations off north-shore Madura and Bali, hydrocarbon plays are expected where inversion tectonics thrust low-lying strata above overlying layers. Additional Eocene shale plays could be found along structural closures and where stratigraphic wedges onlap basement rocks.



the basin. Seismic survey and exploratory well logging toward the center of the Bali Basin, south of this study area, would greatly benefit future studies.