
Petroleum Prospects and Discoveries in Central Belize

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ABSTRACT

Recently renewed petroleum exploration efforts in central Belize have shown that small-scale anticlinal features are important productive petroleum traps in that area. These geologic structures are related to tectonic forces that affected the area beginning mainly during Cretaceous but continuing into Paleogene. The trend in orientation of these structures is north-northeast to south-southwest in the northern and central part of Belize, but the trend changes to more nearly east-northeast to west-southwest as these structures draw near to the Maya Mountains. The petroleum-bearing units are the Hill Bank and Yalbac formations, but petroleum may reside in overlying units (Barton Creek and El Cayo carbonates) as well. Petroleum traps at the newly discovered Spanish Lookout Oil Field, and another new oil field nearby, are small-scale anticlines. At this time, Spanish Lookout Oil Field is producing approximately 3000 barrels per day, but has a potential for perhaps as much as 5000 barrels per day. Seismic, aeromagnetic, and gravity data support the interpretation of similar small-scale anticlinal structures in many areas within the two main petroleum concessions of central Belize. These concessions are held separately by Belize Natural Energy (BNE) and a Belizean consortium known as BCH-ZMT. Oil seeps are closely associated with all the known and most of the potential oil fields of central Belize. The Hellgate oil seep was discovered in 1951, but subsequently lost and thus not sampled until it was found again last year. This oil seep may be related to an important subsurface anticlinal feature near the Sibun River, which is within the BCH-ZMT joint concession. This paper reviews the history and potential for petroleum production in the whole of central Belize.