

The Blasillo Field (Upper Miocene), Salina del Istmo Basin, Southeastern Mexico, Part 1: Regional Setting and Petroleum Geology

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ABSTRACT

The Blasillo Field, discovered in 1966, is located in the onshore Salina del Istmo Basin in the southern part of the Gulf of Mexico. This field is present in a minibasin that is surrounded by several shallow allochthonous salt features basin. The field sits on the southern flank of a shallow salt feature, and has a combined structural/stratigraphic trap with three-way closure and an updip pinchout of the reservoirs.

The reservoirs consist of upper Miocene, highly channelized deepwater sands that dip basinward away from a shallow salt feature. Since its discovery, the field has been produced with several distinct stages of development drilling. Development wells have been drilled at a regular 400-m spacing. However, this study indicates the reservoir sands are semi-amalgamated channel-fill deposits with significant shale beds both between the reservoir levels and within the channel-fill sands. These shales likely present barriers between the reservoirs levels, creating zones of bypassed pay; these areas present opportunity for infill drilling.

Recently, the field is being re-evaluated for infill drilling by using recently acquired 3D seismic data, integrated with the known production history and drilling technology. Results of this study indicate considerable potential for reserve growth in two areas. First, with the improved understanding of the reservoir architecture, infill drilling is possible. Second, considerable exploration potential is present in the regions below the shallow allochthonous salt. Prestack depth migration processing will be necessary to image the potential traps.