

GEOLOGY OF THE SOUTHEAST END
OF THE PALEOZOIC PORTION
OF THE CANELO HILLS,
SANTA CRUZ COUNTY, ARIZONA

by

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ABSTRACT

The central Canelo Hills were formed by the block faulting and tilting of Paleozoic and Mesozoic sediments. This fault block trends $N35^{\circ}W$ and dips $35^{\circ}SW$. Beginning with the Upper Cambrian Abrigo Limestone, the rocks exposed are progressively younger from northeast to southwest. The Canelo Hills Volcanics, a group of interbedded sediments, lava flows, and welded tuffs, are in fault contact with the Paleozoic limestones along the southwest side of the fault block.

The Canelo Hills Volcanics are the first volcanic and sedimentary rocks in southeastern Arizona that can be definitely ascribed to the Lower Mesozoic. Their presence may necessitate the reappraisal of some of the "Cretaceous (?)" rocks in nearby areas. In addition, the presence of exotic blocks of Paleozoic limestone interbedded in the lower part of the Canelo Hills Volcanics suggests an alternate hypothesis to account for an anomalous contact between Paleozoic and Mesozoic rocks in the Canelo Hills. Others have considered this contact to be a low-angle thrust fault; this paper suggests that the contact is no more than an unconformity or at most a normal fault.