

rock off the nose of the northeastward-diving nappe formed a broad belt of chaotic deformation including antiformal and synformal overfolds. The plunging action of the gravity slides drove the thrust faults marking the northern edge of the Ouachita Mountains.

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**NEW DEVELOPMENTS OF SECOND  
WILCOX RESERVOIR IN  
OLD GIANT FIELDS OF  
SEMINOLE COUNTY, OKLAHOMA**  
JACQUE W. VINCENT\*  
April 12, 1971

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\*Keener Oil Company, Tulsa, Oklahoma

**GEOLOGY OF THE  
ARCTIC ISLANDS**  
JOHN WONCIK\*  
March 1, 1971

The Arctic Islands of northern Canada is the area of the Sverdrup Basin. This basin, which is north of the Arctic Circle, covers

approximately 350,000 square miles and contains 800,000 cubic miles of sediments. Large anticlines up to 20 miles long and five miles wide are being drilled and gas is being found. Oil seeps are present on Melville Island. Sediments from Ordovician through the Tertiary are present. The Paleozoic is characterized by carbonates and is exposed in the Perry Island Fold Belt. The center of the Sverdrup Basin is characterized by thick Mesozoic sediments consisting of sands and shales. These sediments quite often are penetrated by diapirs of gypsum. The host gypsum is believed to be Permo-Penn in age.

The first well to be drilled in the Arctic Islands was in 1962 by Dome Petroleum to a depth of 12,543 feet. As of February, 1971, only ten wells have been drilled in this vast remote area. Two wells encountered gas causing blowouts lasting several months during 1970. Both wells, one on Melville Island and the other on King Christian Island, encountered gas in the Triassic. These two wells, as well as three others, were drilled by Panartic. Several other wells are to be drilled soon and major gas and oil fields are likely to be developed in this area.

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