of Devonian age. There are limestone zones in the lower part of the Devonian that are extremely porous where they crop out north and south of the Moose Mountain area; but the pore spaces were found to be filled with calcite in beds that were stratigraphically equivalent to these zones where they were encountered, structurally high, in the McColl-Frontenac Oil Company's test on the Moose Mountain anticline.

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PAUL TAPP
Technique of Testing Large Cores of Oil Sand

Testing samples of oil sands for determining productivity of oil wells and estimating reserves has been described and discussed by many authors. Most articles suggest the use of small samples, $2\frac{1}{2}$ cm. in diameter. Since texture, porosity, and permeability of some rocks, particularly limestones, varies greatly in short distances, very large numbers of small samples are needed to determine even an approximate average permeability and porosity. This paper describes and illustrates apparatus, methods, and techniques for determining permeability, porosity, and fluid content of large slices of rock cores obtained from core drills from 20 to 100 times the size of the ordinary samples. A discussion is presented also of the feasibility and advantages of using large core samples and the effect of several factors such as minute quantities of connate water, presence of traces of emulsions, and presence of certain colloids on results of fluid-flow measurements in large core samples.

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Caddell Eocene Operculinoides (By permission of Phillips Petroleum Company)
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18. E. B. BRANSON, University of Missouri, Columbia, Missouri