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Preliminary Statement.

OIL SHALES OF MANITOBA AND SASKATCHEWAN.

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(Note: During the field season of 1921, Cretaceous shales of Pasquia Hills, Porcupine, Duck, and Riding Mountains, were examined, and representative samples secured. A complete report embodying the results of this work is in course of preparation.)

During recent years attention has been directed to reported occurrences of oil shales of Cretaceous age in the provinces of Manitoba and Saskatchewan. Forty-one samples of the shales, representative of a wide area, were collected during the field season of 1921, and were subsequently tested in the laboratory. Of these samples, twenty-two were secured on the northern branch of the Pas river, Man river, Cracking river, Papikwan river, Jordan river, and Carrot river, in the province of Saskatchewan, and nineteen samples from Steeprock river, Birch river, Favel river (east and west branches), Sinclair river, North Duck river, Solater river, North Pine river, Vermilion river, and Ochre river, in the province of Manitoba. The maximum yield of crude petroleum from any sample was 10.9 Imperial gallons (13.8 U.S. Gallons), while the maximum yield of ammonium sulphate was equivalent to 3 pounds per ton of shale. The specific gravity of the crude petroleum varies from .944 to .934. All shales examined carry a high percentage of water, the average content of 15 samples being equivalent to 15.4 Imperial gallons (18.5 U.S. gallons) per ton.

It appears, therefore, that shales examined in the provinces of Manitoba and Saskatchewan are of little present economic importance as a possible source of petroleum, or of ammonium sulphate. Should conditions at any time warrant commercial development, open cut mining could be undertaken in many areas under favourable conditions. Over very considerable areas, shales examined are covered by a comparatively light overburden, consisting chiefly of boulder clays and gravel, which could be readily removed by hydraulic methods.