

NATURAL RESOURCES OF THE DOMINION OF CANADA.

the Onondaga district in Brant county. In Albert county, New Brunswick, about eleven miles from Moncton, and in the adjoining part of Westmorland county, there is an extensive gas field. There are already a number of gas-producing wells, and new wells are being drilled. The city of Moncton is supplied with gas for light and power from these wells. Petroleum is also being pumped in this locality in small quantities. There are extensive beds of oil-bearing shales in both Albert and Westmorland counties, and it is proposed to establish a plant for the extraction of oil from these shales. It is believed that a plant having a capacity of treating 2,000 tons of shale per day will yield approximately 80,000 gallons of oil daily. The oil is of good quality. Natural gas has been discovered in St. Hyacinthe county, Quebec, about eight miles from the city of St. Hyacinthe and thirty-five miles from Montreal, and several wells have been drilled with promising results. There are indications of gas in many other parts of the St. Lawrence valley, but whether it exists in large quantities or not is as yet uncertain.

In a district extending on both sides of the lower Athabaska river there are immense deposits of sand saturated with tar, which are supposed to have been produced by petroleum welling up from the underlying limestones. Dr. Robert Bell, of the Canadian Geological Survey, says: "At a temperature of sixty degrees F. the mass is sufficiently plastic to bend considerably before breaking. When cut with a knife the shavings or chips curl up like those of hard soap. When worked in the hand it becomes softened and may be moulded like putty and is quite brittle. In a fire of wood it soon ignites, burning for some time with a smoky flame and then falling to powder." Mr. Wyatt Malcolm, reporting to the Geological Survey, says of these tar sands: "The supply is almost inexhaustible. The beds vary in thickness from 140 to 220 feet, and although they have not been fully explored it has been estimated that they have a distribution of at least 1,000 square miles." Mr. R. G. McConnell, in a report to the Geological Survey, after describing these tar sands as of enormous extent, says: "The commercial value of the tar sands themselves as exposed at the surface is at present uncertain, but the abundance of the material and the high percentage of bitumen which it contains make it probable that it may in future be utilized for various purposes. Among the uses to which it is adapted may be mentioned roofing, paving, insulating electric wires; and it might also be mixed with lignite which occurs in the neighbourhood, and pressed into briquettes for fuel." The late Dr. R. W. Ells, in a report to the Geological Survey, and other authorities have expressed the opinion that oil could be recovered from the tar sands by distillation. However, the wide interest that has been taken in these famous tar sands has been due to the belief that there must be immense quantities of petroleum somewhere beneath them, but whether these expectations will be realized or not remains to be seen. Several wells have been drilled without results.

There are petroleum springs at several points in Great Slave lake, near the shore. The oil comes up to the surface of the water. At various points along the Peace river there are indications of oil. Geologists say the the prospects of finding large quantities of oil in northern Alberta are very good. In the Pincher creek district in southern Alberta, southwest of the town of Macleod, oil has been struck in several