ECONOMIC MINERALS OF ONTARIO, CANADA.

 $1\frac{1}{2}$ by $2\frac{1}{2}$ inches, the smaller sizes being much the most numerous. It is a somewhat strange coincidence that 23 per cent. is the exact yield of a well-known Indian mine.

Graphite.

Graphite or plumbago is not at present mined in the province, but a deposit in eastern Ontario was worked somewhat extensively many years ago.

The plumbago is found in the Laurentian formation, occurring, where worked, in thickly disseminated scales in a sandy, calcareous and quartzose rock (gneissic in structure), which in some places graduates into an impure limestone. Large amounts of this graphite-rock are obtainable at a low cost, but the presence of the lime probably accounts for its now being unworked. The rock was stamped in a 10 stamp mill, and the plumbago washed out on 3 revolving buddles. The resulting powder was dried and bolted.

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Natural Gas.

Natural gas has been found in important quantities in two places in Ontario, both on the northern shore of Lake Erie. The first place, where it was found by boring, was at the extreme western tongue of the peninsula of Ontario. Here it was found in the Clinton formation, and the flow occurred from a vesicular limestone. It is well established that one of the principal reservoirs of the grs is in spaces which have been caused by dolomitization of limestone. However, the cause which led to the search for gas at this place, was because it was in the line of the continuation of the great anticlinal of Ohio, which had been proved to be such a wonderful reservoir for gas in that state. The flow when first struck went as high, in different holes, as from 2 to 10 millions of cubic feet of gas per day, with a pressure of 400 lbs. per square inch. The holes are bored about 1,000 feet deep in this gas-field.

The second place, where large quantities of gas were found, was at the eastern end of the southern part of the peninsula of Ontario, no great distance from where the Niagara river flows out of Lake Eric. In this district, the gas was found also in the Clinton rocks, but the main supply is derived from still lower down, from the Medina shales and sandstones. Here the pressure amounted to 500 and 560 lbs. per square inch, and the yield reached from 2 to 8 millions, and upwards, of cubic feet of gas per day. The depth of the holes are, to reach the Clinton about 680 feet, and the Medina formation about 750 feet, and this latter is penetrated generally to some 850 feet.