

The Wabana ore has a high phosphorus content and is not acceptable to most furnace operators on this Continent. At Sydney special means are employed to cope with the phosphorus. Wabana ore is shipped in substantial quantities to the United Kingdom and Germany, where a steel-making process is in use that removes the phosphorus and employs it as phosphate fertilizer.

The shipments in long tons from these three sources were 686,000 from Steep Rock, 535,000 from the Helen Mine and 1,704,000 from Wabana. While these three producing iron-ore mines do not yet meet fully the tonnage required by the Canadian furnaces, the present expansion of the two mines in Ontario promises to do so shortly. The chemical characteristics of the three ores are as follows:—

<u>Item</u>	<u>Steep Rock</u>	<u>Helen Sinter</u>	<u>Wabana</u>
	p.c.	p.c.	p.c.
Iron (natural).....	51.5	50.28 <sup>1</sup>	52.5
Phosphorus.....	0.028	0.017	0.8
Sulphur.....	0.041	0.089	--
Manganese.....	0.19	2.95	--
Silica.....	7.53	11.5	12.0
Moisture.....	10.17	1.75	--

<sup>1</sup> 53 p.c. iron plus manganese.

### The Labrador Field

For more than fifty years it has been known that a belt of iron-bearing rocks traverses the interior of the Labrador peninsula in a northwest-southeast direction. A substantial part of the iron-bearing rock series consists of a rock formation similar to that of the Mesabi Range in Minnesota. This offered an attraction to prospectors but, until transportation by aircraft was available, it was virtually impossible in this remote region to conduct the detailed prospecting necessary to locate the actual deposits of ore. The first body of iron ore was found in 1929. Since then 25 commercial orebodies have been discovered and drilled.

This iron-ore region is in the central part of the Labrador peninsula (see map p. 508) astride the Labrador-Quebec boundary, and has been developed to the point where its exploitation seems feasible. The deposits are large and of good grade, and the conditions favour low-cost open-pit mining during about six months of the year. A railway location with good grades has been made and a port on the Gulf of St. Lawrence has been chosen. Consideration is being given to equipping the property for an initial output of 10,000,000 tons a year. Tests have shown that the ore is easily reducible and it has other desirable characteristics that make it comparable to the ore of the well-known Mesabi Range in Minnesota. The proven extent of the field puts it among the great iron-ore fields of the world, and its full extent is not yet known.

**Mining Concessions.**—All the orebodies discovered so far are on two mining concessions held by subsidiaries of Hollinger Consolidated Gold Mines, Limited. The M. A. Hanna Company of Cleveland has a minority interest in both subsidiaries. The concession of Labrador Mining and Exploration Company, Limited, contains 20,000 square miles. On the Quebec side of the border, the Hollinger North Shore Exploration Company, Limited, holds 3,900 square miles. The two concessions cover the iron formation for a length of 225 miles. From each of the concessions a limited area must be selected for retention within a few years.