

## PRELIMINARY.

Shortly after the passing of the Act Mr. G. A. Pascoe, who was appointed as Acting-Commissioner (following the principle that was adopted in the establishment of the Department), was instructed to proceed to London for the purpose of completing negotiations that had been commenced with the firm of H. A. Brassert and Co., Ltd. This firm had previously examined the question of establishing the steel industry in New Zealand, and in 1937 had made a report to the Government. The Government, through the High Commissioner, also notified the British Iron and Steel Federation of its intention to establish the industry. The Federation was advised that the New Zealand Government desired to co-operate with the United Kingdom industry, and requested the latter's co-operation. Mr. Pascoe had many discussions with members of the Federation, which body expressed its appreciation of the New Zealand Government's action in advising it of the proposals. As a result of those discussions the British steel industry, through the Federation, gave an undertaking of continuing co-operation with the New Zealand Government in the latter's project.

## TESTING OF ORE-BODIES.

During the year under review the activities of the Department have been confined mainly to the necessary preliminary work of proving the quantity and quality of the raw materials available, particular concentration having been given to the ore-bodies in the Golden Bay area. Up to the time of the passing of the Iron and Steel Industry Act it appears very little confirmatory work in regard to the availability of raw materials had been undertaken, although rights over the ore-bodies had been privately held for more than a quarter of a century. The practice in the past had been apparently to accept at their face value such estimates of quantity as had been made mainly from surface indications. The work carried out by the Department during the year under review strongly exemplifies the weakness of this method of procedure. The quantities of ore reserves claimed by the previous leaseholders have been found in some cases to be more than 75 per cent. overstated. Because there had been no serious attempt to carry out underground investigations into the extent of the ore-bodies much of the orefield was still almost inaccessible, due to heavy bush. No contour surveys had been carried out on a workable scale, and access tracks had to be constructed. During the year the complete area carrying the ore-bodies has been opened up. It has been surveyed, and an average of eighty men have been provided with constant employment during the period under review. Some idea of the extent of the work undertaken may be gathered from the following: Contour tracks and other access roads totalling 15½ miles have been constructed; 10,000 ft. of underground tunnels have been driven; 4,000 ft. of drilling has been carried out. More than a thousand samples have been analysed by the Dominion Laboratory. The orefield has been divided into six blocks, and the amount and quality of the ore in the various blocks now reliably estimated is as follows:—

## ESTIMATE OF IRON-ORE RESERVES.

Area.	Average Iron Content.	Assured Ore.	Probable Ore.
	Per Cent.	Tons.	Tons.
Rinonui .. .. .	48·0	6,079,000	1,500,000
Rinopai .. .. .	42·5	1,000,000	..
Onekaka North .. .. .	34·0	1,100,000	100,000
Onekaka Centre .. .. .	34·5	590,000	Not
Onekaka South .. .. .	33·6	3,300,000	sufficient data
Tukurua .. .. .	37·0	1,000,000	available.
Iron-ore .. .. .	42·0	13,069,000	1,600,000

The work to date, having established that ore-reserves used in conjunction with that proportion of ironsand stated by our consultants to be within practical limits, ensures a supply of raw material sufficient to meet our projected demand for a period of approximately seventy years. Further development work, but mainly by the method of drilling, will still be carried out to complete the survey of the field. The cost of exploratory work is only a fraction of 1d. per ton of ore proved, a result which reflects credit on those responsible.

## TARANAKI IRONSANDS.

With like thoroughness to the investigation that has been carried out in connection with the ore-bodies in Golden Bay, a survey of the available ironsands in the vicinity of Patea has been carried out during the year. Systematic drilling and testing has been undertaken, and it has been definitely established that ironsand in the proportion required for the steel-manufacture at Onekaka is available on the Patea Beach sufficient to meet the requirements of the blast furnace for very many years.

## VISIT OF H. A. BRASSERT'S EXPERTS.

About the end of the first quarter of the present year a visit to the Dominion of representatives of H. A. Brassert and Co., Ltd., was arranged. The delegation comprised one of Brassert's directors, Dr. T. P. Colclough, who has special knowledge of every phase of steelmaking, and also on the