

Table showing the Quantity of Quartz crushed and Scheelite Concentrate obtained for the Year ended 31st December, 1917.

Name of Company or Claimholder.	Locality of Mining Operations.	Quartz crushed.	Scheelite Concentrates obtained.	Value.	
		Tons.	Tons. cwt. qr. lb.	£	s. d.
<i>Otago and Southland—</i>					
Golden Point Gold and Scheelite Company	Macrae's, Waihem o County	643	15 4 2 15	2,837	7 3
Deep Dell Consolidated Gold and Scheelite Company	Ditto	17	2 18 1 25	541	14 8
William B. McGregor .. ..	.. ..	7	2 3 1 7	409	17 8
Andrew Phelan .. ..	.. ..	..	1 6 0 24	261	18 2
F. A. Smith .. ..	.. ..	7	1 0 2 1	196	5 2
Fraser and Gaytan .. ..	.. ..	20	4 13 3 7	923	4 0
Philip Donoghue .. ..	.. ..	..	0 7 2 5	78	3 9
Patrick Donoghue .. ..	.. ..	..	0 4 3 16	46	17 9
Cockerell and Innes .. ..	.. ..	22	2 9 0 24	486	7 3
Donaldson Bros. and Ellis .. ..	.. ..	10	2 2 2 27	418	2 11
A. A. Cockerell .. ..	.. ..	5	1 1 3 23	143	18 7
Stoneburn Mining Company	Stoneburn, Waihem o County	1,078	3 2 3 22	541	14 2
William Gregg and party	Ditto	194	1 0 1 26	125	10 9
Mareburn Mining Company	Hyde, Taieri County..	3,196	7 15 2 26	1,443	11 7
H. S. Molineaux	The Reefs, Taieri County	150	2 14 1 25	479	3 6
A. C. Buckland	Ditto	2	0 4 2 24	44	8 6
Pukerangi Mining Company	Pukerangi, Taieri County	70	1 10 1 14	286	8 0
G. Bertenshaw	Waipori, Tuapeka County	..	1 14 0 18	338	12 9
George Scurr	Glenorchy, Lake County	..	1 0 3 18	174	19 9
Paulin and Tripp	Ditto	60	20 9 1 4	4,050	2 0
H. Birley and party .. ..	.. ..	..	5 10 0 4	970	8 5
Thomas Scurr .. ..	.. ..	..	2 12 0 19	414	0 6
Grant and Sinclair .. ..	.. ..	..	0 12 2 10	114	13 6
Huntly Groves .. ..	.. ..	..	0 10 2 9	104	10 11
Glenorchy Scheelite Company .. ..	.. ..	1,107	85 6 3 10	16,924	1 0
		6,588	167 18 2 11	32,356	2 6
<i>Marlborough—</i>					
Dominion Consolidated Company	Wakamarina	13,067	28 0 0 0	5,005	0 0
J. M. Cadigan .. ..	.. ..	Tailings	3 10 0 0	502	0 0
Totals .. ..	.. ..	19,655	199 8 2 11	37,863	2 6

Several of the above mines produced a certain amount of gold in addition.

Reports on the quartz-scheelite mines by the District Inspectors of Mines are contained in Annexure A accompanying this report.

IRON.

Near the Breakwater, New Plymouth, the New Zealand Iron-ore Smelting Company (Limited), which was formed for working the beach ironsand, commenced smelting during the latter part of 1917, but the results not then being entirely satisfactory operations were suspended to enable alterations to be made to the plant. During September of the present year smelting was resumed, and an improved pig iron was obtained in grades varying from grey to white. The process of manufacture adopted is that of Messrs. J. Heskett and Fraser, and the recent operations were carried out under the direction of Mr. V. W. Aubel, A.I.M.E. The following is a brief description of the process of manufacture:—

The ironsand from the beach is dried and magnetically concentrated. It is then mixed with 10 per cent. of its weight of coking-coal, and the mixture is ground in a Fuller mill. From this mill the mixture is elevated to an eggette machine, which turns out eggettes without any binder being added. These eggettes are gently roasted in a small vertical oven. It is considered important not to heat too strongly at this stage. The furnace-charge consists of 2,000 lb. eggettes (with a considerable proportion of fines) containing 50 per cent. of iron, 2,000 lb. Westport coke, 700 lb. limestone (from Napier), and 300 lb. road-metal (andesite). When the furnace is working well this charge is given every hour or less, and takes about fifteen hours to go through. The hotblast has a temperature of