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8. SCHEELITE AND WOLFRAM (TUNGSTEN ORES) IN NEW ZEALAND.

(By P. G. MORGAN.)

Scheelite occurs at Saddle Hill, near Dunedin; Stony Creek and other localities near Waiopori; Carrick Range; Bendigo (Cromwell District); in the gravels of many streams in the Lake Wakatipu district, and in lodes near Glenorchy; in the Buckleburn Valley, at Mount McIntosh, &c.; at Mount Highlay, near Hyde; in the Macraes district; at Stoneburn, and various other localities in Otago; in the Jubilee Mine lode, Top Valley (Marlborough); in the Wakamarina district (Dounion Mine, &c.); and in the gravels of the Buller River at Newton Flat, Inangahua Junction, &c. It is also reported from the Mount Radiant district.

All the known New Zealand occurrences of scheelite *in situ* are in connection with more or less auriferous quartz lodes in mica-schist country. In other parts of the world tungsten minerals are generally found in granite. The mineral is found either as rich bunches or thinly disseminated through the quartz. In the former case it may be obtained by hand-picking the broken ores, whilst in the latter case fine crushing and treatment by some form of concentrating machinery is necessary.

Wolfram occurs in tin-bearing gravels, Stewart Island, and in a quartz lode, Mount Mantell (Murchison district). It is also reported from the Mount Arthur district, from the gravels of the Westport district, and from Mount Rangitoto (North Westland). In several of these localities there is a possibility of prospecting revealing workable deposits.

The principal scheelite-producing district in New Zealand for a number of years was Macraes, but at the present time comparatively little scheelite-mining is being done in that locality. From observations made during visits in 1909 and 1914, I think that an increase in the price of scheelite will lead to renewed activity in the Macraes and the adjoining Mount Highlay districts, followed by increased production. For several years there has been a considerable production in the Glenorchy district. From the Inspector of Mines' report made in 1913 it would appear that there is a large area of scheelite-bearing country, and that the industry