

capable of dealing with 1,100 gallons per minute, from a depth of 1,000 ft. Pending the erection of this plant, mining operations have been suspended.

Thames Goldfield.—The known rich bonanza ore having been entirely exhausted at the Waiotahi Mine, underground operations have been chiefly confined to stoping ore of lower grade. A considerable amount of prospecting has been carried out during the year on the Mariner vein at No. 6 level (500 ft.) and the No. 4 level in the direction of the main reef. No practical scheme has yet been agreed upon by the companies that would be benefited by deep-level developments from the Queen of Beauty pumping-shaft, now sunk to the 1,020 ft. level by the May Queen Company, assisted by a Government subsidy. This company has obtained favourable prospects at the No. 5 level (627 ft.) and No. 6 level (720 ft.) of the May Queen Mine, and at the No. 9 level (800 ft.) a crosscut driven 400 ft. from the pumping-shaft intersected the May Queen footwall leader, showing good prospects. This constitutes the deepest prospecting on the Thames Goldfield, and it is regarded locally as favourable evidence of the continuity of the payable veins at depth.

On the Coromandel Goldfield, mining is moribund.

West Coast Inspection District.

Inangahua Goldfield.—There has been a considerable falling-off in the annual production of the Reefton district during the past year, but from the Big River and Blackwater divisions of the goldfield an increase has to be recorded. The future of the West Coast quartz-mining fields is dependent upon the deeper levels of active or abandoned properties, and on the discovery of fresh veins on areas hitherto unprospected. The prospects of sinking deeper the present working mines are considered favourable, and this is being undertaken, the ore-values not having very appreciably declined with the attainment of depth, nor is there any probability of the ore becoming refractory. The result of operations at the Welcome and Golden Fleece Mines, however, indicates that all over the field a level will be reached, probably not many hundred feet below the present deepest workings, where the ore-bodies will be found too small to be profitable; but this limit can only be determined by trial in each particular case. The areas hitherto unprospected embrace an extensive belt of phyllite and greywacke formation extending both north and south of the Inangahua Goldfield, an area but little prospected owing to difficulty of access and the rugged and heavily timbered nature of the country. Accompanying this report are plans of the Reefton section of the Inangahua Goldfield showing the vein-system and principal workings, which have been specially prepared for the Mines Department by Mr. Jules Schadick, C.E., licensed surveyor. These plans contain information never previously published, and they will no doubt be of considerable assistance to those interested in the Reefton mines.

The Keep-it-Dark Quartz-mining Company (Limited): This well-known old mine, which has been held and worked continuously since 1873 by the present company, is situated about half a mile to the south of the Wealth of Nations Mine, and the vein operated upon at both mines is similar in size and general features. The deepest level opened—viz., that at 1,100 ft.—is 245 ft. below sea-level. The ore-bodies vary in width between 2 ft. and 12 ft. Water-power is employed to work the mill and reduction plant. During the past year there has been a slight decline in the gold-production and dividends paid from this property. Development has been carried out on the No. 5 and No. 7 levels.

The Progress Mines of New Zealand (Limited) are situated about four miles from Reefton. The vein, which is worked by shafts respectively 836 ft. and 1,436 ft. deep, strikes approximately east-and-west, and comprises three large quartz-bodies varying in width between 4 ft. and 20 ft. During the year 1908, developments have been carried out upon levels Nos. 10 and 11; and a diamond drill has been used for prospecting. On the upper levels, between No. 6 and No. 12, stoping has been carried out, but ore of lower grade than formerly has been obtained. A furnace is being erected for the treatment of concentrates.

Consolidated Goldfields of New Zealand (Limited):—Golden Fleece Mine: The vein on this property lies parallel to and about a mile to the east of the Wealth of Nations and Keep-it-Dark line of vein, which although practically vertical near the surface is dipping to the westward in the lower levels. During the year, owing to developments at the No. 15 level not fulfilling expectations, this mine was let on tribute. Wealth of Nations Mine: On this property there are two parallel and nearly vertical veins, situated about 150 ft. apart. The development of these two veins by means of shaft-sinking has disclosed a good deal of faulting. Only the larger eastern vein, the width of whose blocks averages about 6 ft. to 8 ft., is at present being worked, while crosscuts are being driven with a view to proving the western vein at greater depth. The main shaft is 1,700 ft. deep, being the deepest shaft in the Dominion. It is proposed to continue this shaft to the 11th level. During the past year developments have been chiefly concentrated at the 7th, 8th, and 9th levels, the quartz milled being obtained from stopes over the Nos. 7 and 8 levels. The reduction plant has been remodelled, and the Waihi system of treatment by tube mills, tall agitator-tanks, and the vacuum-filter process is being installed; water-power will be employed to operate this plant.

The New Big River Gold-mining Company (Limited): This mine lies about twenty miles to the south of Reefton, and is one of the youngest mines in the district. During the year operations have been attended with satisfactory results. The vein recently intersected on the No. 9 (1,372 ft.) level varies in thickness up to 12 ft., and it is payable throughout the 160 ft. driven upon it. The main shaft is 1,200 ft. in depth, and it is proposed to deepen it 200 ft. to another level.

On the Lyell Goldfield there has been a revival of operations at the once well-known New Alpine Mine. The main shaft has been sunk 112 ft., and from it the new 14th level has been driven 226 ft. During the year 1,150 tons of ore were treated for a return of £866.

The Blackwater Mine, one of the Consolidated Goldfields group, is situated in the Upper Blackwater district on the hills to the eastward of the Greymouth-Reefton Railway, a few miles to the south of the Big River Mine. During the year this mine commenced operations. Considerable geological similarity exists between the Blackwater and Reefton Goldfields, both as regards geological age, vein-