

*Ready Bullion Mine.*—The crosscut east from the low-level adit was extended a further 125 ft., to 200 ft. Small leaders were encountered at 100 ft., 143 ft., and 175 ft. respectively, in this crosscut, but they were not found to carry any values of a payable nature. Towards the end of the year mainly, I understand, owing to financial difficulties operations came to a standstill.

*Big River Extended Mine.*—A little further work was done in an adit driven on one of the outcropping reefs, but the results obtained were not satisfactory.

*Big River South Mine.*—No work was done on this property during the year.

*Progress Mine.*—The only work carried out on the property consisted of the retreatment of some residues at the crushing plant, from which 577 oz. of gold, valued at £1,904, were recovered.

*Wealth of Nations Mine.*—After being idle, as far as underground work is concerned, for a long period, a start was made again in the last half of the year to reopen this property by a new company which had acquired it from the Consolidated Goldfields of New Zealand (Limited). The principal work done so far has been the repairing of Nos. 6, 10, 11, and 12 levels, for the purpose of restoring ventilation. The result of this work has served to show that the old air-course is in much better condition than might have been expected after the mine being idle so long. A start was also made to sink the main (Energetic) shaft another lift of 150 ft., with a view to opening out a further level. To the end of December, 15 ft. of new shaft was sunk. Towards the sinking of this lift and the opening out of a new level (No. 13), the Mines Department is assisting, on a pound-for-pound basis, to the extent of £2,625.

*Scotia Mine.*—Nothing in the way of mining-work was done during the year, but early in the New Year, I understand, it is the intention of the present holders to push forward the formation of a syndicate to provide funds for further testing of the property.

*Alexander River Reefs.*—The option taken over this property by the Recovery Gold-mines Syndicate was not availed of, but the discoverers of the reef, Messrs. McVicar and Hurley, have vigorously prosecuted prospecting operations. In No. 1 adit, the country having been found to be badly crushed, a new adit (No. 2) was opened out, about 130 ft. lower than No. 1, and in this upwards of 600 ft. of driving and crosscutting were done. At first it was thought that this No. 2 adit would prove to be in settled country, but the extension of the work served to show that the country was still too greatly disturbed to offer any probability of the downward continuation of the outcropping (Bull) reef being located in it. Assistance by way of subsidy is being given by the Mines Department for most of the work in this adit.

#### HOKITIKA AND ROSS DISTRICT.

The only two quartz-mines in this district—namely, the Mount Greenland and the Mount Greenland Extended—were both idle during the year.

At Donnelly's Creek, Mr. H. Osmer's was engaged, however, in putting in a crosscut, with the aid of subsidy, with a view to picking up, beyond the old workings, the two small reefs worked many years ago by the Donnelly's Creek Quartz-mining Company. He has succeeded in intersecting one of them, which was found to carry fair gold-values, but was very small, being only about 6 in. in width. The second reef, when intersected, should prove much wider than the first one.

#### STILLWATER DISTRICT.

*Victory Mine.*—No actual development work was carried out, but some diamond-drilling was done over the back of the bottom level. At about 71 ft. up the drill passed through 3 ft. of reef, an assay from which is said to have yielded gold equal to 19 dwt. 17 gr. per ton. The point at which the drill intersected this reef was calculated to be about 25 ft. below Messrs. Curtis's old workings. This discovery was made in August, but nothing has been done since by way of active mining with a view to developing the reef located. The delay is due to the necessity of the syndicate owning the mine to raise further capital.

#### GENERAL REMARKS.

Although very little has been done by the quartz-mines in the way of paying dividends, and the mines generally have been still severely hampered in their operations by the high cost of labour and of mining supplies, as well as having to submit to a marked shrinkage in gross revenue by reason of the gradual disappearance of the premiums formerly received on gold disposed of, there has been an all-round improvement, as compared with last year, in the quantity of stone crushed, the amount of gold recovered, the value received for the gold, and (to a slight extent only) in the number of men employed. The increase in tonnage crushed amounted to 7,190 tons, that of gold won to 4,670 oz., while that in value received was £2,261. The loss of premium was greatly felt. Only £2,400 was paid in dividends, as against £4,200 in 1921.

I am pleased to have to report that no accidents of any kind calling for report occurred in any of the mines of the district during the period under review.

A considerable amount of prospecting for reefs was carried out, particularly under the auspices of the Inangahua Prospecting Association, but although many reefs were reported to have been located none were found to contain payable values.

During the year five informations were laid against various parties for breaches of the sections of the Act dealing with Sunday working. In two cases convictions were recorded and small fines imposed. In the other three cases convictions were recorded without fines. A miner at Blackwater Mine was also proceeded against for carrying explosives otherwise than in a proper receptacle, and was convicted and fined.

#### Dredges.

This branch of the mining industry in the district has shown a decided improvement, mainly owing to the successful operations of the large American-type dredge of the Rimu Dredging Company at Rimu Flat, Hokitika. During the year this dredge turned over 1,147,790 cubic yards of gravel for a return of 10,163 oz. 4 dwt. gold, valued at £44,801 14s. 5d. This return is equal to 9.36d. per cubic yard, which, I understand, is well up to the estimate of recoverable gold formed by the company prior to starting operations. The plant on the whole has been working very satisfactorily. The first line of buckets put on were somewhat on the light side, and gave a good deal of trouble through breakages, but since these have been replaced by buckets of a heavier type the proportion of dredging-time lost has been very small. The dredge completed its first cut, some 3,000 ft. in length, and is now working back towards its starting-point, taking a triple cut on the return trip to a total width of 400 ft. Having a free side to work to, it is now dealing with a much larger quantity of gravel than was possible on the original cut. At the finishing-point of the first cut the dredging reached a depth of 53 ft., 46 ft. of which was below water-level. As the bottom was barely cleaned at this depth, it is evident that from 53 ft. to 55 ft. may be considered as the limit to which the dredge will operate. In view of the success met with, it is now probable that the company will proceed at an early date with preparations for supplying an additional dredge to work its large area. Before any further dredge can be put to work it will be necessary, however, for the company to provide further electrical power, the present plant leaving no margin. The question of providing this additional power is now under consideration.

The Awatuna dredge, which was put into commission in March on a beach claim near the Awatuna Railway-station, recovered 992 oz. of gold, valued at £3,933. The working of the dredge was not, however, found to be profitable, and work ceased again before the end of the year. The lack of success appears to be due not so much to poverty of values in the ground as to the unsuitability of the plant for treating such material as heavy beach sand mixed with boulders. Had there been a screen on the dredge for the purpose of readily separating out the stones, leaving only the fine sand to pass through the boxes, it is probable a much greater degree of success would have been met with. As it was, a heavy body of water had to be used to remove them, and this militated against the saving of the extremely fine gold the sands contained. The owners of the dredge are now endeavouring to provide funds for the alteration of the dredge to meet their needs, and at the same time will consider the possibility of providing electrical power to work the plant in place of the present costly steam-power.