

only 30 ft. At the smithy level a crosscut was driven for 60 ft., but without anything of value being found. The country in the face of No. 1 level showing good indications, it has been decided to extend this north. In Gallant section the level from the main road has been repaired and retimbered throughout for 340 ft., leaving 90 ft. to complete to reach the line of reef. The road to the tip-head for a distance of 260 ft. has been renewed. In Scotia Creek a dam has been erected for conserving water for cyanide plant. The poppet-heads over main shaft and all other surface-works have been repaired preparatory to carrying on mining operations on the various lines of reef.

*Big River Company, Big River.*—During the year 243 tons of stone was won from the mine, which produced 167 oz. 17 dwt. of melted gold, of the value of £679 1s. 11d. Early last year prospecting-work was in progress in No. 6 level, and two crosscuts were being driven. In March, 1900, the reef was cut in one of these drives to the north of former workings. This block was about 20 ft. in length, and on the level the quality of the stone appeared to be equal to the usual average of the mine, but upon being stoped up it was found to be poorer. As the reef-track in No. 6 showed promisingly, the driving of the level to the north-west was continued, and 120 ft. driven, but nothing payable was found. A winze was sunk on the block mentioned to a depth of 30 ft., but the reef did not live down. Prospecting crosscuts were driven in this level to the westward. A large amount of work has been done on stone in No. 1 level, and in the intermediate level underneath. Recently, rising and stoping operations have been carried on on stone above No. 2 level; the reef was small, and at last got too broken to follow. At present the only work in progress in the mine is extending a crosscut in No. 6 level in a north easterly direction, at which six men are employed.

*No. 2 Big River Company, Big River.*—This property is situated to the west and adjoining the Big River Mine. Work was commenced in May last, and consisted of extending a level that was then driven 70 ft. for an additional 400 ft. The level is 140 ft. lower than the surface, and during its progress several promising leaders of quartz were cut, but nothing of any value or of a permanent character was disclosed. A large reef was then found on the surface to the east of the present drive, and which carried a little gold. A crosscut from the level is now in progress to endeavour to cut this reef at a lower level and ascertain its value there.

Mr. E. W. Spencer, engineer of the Progress Mines and Consolidated Goldfields of New Zealand, has supplied me with the following information concerning the claims under his charge:—

*Progress Mines.*—Development-work, comprising 3,011 ft. of driving and crosscutting and 913 ft. of sinking and rising, has resulted in the opening up of a large tonnage, so much so that the ore in reserve to-day exceeds that in sight at the corresponding period of last year by some 21,000 tons, besides which the mill has been supplied with nearly 55,000 tons. By mining and milling a greater tonnage than during 1899, it is satisfactory to note that the cost has been reduced considerably, every ton of quartz being mined, milled, and treated for 1s. 9-696d. less than during the preceding year. Developments were carried on in a general manner all over the eastern side of the mine on levels Nos. 1, 2, 3, 7, 8, 9, and 10, besides which the shaft has been sunk from No. 9 to No. 10, a vertical distance of 150 ft., and an excavation made for the sump. The total distance sunk was 187 ft., the present depth of shaft being 1,286 ft. The transportation by aerial line has given very little trouble since the lock-coil ropes were put in on the loaded side. Several sections on the return side have been renewed with portions of the original rope, and everything is in a good state of preservation. The cost of transportation has been reduced to 4-556d. per ton milled. 54,189 tons of quartz has been milled during the period under review, yielding 19,941 oz. 5 dwt. 19 gr. bullion, valued at £82,553 9s. 5d.; and 909 tons of concentrates were produced, some of which were chlorinated, the remainder being shipped to New South Wales for smelting, the reason for this being the refractory nature of the concentrates. Before shipping, the material is all roasted, by which process a reduction of about 45 per cent. is made in weight, which lessens freight charges very considerably, also the treatment-charges at the other end. In the cyanide plant 6,049 tons of old accumulated tailings have been treated, yielding 606 oz. 7 dwt. 1 gr., valued at £1,729 6s. 2d. The percentage extraction has not come up to expectations, and greater trouble has been experienced with the refractory matter than was anticipated by the result of earlier experiments. However, by varying the process slightly, the company still look for better results from this source. The cost per ton treated is also slightly in excess of the original estimate, being practically 4s. per ton, of which cyanide accounts for 2s. At an early date it is hoped to start prospecting the eastern ground, in the neighbourhood of the old Globe shaft, from the surface down. To do this it will be necessary to instal a hoist, which is now lying idle, at the old Globe shaft. The ground out in this direction looks very favourable, and appears to offer every inducement for prospecting operations, having some well-defined outcrops on surface on which but little work has been done. The County Council are now regrading and widening the county track into a 10 ft. dray-road; as soon as this is complete, work will be commenced in earnest at this shaft.

*Welcome Company.*—Attention has been confined to making the connection between No. 5 level, Welcome, and the low level, Specimen Hill, from which we drove back a total distance of 1,153 ft. south; then crosscut 120 ft. west to get under the winze, when by rising vertically the connection was made. All attempts, so far, to trace the stone down to the low level have proved futile, and now nothing remains to be done but pull out the stone.

*Just-in-Time Shaft.*—After doing a considerable amount of exploratory work down on the 400 ft. level it was decided to cease work, as the prospects were not encouraging. The mine has since been let on tribute to a party of seven men, who repaired the old Reform level for nearly 900 ft., and did a considerable amount of work on other drives, and then abandoned it. The shaft is again full of water.