No. 4 shaft is being sunk. The old south-east crosscut is now in a distance of 515 ft. beyond the Empire lode. From No. 1 shaft the south-east crosscut at No. 4 level has been driven a distance of 580 ft. The lode in the stopes on the Welcome lode west of No. 2 shaft varies from 13 ft. to 23 ft. in width, and on the east of the shaft it is from 2 ft. to 12 ft. The lode in the stopes on the Victoria is from 3 ft. to 4 ft.; and in the stopes in No. 1 shaft section the Martha lode is from 13 ft. to 22 ft. wide, and also in No. 2 shaft section the same lode is 17 ft. wide in the stopes. No. 3 level south-west crosscut from No. 2 shaft is in 330 ft.; several small leaders are cut in this crosscut, but the level has yet to be extended a further distance of 20 ft. to reach the Empire lode. The No. 3 level on the Regina lode has been widened and timbered for a distance of 230 ft., the lode in this section being from 2 in. to 10 ft. wide. The No. 2 level on the Regina lode from No. 1 crosscut has been driven a distance of 58 ft. west; the lode in places has been broken up, but in the face of the drive it is 3 ft. wide, and the ore is of good quality. The south-east crosscut from the Martha lode near Hogan's Pass is in 133 ft.; at 111 ft. a 12 in. leader was cut through, which corresponds with the place where the Surprise lode should be. Very little work has been carried on on the Welcome lode in this section for some time past; the lode is 16 ft. wide. The Victoria lode is 8 ft. wide in the stope in this section. The filling-in shaft is down 280 ft., and a few feet more will reach No. 2 level; the country has been rather tight of late, and in consequence progress has been slow. No. 2 shaft has now been sunk to a depth of 529 ft. from the surface, but work here has been suspended until No. 5 chamber has been opened out 90 ft. below No. 4 level. The company's mills, which consist of 190 head of stamps, have been continuously worked, and 100 head of stamps is in the course of erection, and will be completed in about four months' time. The former stamps are crushing the ore dry, but the latter will crush the ore by the wet process, and should the wet process be a success the other stamps will no doubt be altered, which will be a great boon to the men employed about the company's plant. 112,501 tons of quartz was treated during the year for the magnificent return of 295,308 oz. of bullion, valued at £316,408 2s. 8d. There are also 3,845 tons of mineralised ore of good value put aside. This has been obtained from the different reefs during developments in the mine. This ore could not be successfully treated under the present mode of treatment, but will be dealt with as soon as the wet-crushing plant in progress is completed. During the year an average of 740 men has been employed in the mine and battery.

Waihi Grand Junction Gold-mining Company (Limited).—Early in the year 1899 this company cut into a reef at their 500 ft. level, from which such a large body of water came that their steam-pumps were unable to cope with it, and the water rose in the winding-shaft a distance of 200 ft. The mine was then closed down pending the arrival of a Cornish-pump equipment. Since recommencing work, which started in June, 1899, the operations carried out are as follows: At the Grand Junction end of the property it was decided to sink a pump-shaft on the end of No. 1 or winding shaft, and to install a Cornish pump to drain the mine. With this end in view a start was made early in September to sink the new shaft. The size of the new pump-shaft is 12 ft. long by 8 ft. wide in the clear, and timbered throughout with 12 in. by 12 in. kauri, with a bearer set of 24 in. by 24 in., and 36 in. by 12 in. every 50 ft. This makes a substantial pump-shaft, being roomy and safe, and will be suitable for working at a depth of 1,500 ft. if necessary. At the end of March this shaft was down 326 ft., leaving 174 ft. to be sunk to reach the present No. 2 level. It is the intention of the company, when the mine is drained, to push forward the drives at this level, and also to continue sinking to the 750 ft. level, where there will no doubt be a fair prospect of striking rich ore. While the shaft for the pumping plant was being sunk a gang of workmen were engaged in preparing the foundations for the new pumping machinery. These foundations are very massive, containing as they do nearly 900 tons of concrete. In putting in these foundations the opportunity was taken to put in foundations for a duplicate of the present engine and pump, so that little time would be required to double the capacity of the pump. They would then be in a position to pump 80,000 gallons of water per hour. The pump is a 16 in. by 10 ft. stroke (Cornish), with plunger and bucket sets complete, and is capable of lifting 40,000 gallons of water per hour from a depth of 1,000 ft., with cisterns and plungers 250 ft. apart. The engine to drive this is a 300-horse-power compound tandem surface-condensing, with compound gear, all gear-wheels having helical teeth. The high-pressure cylinder is 18 in. in diameter, and the low-pressure 32 in., both having a 36 in. stroke. The air-pump is driven by a quadrant from the tail of the piston-rod. The engine is governed by a Porter's governor, which actuates an automatic expansion-valve. The steam for this engine is obtained from two of Hornsby's 300-horse-power water-tube boilers, fitted with low-water and high-steam safety-valves. The feed-water is passed through a Green's economizer of ninety-six tubes. These are placed so that the furnace-gases after leaving the boilers pass around and between the tubes. By this means the temperature of the feed-water is sometimes raised as high as 300°. In the west section a new C shaft has been located, and has now reached a depth of 71 ft. The size commenced was 12 ft. by 12 ft. in the clear, and was carried down this size to the first bearer set. The size of the winding- and ladder-compartments is 12 ft. by 4 ft., and it is the intention to carry the shaft down this size. Should, however, a large body of water be met with it will be possible to open up the shaft to the original size without interfering with the surface-workings. The winding-engine, boiler, and poppet-heads have been removed from the B shaft and placed in position at the new C shaft, and everything is now ready for active work. At this end there is every indication that the continuation of the Martha and Welcome lodes will be intersected, and it is confidently anticipated that a bright future is ahead for this company.

Waihi Extended Mine.—This company's property adjoins the Waihi Grand Junction Mine, and comprises an area of 100 acres. The average number of men employed for the past twelve months has been two, the work being confined to boring operations. Owing to the flat nature of the land, sinking and erection of machinery would be required, which would entail a considerable amount of capital. Before undertaking this work it was decided to go in for boring operations.