character in appearance, and carries the best of mineral and other indications for gold, the assays made so far prove the ore to be low grade. This is the whole of the work that has been done on the lode, owing to having no place to stack quartz.

The main cross-cut has been extended 47 ft., making a total of 482 ft. For ventilation a 10 ft. water-wheel and fan has been erected, also tail-race completed for same. Pipes from here carry air to all parts of the workings at this level. The low-level cross-cut was started at the beginning of the year, and up to date has been driven a distance of 593 ft. At 578 ft. the Komata reef was cut, being a nice body of stone 5 ft. wide. Assays have been made, showing strong traces of gold. Still, at the point of intersection the ore is low grade. From this point 200 ft. more driving will cut Argall's lode. When this work is completed the company will, without doubt, possess a most important and valuable mine. All these works have been securely timbered where necessary. Ventilation has also been carried into low-level cross-cut by means of a water-blast, which required a small flume and trestling to get the necessary pressure, about 35 ft. This works very satisfactorily. The total amount of feet driven during the year was as follows: Driving and cross-cutting on lodes, 512 ft.; rising, 163 ft.; cross-cutting country, 640 ft. We have also in a very forward state earthwork formation completed for 5 chains of ground-tram, commencing from ore-paddock and leading to a shoot 70 ft. in length, to convey ore to the hopper, which is constructed, and will hold about 50 tons. From this point a short length of tramway is in course of construction to convey ore to No. 1 hopper, at the upper terminal of the aërial tramway. An assay office has been built and fitted with the necessary appliances, an assayer engaged, and practical assaying carried out at the works. All works have been carried out with a view to practical use and strict economy.

The connection between the low level of the mine and the company's battery is being made by, first, a continuously working aërial tramway, a little over half a mile in length, and, second, by a steam tramway three-quarters of a mile in length. The arrangements are made so that the ore will be trucked direct from the low level to the hopper at the upper terminal of the aërial tramway, from which it is to be delivered by a skip to the buckets of the aërial line, which again will deliver it near the lower terminal to a hopper at the head of the steam tramway. From this hopper the trucks are to be loaded, and will be taken by a locomotive direct to the stone-crusher at the top of the battery. In the whole of this work the company are sparing no reasonable expense, so that the ore-delivery from the mine to the mill will be made at the lowest possible cost per ton, and, in pursuance of this policy, the most modern aërial machinery has been obtained, of which practice has actually proved the efficiency for their work. The whole of the tramway-works are being constructed in the most finished and substantial manner. The delivery by the aërial line will be 50 tons in eight hours, but could be very much increased if necessary. The great advantage of this machinery over any so far erected in the district lies not so much in an extraordinary capacity for delivery as in the simplicity and strength of the parts, which make it in a high degree suitable for the work of a permanent mine. The steam tramway is laid at a gradient of 1 in 30, with a gauge of 3 ft. 6 in., and 40 lb. rails. The minimum radius of curve is 223 ft. The tramway is made in earthwork 10 ft. wide for the whole length, excepting the four stream-crossings, two of which are crossed by two bridges, each of 30 ft. span, and two by viaducts, one of 134 ft. in length, in seven spans, and one of 30 ft. in length, in two spans. The whole of the timber being used in connection with the works is first-class heart of kauri, and the structures may therefore be considered of a decidedly permanent character. At the present time the earthworks are practically completed both for the aërial and steam tramway. The bridges and viaducts are all built, and the platelaying of the steam tramway and timber-work of the aërial line are now being energetically proceeded with.

The first work done was the erection of the blacksmith's shop and an office, the latter containing two rooms, one of which is at present used for sleeping-accommodation for the men working at the plant. The next work taken in hand was making a tail-race and wheel-pit, and laying on the water from the water-race to the mill-site, with 20 in. water-main. A circular saw was next erected and driven by the water-power, to cut timber to be used in the erection of the mill. Up to date the following works have been completed: The building is finished, and the wheel to drive the mill is in place. The assay and smelting furnaces are complete, and the concrete sumps are finished. Three of the steel vats are already completed, and the foundations are in for seven out of the eight. The battery foundations and framing are erected, and the stamper-boxes placed in position; also the stampers. The towers are made and put in position. The revolving roaster and Gate's crusher are on the site, and the work of erecting them is being pushed on. All the machinery and other material is on the ground, and at the end of July the completion of the works will be drawing to a close. The bad weather and bad roads have greatly delayed the progress of the works. We have a water-race constructed for a length of between two and three miles, capable of carrying ten Government sluice-heads of water. This is completed, and in good working-order throughout.

The following will be the mode of treating the ore: The ore is tipped from the tramway-trucks into storage hopper at the back of the mill. From there it passes through a No. 2 Gate's ore-crusher, and then through a revolving screen, which sizes the ore down to ½ in. mesh. From there it goes through a revolving automatic roaster, 24 ft. long by 52 in. diameter. The ore is dried in this, and conveyed from it to a large hopper at the back of the stampers. From this hopper it is fed automatically into the self-feeders, there being four of them, of the Challenge type; it then passes into the mortar-boxes, where the stampers, twenty in number, crush it to 50-mesh. It falls from the boxes into a small hopper at the front of the stamps. At the bottom of this hopper there is an elevator attached, which conveys the crushed ore to a large hopper placed in the centre of the six large steel percolating-vats. The crushed material is conveyed automatically from this hopper to any of these vats, and, after being treated by the cyanide process, and the greater