along too near the top of the hill. The present terminus of the road is about 500 ft. above the company's low-level tunnel, and when extended to the south boundary of the Barrier Reefs it will be about 600 ft. above the tunnel. As the mill and permanent plant of this or any other producing mine in this neighbourhood would naturally be placed at a level considerably lower than the said tunnel it will never pay to use the present road for transportation of ores and machinery when a road can be built on a level or constantly descending grade to the sea.

The present plant of the company consists of a 12-horse-power upright boiler and a donkey single-cylinder hoisting-engine, a circular saw, a corrugated-iron engine-house, corrugated-iron bunk-house and a cook-house for the men, a blacksmith's shop, and all necessary tools, &c., to work the mine. For the office and manager are two 9 ft. by 12 ft. tents, on wooden frames, with board floors. A 12 ft. by 14 ft. frame cottage, now in Wangaparapara, has been purchased, and will be taken down and moved to the mine, to be used as an assay office—a very necessary adjunct to a property of this kind.

The Barrier Reefs' upper level begins about 70 ft. from the boundary of the Great Barrier Gold and Silver Company's ground, and extends in a westerly direction on the Lee reef for about 150 ft.; at that point the reef has broken up and pinched out. The country at that point is a soft, sedimentary, and drift formation, and of a different nature from what we should get lower down. The mouth of this level was formerly about 20 ft. further to the eastward, but the ground was taken out in excavating for the engine-house. Eighty feet from the mouth of the upper level is the mouth of the upper level of the Great Barrier Gold and Silver Company. This level has been driven in their ground and on the Lee reef for about 450 ft. further to the eastward.

About 20 ft. from the boundary-line and between the mouths of the two tunnels is the 4 ft. by 6 ft. vertical shaft. This has been sunk to a depth of 214 ft. The last 120 ft. of this shaft was done by contract, and has just been completed. The sinking of this shaft will expedite the opening-up of the ground, and the shaft will always serve as an air-way to ventilate the workings below.

From the shaft a cross-cut tunnel is now being started to cut the reef at a depth of 202 ft. below the top of the shaft. According to a plan made by a surveyor for the company, this cross-cut will have to be extended 90 ft. from the shaft to cut the reef, but your manager thinks the reef will be cut at a distance of about 50 ft. in the cross-cut from the shaft.

As hard ground is expected in the cross-cut rapid progress is not likely to be made, and it is impossible to state the exact time necessary to do the work; but the work will be pushed ahead as fast as possible towards the reef. When the reef is cut a drive will be carried on it westward to connect with the low-level adit. According to the survey plan, the distance to drive along the Lee and Iona reefs to connect the shaft cross-cut and the low-level adit-tunnel is 335 ft.

The low-level adit is being done by contract. The contract was let for 600 ft. of tunnel. At this date 500 ft. of the tunnel has been driven, leaving 220 ft. more to drive before intersecting the Iona reef. The face of this low-level tunnel is in very hard, tough country, and the present progress there is slow. A progress of from 75 ft. to 80 ft. a month has been cut down to 5 ft. a week. According to the survey made for the company, this adit should cut a large reef (the Iona) at a distance of 720 ft. from its mouth. When this reef is cut it is the present intention to drive upon it in the direction of the shaft to meet the drive on the Lee reef coming from the shaft, both drives to meet at the same level. As the exact dip and strike of the Iona reef cannot be determined from the surface outcrop on this property there is an uncertainty as to where it will be cut 300 ft. below its outcrop, and possibly the junction of the two reefs may be to the westward from the adit-tunnel instead of east from it as shown on the plan. There are a number of leaders and other reefs showing on the surface and one other large reef, all of which, if they live down, will be cut by the tunnel. To avoid mistakes, and also to prove these veins, the tunnel should be extended to the south beyond the Iona intersection.

Should the present development-work now under way prove that the ore continues valuable in depth, then a more extensive development should be continued. The shaft should be sunk deeper and cross-cuts driven from it to the reef; levels driven, and the ground blocked out for stoping out the ore. The adit-tunnel should be continued towards the southern boundary of the property to prove the reefs that are known to traverse that ground. Should any of these prove valuable a large amount of ore can be blocked out on them, as the tunnel will cut such reefs about 500 ft. below the surface. At the same time, any other reefs encountered carrying payable ore could be opened up by driving on them from the adit-tunnel, which will cross-cut the mineral belt. All of this underground work could be under way while erecting a plant for extraction and while making the necessary surface improvements.

The work at the mine since the present company was organized has all been on developments, not on the reefs, and consequently our knowledge of the Lee reef has not increased since that time. The low-level tunnel will prove the ground, and it is the key to the whole hill to the southward, as all ores, whether in Barrier Reefs' ground or in ground of neighbouring companies, could be handled cheaper and with more backs through this tunnel than through any other tunnel likely to be driven into the hill in the near future.

The plan of development of the mine proposed when the company was organized has been and is now being strictly followed. Should the ores live in depth the shaft and adit-tunnel will be permanent and necessary improvements, and it will not take long to make the mine a steady producer and dividend-payer.

In continuing the work we apprehend no great difficulties. The water in the shaft is now causing some trouble, and there seems to be more coming in, but unless it more than doubles in quantity we will handle it without a pump. We are now baling about one-third of the time, using an iron ore-bucket with a capacity of seventy gallons.

There are over twenty reefs on this property, running in all directions, but the trend of the majority of them is from east to west, with a dip to the south of from 35 deg. to 80 deg. from the horizon. The reef upon which all the work has been done on this property, and also on that of our