C.—3. 160

the south-east. It lies in a high spur separating a branch of the Owera Creek from one of the main branches of the Otanguru Creek, and has been attacked from both sides of the ridge, the total distance that the reef has been traced by tunnels being 1,850 ft. Two tunnels on the Otanguru side are known as No. 1 (Otanguru) and No. 2 (Otanguru). The first is 117 ft. below the crown of the spur, and the second 65 ft. below No. 1. In No. 1 tunnel the reef was cut at the end of a cross-cut 95 ft. in length, and has been driven along for 77 ft. The quartz was 2 ft. to 4 ft. in width, much iron-stained, rubbly, and of very variable value, some of it very good, other portions worthless. A short rise of about 12 ft. at the south end connects this with the No. 1 level from the Owera side of A short rise of about 12 ft. at the south end connects this with the No. 1 level from the Owera sade of the hill. The No. 2 (Otanguru) level is 428 ft. long, 313 ft. being on lode-matter. Here the lode is very mullocky and valueless. The No. 1 (Owera) tunnel is in 379 ft. on the lode, which has been gold-bearing more or less all the way, parts being of really good quality. No. 2 (Owera) tunnel is the top level of the old company, and has not been reopened by the present owners. No. 3 (Owera) tunnel is about 165 ft. vertically below No. 1, or 200 ft. on the underlay. The two are connected by a winze sunk from No. 1. The No. 3 tunnel is now in 1,040 ft. In sinking the winze from No. 1 tunnel the chute of gold pitched northward, and the bottom portion became valueless, but driving northward at No. 3 level the gold came in again, and has been followed for about 200 ft. The lode is very large between its true walls, but is mostly filled with iron-stained mullock. The quartz vein is from 6 in. to 2 ft. in thickness, and, on the whole, of low grade. The No. 4 tunnel is 90 ft. below No. 3, and has been driven a total distance of 792 ft. on the lode, with cross-cuts totalling 245 ft. more. In this level the lode is very much shattered, and is valueless. This level is not yet far enough north to cut the chute of gold seen in the north end of the No. 3 tunnel. Another tunnel has also been put in to the south of the No. 4 level, and 60 ft. higher, which has been driven 214 ft. on the lode, with 100 ft. of cross-cutting. The lode is here little more than a smooth well-defined fissure. The Owera Mine at present is not very promising, but it contains a considerable chute of proved gold-bearing stone which could be very cheaply extracted. There is a ten-head-stamp battery about half a mile from the mine, driven by water-power. This was built by the old company, and is now in rather bad order.

A large amount of work has been done by the Kauri Freehold Gold Estates on the Murphy's Hill Mine, about a mile and a half north-east from the Owera Mine. Here there is a very large quartz reef, which has been traced on surface for 2,800 ft. Some years ago some very good gold-bearing stone was obtained from the outcrop at the south end, and in consequence a good deal of mining-work has been done here, but without success. The lode-matter steadily carries a little gold, but is not payable so far as work has gone. It consists largely of fractured angular blocks of quartz, with a great deal of soft earthy black oxide of maganese. The No. 1 level consists of a cross-cut 85ft. and driving on the lode 256ft. The No. 2 level is 100ft. lower, and in it there are 250ft. of cross-cut to the reef, and a further 136 ft. of continuation of the cross-cut, 140 ft. of driving southward on the lode, 607 ft. of driving northward on the lode, and 232 ft. of cross-cutting. The lode runs north-easterly. After trying the reef at this part without success another tunnel was put in at the north end of the outcrop. This has been driven 442 ft., in faulted, broken country, and has not yet met with the lode, though the outcrop is visible on surface directly overhead. A very large fault seems to traverse the whole country, nearly parallel with the lode, being met with both in this drive and in the extension of the No. 2 level cross-cut.

About 3,400 ft. north-north-west from the main Murphy's Hill workings a number of large loose quartz boulders have been found, some of which give good prospects of gold. To try for the reef from which these have come a cross-cut has been driven from the side of the Kuaotunu Road

a total distance of 420 ft., through somewhat hard country. At 400 ft. a reef was met with, which has been driven along for 74 ft. It is small and poor where cut.

A large amount of work has also been done in the Lillis Mine, in the Te Ranga Block, near the top of the main range between Whangapoua and Coromandel. Here work has been carried on for seven years past by Messrs. Lillis and Ryan, who obtained several parcels of excellent "specimens," and took out, in all, some 1,300 oz. of gold. Several lodes are known to traverse the ground. The company's work has been confined to two tunnels principally, known as Lillis's tunnel and the Eastern tunnel. The Lillis Tunnel has been driven a total distance of 458 ft. across the line of the Lillis and Plutus lodes, and these have been followed northwards 152 ft. and 118 ft. respectively. The Eastern Tunnel cross-cut has been driven 240 ft., cutting two lodes. On the second of these, driving north has been carried on for 142 ft. A cross-cut has also been driven 70 ft. to intersect a lode which gives good prospects on surface near the eastern corner of the Lillis Special A road has been made, three miles in length, from the Waitekuri River up to the mine.

The expenditure of the company on wages alone, not including supplies and machinery, has been as follows: 1897—April, £1,536 4s. 6d.; May, £1,540 14s. 1d.; June, £1,311 17s. 1d.; July, £1,479 1s. 9d.; August, £1,845 7s. 8d.; September, £1,877 17s. 2d.; October, £1,458 12s. 11d.; November, £2,088 7s. 8d.; December, £2,542 1s. 5d. 1898—January, £2,352 17s. 5d.; February, £2,450 4s. 6d.; March, £1,971 17s. 11d.; April, £1,986 1s. 9d.; May, £2,117 3s. 8d.; June, £2,072 9s. 4d. Total for fifteen months, £28,630 18s. 10d.

BARRIER REEFS.

The following account of the Barrier Reefs Mine by Mr. Albion S. Howe, the manager, reached me too late for inclusion in my report :-

The property of the company consists of 80 acres freehold, situated on the Great Barrier Island. The ground is about two miles and a half from Blind Bay, and about one mile and a quarter from Wangaparapara in an air line, but by track and road these distances are nearly doubled. From Blind Bay towards the mine about three miles of wagon-road was lately constructed by the Government. This road is an improvement on the horse-tracks, but it never will be of much service to any of the mines working from low levels, as it has been carried