

battery is now being erected near the claim, and when completed will soon prove whether the stone is payable or not. There is no doubt if a lode averaging 10dwt. of gold per ton were in the vicinity of Reefton it would be looked on as a valuable property; but at present, and until such time as the quartz has been thoroughly tested at a crushing battery, the Reefton mining men will not invest any capital in the concern.

OTAGO DISTRICT.

Old Man Range.

White's Reef.—This was formerly the property of the White's Reef Company, but when the company went into liquidation Messrs. Syme Brothers became the purchasers. As they had both been mining-managers for White's Company, they were well acquainted with the ground, and, as there were few buyers for the property at the time, the whole of it, including the claim, a five-head stamp-battery, chilian mill, one of McQueen's patent grinders and amalgamators, with all mining tools, water-rights, buildings, &c., was sold for £250. During the first twelve months after their purchase they got gold to the value of £1,000. They employ two men beside themselves—in all, four men—on the works. A winze has been sunk from the adit level, and a considerable portion of the reef stoped out. They now contemplate constructing a new adit level about 210ft. below the present one. This will have to be constructed for about 800ft. through dead ground before the reef is cut. As far as the lode has been traced down it maintains the same character as on the upper level; the quartz resembles that found in the Golden Crown claim at Terawhiti, being a soft, decomposed, loose mass, varying from 9in. to 3ft. in thickness. This requires no blasting, the lode being much softer than the foot and hanging-walls. Still, there are occasionally small blocks of solid stone, but these are very rare.

Wakatipu.

Notwithstanding the rich deposits of gold found in the alluvial drifts in this district, and in the beds of the Shotover and Arrow Rivers, and also in Skipper's Creek, there has never been a large quantity of gold obtained from the quartz-reefs in this locality. The character of the gold found in the alluvial drifts bears evidence that it has either come from the denudation of the mountains and disintegration of the auriferous lodes, or quartz veins from the quartzose schist rock, which is the principal country rock in the Otago Mining District. Whenever pieces of gold are found that are not rolled flat and broken up in dust, they have generally small pieces of quartz attached to them; but if the whole of the gold found in the alluvial drifts came from a disintegration of the quartz lodes, thousands of ages must have passed away since this action first commenced, and the mountains must have been at a far higher elevation than they are at the present day, the auriferous lodes being richer than we now find them.

Phoenix Company, Skippers.—This company has one of the oldest mines in New Zealand. It was first opened in 1863, and has been in operation ever since. Up to the end of last year the total quantity of gold obtained was 23,917oz., representing a value of about £92,544. During last year 4,932 tons of quartz were crushed, which yielded 3,438oz. of gold, representing a value of about £13,700, while the expenditure is said to have been about £13,500. Three lodes are being worked in the mine, one of which is about from 8ft. to 10ft. wide, and the others from 3ft. to 4ft. wide. In comparing the result of the workings in this mine with some of the mines in Reefton—as, for instance, the Keep-it-Dark, Globe, or Progress, where there are lodes of similar size, it is greatly in favour of the Reefton mines. The mining timber is a little more expensive at Skippers, but the cost of labour is the same. In order to show clearly a complete analysis of the results for the year 1891, the following statement has been prepared:—

Name of Company.	No. of Men employed.	No. of Tons crushed last Year.	Yield of Gold last Year.	Value.	Expenditure.	Cost per Ton.	Cost of getting 1oz. of Gold.
		£	Oz.	£	£	£ s. d.	£ s. d.
Phoenix ...	65	4,932	3,438	13,700	13,500	2 14 9	3 18 6
Keep-it-Dark ...	...	3,258	1,056	4,224	3,224	0 19 9	3 1 0
Globe ...	...	8,190	3,654	14,616	11,016	1 6 11	3 0 3
Progress ...	...	6,130	2,452	9,808	7,408	1 4 2	3 0 5

By this it will be seen that every ounce of gold obtained from the Phoenix Mine last year cost £3 18s. 6d., and every ton of quartz taken out and treated cost £2 14s. 9d. Taking the average of the other three mines in the Reefton District, every ounce of gold obtained cost £3 0s. 7d., and every ton of quartz taken out and treated cost £1 4s. 9d. At the time of my visit to the Phoenix Mine the ventilation was very bad, but the company expected to make another connection with the surface in a few weeks. The manager informed me that he had been breaking-out the quartz by contract at 9s. and 9s. 6d. per ton, including timbering and filling-in. If the breaking-out of the quartz only cost this amount, there must have been a large number of men employed at dead-work in order to bring up the cost to £2 14s. 9d. per ton. The company's crushing-battery consists of twenty-five heads of stamps, driven by electricity, the dynamo being sufficiently powerful to drive these and the air compressor at the same time, the current being 30 amperes, with an electro-motive force of 1,100 volts, which would be equal to about 44·4 horse-power.

Gallant Tipperary Company.—This company during last year crushed 1,800 tons of quartz, which yielded 424oz. gold, representing a value of £1,632. About nine men have been employed in the mine, and six men about the surface and crushing-battery. The stone crushed last year came from the block above the main adit level, which is now stoped up for about 100ft. and for 70ft. in