

in the erection of a new plant. The water-race is in a very bad state of repair, owing partly to the want of funds, and partly to the fact that an entirely new race has been provided for in the scheme of operations proposed by the option-holders. A plan of a complete plant of twenty head of stamps, with all the most modern improvements, has been submitted to the London syndicate for their approval; and it is intended to use the wet cyanide process. The London syndicate has been granted an extension of their option by paying £100 per month. The option expires shortly, but it is probable another month may be granted in order to complete arrangements. Summary of work for the twelve months: Total length of rises, 230 ft.; winzes, 120 ft.; enlarging cross-cut, 160 ft. The total number of men employed was five."

Alpha Mine (Area, 97½ acres; owner, Alpha Gold-mining Company, No Liability; mine-manager, Charles Collins).—Development was carried on in the mine during the year. 480 ft. of driving and 192 ft. of winzes were opened. This, in addition to the work previously performed, leaves the mine-workings in an advanced stage. The levels are connected by passes from No. 5 upwards, a distance of 400 ft., and a rise is at present being put up on the reef from No. 6 to No. 5 level. This will be used for conveying the quartz down from the upper levels to the No. 6, from whence it will be trucked direct to the mill, a distance of about 500 ft. The reef varies from 4 in. to 4 ft. in width, and tests from it are stated to have given excellent results. Much delay was experienced during the year in the erection of the new battery on account of the difficulty of getting material and machinery on to the ground. The erection of the plant will shortly be completed, and the mine should add to the yield of gold for next year. The battery will consist of twenty stamps, weight 900 lb.; one stone-breaker, by Union Ironworks, San Francisco; three berdans; six vats, 22 ft. diameter, depth 4 ft., with self-acting distributors; amalgam plates in front of stamps. The motive-power will be steam. The whole of the machinery for the battery with the exception of boiler and berdans is from the Union Ironworks, San Francisco; the boiler by Seager and Son.

New Zealand Jubilee Mine (Area, 292 acres 2 roods 2 perches).—A great many men were employed on this property in the early part of the year, in work mostly of a development character, but latterly very little has been done.

Grafton United Mine.—From three to eight men were employed in this mine a portion of the year only.

Wharekiraupunga District.

Royal Standard Mine.—Very little work was done during the year.

Waihi District.

Waihi Mine (Area, 480 acres 3 roods; owner, Waihi Gold-mining Company, Limited; superintendent, H. P. Berry; mine-manager, T. Gilmour).—Three shafts are used in working this mine—viz., No. 1, 350 ft.; No. 2, 445 ft.; and No. 3, 305 ft.—and the greatest depth of workings below surface is 445 ft., or 310 ft. below adit. There are also four levels opened below the adit. The number of reefs are six, named as follows: Martha, Welcome, Victoria, Magazine, Regina, and Surprise. The following is a description of the development work carried out during the year: No. 1 shaft was sunk 66 ft.; No. 2, 17 ft.; No. 3, 226 ft.: driving at No. 1 level, 1,019 ft.; No. 2, 2,282 ft.; No. 3, 2,287 ft.; and No. 4, 1,246 ft.: also driving at the adit-level 557 ft., and above the adit-level 1,316 ft.

The following table gives the battery returns for the year ending the 31st March, 1899:—

Period ending				Crushed.	Yield.	Value.		
				Tons.	Oz.	£	s.	d.
30th April,	1898	...	...	6,690	22,903	22,851	18	2
28th May,	"	...	...	6,150	19,643	18,708	18	2
25th June,	"	...	...	5,891	19,984	18,127	10	4
23rd July,	"	...	...	6,845	22,219	20,722	0	3
20th August,	"	...	...	6,821	25,229	23,449	0	8
17th September,	"	...	...	6,762	22,336	21,151	6	9
15th October,	"	...	...	7,156	21,027	21,611	18	4
12th November,	"	...	...	7,759	22,710	24,123	3	11
10th December,	"	...	...	7,684	23,873	25,285	10	9
31st December,	"	...	...	3,701	10,261	11,879	13	5
4th February, 1899	...	...	...	8,538	23,736	24,256	1	2
4th March,	"	...	...	7,152	21,535	22,076	6	2
1st April,	"	...	...	7,635	20,885	22,095	17	4
Totals...	...	...	...	88,784	276,341	£276,339	5	5

In this mine the development work at No. 4 level has shown that the reefs as they continue downwards furnish quartz of greater value than what was obtained from the other levels. The ores change in character and are more mineralised as depth is attained, and, no doubt, the treatment of this class of quartz will entail modifications and further improvements on the present process. The vast quantities of quartz that will be available from those blocks already opened up show several years' work ahead, and as sinking is continued and fresh levels opened up very great additions will be made to the ore reserves. The future yield of gold is certain to be very great even should the present output not be augmented; but, with the knowledge of such extensive ore reserves, and the probability of successful deep-level mining, the company will of necessity be