

*Wealth of Nations Battery* (A. P. Watson, Superintendent).—This treatment plant operated on residues only, and succeeded in winning therefrom 472 oz. 14 dwt. of gold, valued at £2,527 3s. 4d. The total quantity of gold produced by the company amounts to 370,703 oz. 17 dwt. 2 gr., valued at £1,483,893 16s. 2d. Six men were employed, on an average, during the year.

*Big River Mine* (J. V. Lake, Manager).—The reconditioning of this mine and plant was put in hand at the beginning of January, but several months elapsed before active prospecting operations could be undertaken, and were then confined to Nos. 2 and 3 levels only. All work was carried out at what was considered to be the most favourable points for the occurrence of new or hitherto undiscovered ore-bodies, but, with two exceptions, nothing of importance has been found. The two exceptions are what is known as Jones' reef, No. 2 level, and a new make of stone found at 197 ft. in the south drive off No. 3 main east level. In the first case a winze (previously sunk on lode matter), was extended from 13 ft. to 83 ft., and this work proved payable stone over an average thickness of 4 ft. 6 in. for the last 53 ft. of sinking. The intention is to connect with the winze by an uprise from No. 3 level. In the second instance an entirely new ore-body was met with and followed for a distance of 83 ft. The stone was small at first and somewhat disturbed by faulting, but all-round improvements occurred as work progressed. There was solid stone 3 ft. wide making strongly underfoot and in the roof at 75 ft., and gold could be seen in the same. Driving is being continued. Surface works—Steps are being taken to put the treatment plant in order, and it is expected that crushing will commence about the mid-period of 1933, there being some 300 tons of ore already broken for that purpose. Fourteen men were employed on an average during the year.

*Homer Mine* (D. Absalom, Manager).—A total of 166 tons of ore was produced by this mine during the year, and gave a yield of 81 oz. 18 dwt. of gold, valued at £435 10s. 8d. The reef averaged 3 ft. in width, and the gold won (a cyanide plant not having been installed), was obtained by amalgamation alone. A considerable amount of surface prospecting has also taken place during the period, and the results obtained therefrom are considered to be highly satisfactory. The total quantity of gold won since the commencement of operations amounts to 140 oz. 17 dwt., valued at £667 10s. 8d. Two men were employed on an average during the year.

#### Westland District (Ross).

*Mount Greenland Mine* (W. O. Bierworth, Superintendent).—Development operations at this mine have been confined to No. 2 level, and consisted of rising and driving, all on the reef, with the total footages stated at 155 ft. and 250 ft. respectively, and the average width of stone at 4 ft. Stopping has been carried out over the full length of reef developed, and this work resulted in the production of 625 tons of stone, which gave a yield of 526 oz. 10 dwt. of gold, worth £2,106. The quantity of gold won since the commencement of operations amounts to 2,809 oz. 6 dwt. 5 gr., valued at £11,306 7s. 3d. An average of six men was employed in both mine and battery during the year.

#### DREDGING.

*Rimu Dredge* (A. Archer, Dredgemaster).—The company's all-steel electrically-operated dredge worked for a total of 6,778-27 hours, or 91·1 per cent. of the possible digging period. During this time some 2,780,017 cubic yards of gravel was treated, the yield being 14,524 oz. of gold, worth £92,079, which represents an approximate winning of £13 12s. per digging-hour, or an average recovery of 7·95d. per cubic yard of gravels treated. No additions or improvements were made to the dredge outside a few minor guards and reinforcements. Operations throughout the year were practically continuous, there being no long shutdowns for repairs or breakage. There is such a small margin between gravel values and working-costs that steps are being taken to quicken the bucket-line speed so as to increase the amount of ground treated, and it is hoped, by this means, to bring the volume of gravel treated during 1933 up to, or in excess of, 3,000,000 cubic yards. The total yield of gold since the commencement of operations amounts to 133,156 oz., valued at £566,943. The operation of the new dredge has satisfied expectations in every way. There were forty-five men employed on an average for the year.

*Okarito Five-mile Beach Dredging Co., Ltd.* (D. Mitchell, Dredgemaster).—The company's hydraulically-operated dredge suffered no serious interruptions during the year, and succeeded in working a total of 6,780 hours, or 94·16 per cent. of the possible digging-time. 417,847 cubic yards of gravel was turned over for this period, and recoveries therefrom amounted to 2,329 oz. of gold, worth £13,969, which gives an average approximate value of 8d. per cubic yard. The installation of a new Pelton wheel during the year, together with alterations to the pressure pipe-line, gave satisfactory results, and it is considered that still further improvements can be made to the last-mentioned item of work. The dredging of a rib of somewhat heavy ground adjacent to high-water mark gave a fair amount of trouble during the mid-period of the year, and this was directly reflected in the matter of yardage treated. Recoveries, also, were affected by the impoverished nature of the ground referred to. The total yield of gold since the commencement of operations amounts to 4,462 oz. 3 dwt., worth £24,816 6s. 3d. Eleven men were employed throughout the year.

*Auatuna Extended Dredging Co.* (D. Pettigrew, Dredgemaster).—Operations at this company's dredge were carried out for a few weeks only, and the plant was then shut down owing to poor average values and the recoveries falling below paying point. 12,000 cubic yards of material was treated during this time, and the gold won amounted to 106 oz. 4 dwt., worth £660 3s. 11d. The yield since the commencement of operations amounts to 276 oz. 19 dwt. of gold, worth £1,343 3s. 11d. Eight men were employed on the dredge when it was working.

#### ALLUVIAL MINING.

*Mahakipawa Goldfields Ltd.* (K. M. Barrance, Manager).—This company's mine worked continuously for the year, and produced 6,727 cubic yards of wash and bottom rock, which yielded 1,842 oz. of gold, worth £10,821 19s. 10d. Development work has been carried out to the north and to the south of the shaft crosscut, and consists in all of 710 ft. of driving and 520 ft. of crosscutting. Southwards, the pay-lead was followed for 420 ft., when a quick rise in the bottom rock occurred, and its further existence looked doubtful. Subsequent developments proved, however, that a continuation of the lead was more to the east than had been anticipated, and work progressed thereon accordingly. The lead was followed to the north by a 3 per cent. dip drive for a distance of 290 ft., with values satisfactory, and the average width of wash-dirt, 30 ft. A small centrifugal electric pump was installed for the purpose of handling inflows of water encountered in projecting the north drive. The total yield of gold since the commencement of operations amounts to 3,851 oz. 9 dwt., worth £20,248 1s. 10d. Twenty-four men were employed on an average for the year.

*Bell Hill Gold Sluicing Co., Ltd.* (R. C. Bell, Manager).—The yield from this company's claim amounted to 94 oz. 11 dwt. of gold, valued at £513 16s. 9d., and was obtained from the treatment of 60,000 cubic yards of gravel, valued at 2·09d. per cubic yard. An average of nine men were employed throughout the year.

*Hohonu Gold Sluicing Claim* (J. A. Peever, Manager).—Sluicing operations at this claim were practically continuous throughout the year, and resulted in 353,500 cubic yards of gravel being treated during a total working period of 1,450 hours, or 244 cubic yards of gravel being washed per hour. The gold won from this work amounted to 197 oz., valued at £1,144, which represents a yardage rate of 0·77d.—a considerable decrease when compared with last year's values. An improvement was shown in this respect during the closing month of the year. Five men were employed for the period.