

show no signs of decreasing when compared with the upper levels. The North shaft, at the end of the period had been retimbered for its full depth, excepting 280 ft. from the surface. Steam winding at this shaft will be superseded by electric winding in the near future, and the whole of the mine output will be hoisted from the main shaft. Additions to the treatment plant are contemplated in order to deal with an increased output from the mine. The battery crushed 45,660 tons, which returned 16,829 oz. by amalgamation, 2,807 oz. by cyanidation, and 1,580 oz. 5 dwt. by the treatment of concentrates, making a total of 21,216 oz. 5 dwt., which realized £173,541 11s. 2d. The total yield since the commencement of operations amounts to 519,768 oz. 4 dwt., valued at £2,373,367 8s. 4d. Dividends paid during the year amounted to £24,999 4s.

Alexander Mine.—J. Bolitho, manager, and twenty-four men employed. Operations for the year were confined to the development and ore extraction from the McVicar Block only, and consist of the following: No. 3 intermediate level: 10 ft. was driven, making 240 ft. driven on lode in this level. The reef gradually got smaller and finally cut out. Further prospecting was carried out north, but failed to recover any stone. No. 4 south level: Driving south on the fault line which displaced the reef on the level, the stone was again recovered and proved to be a block averaging 3 ft. 3 in. in width over a length of 121 ft. This stone is living strong underfoot. No. 4 north drive: This level was extended on reef track only. Two crosscuts were put out, one 12 ft. on the western side, and one 30 ft. on the eastern side, without disclosing anything of value. No. 4 Winze. Winzing was started on the block of stone discovered by driving No. 4 south level. Soon after starting, water troubles commenced, and a pump had to be procured and sent to the mine. A depth of 60 ft. below No. 4 was reached, but the water at this point increasing, sinking had to be abandoned. The lode followed is a fair body of ore, averaging 3 ft. in width and a value of £3 9s. 3d. per ton. A fault occurs 52 ft. down, beyond which the lode has not yet been recovered. No. 5 Crosscut: This crosscut was started 125 ft. below New No. 4 level to intersect the downward continuation of the lode in No. 4 winze. The country has been good and carried considerable quantities of water, which drained as driving proceeded; 998 ft. has been driven, the estimated distance to reef channel being 1,030 ft. Stopping has been carried on in No. 4 backs, and below No. 3 level on the south end of McVicar Block. All developed ore above No. 4 has been taken out. In October last it was decided to close the furnace down owing to the losses during treatment. The cause of this loss was probably dusting inside the furnace, but experiments tried with reduced draught failed to eliminate the loss. All concentrates now have to be sent to Australia for treatment. Advantage has been taken of the temporary stoppage in the mill to instal an 11 ft. elevating wheel to lift the pulp higher, so that more efficient sizing can be carried out before the pulp passes over the Wilfley tables. The battery crushed 3,008 tons of ore for a yield of 2,552 oz. 6 dwt. of gold, of which 1,510 oz. 17 dwt. was obtained by amalgamation, 437 oz. 6 dwt. by cyanidation, and 604 oz. 3 dwt. by the treatment of concentrates, the whole of which realized £20,303 13s. 8d. The total yield of gold since the commencement of operations amounts to 26,263 oz. 16 dwt., valued at £151,567 3s. 1d. Dividends paid during the year amounted to £3,750.

Big River Mine.—T. Thomson, manager, and twenty-nine men employed. Development work at this mine was confined to No. 4 level, where the north drive was extended 98 ft. along reef track, with stone up to 6 ft. wide in places. The south drive was extended 112 ft. on reef track. A rise, 25 ft. north of shaft crosscut, was put up in stone which was 4 ft. wide at the bottom and narrowed in to 1 ft. at 57 ft. up. This holed through to winze from No. 3 at 71 ft. A further rise at the end of north drive went up to 16 ft. on 4 ft. of stone. Three winzes have been sunk below No. 4 level. North winze (140 ft. north of shaft crosscut), is down to 55½ ft., and carried a full face of stone for almost all of the first 40 ft. The stone then narrowed in to 2 ft. and at the bottom is visible in the south end only. Centre winze (35 ft. north of shaft crosscut), is down to 53 ft., and carried an average of 3 ft. of stone for the first 40 ft. Reef showed all the way to the bottom, though the last 5 ft. was somewhat broken up. South winze (50 ft. south of shaft crosscut), was sunk to 59 ft. on a full face of stone. Stopping was carried out in three blocks above No. 4 level, each of an average length of 40 ft. on stone from 3 ft. to 8 ft. wide. The retimbering of the shaft between Nos. 4 and 5 levels is nearing completion. This work was retarded by considerable caving extending from about 40 ft. below No. 4 to approximately 70 ft. below No. 4 level. The battery crushed 2,431 tons of ore for a yield of 2,223 oz. 11 dwt. of gold, of which 1,940 oz. was obtained by amalgamation, 235 oz. 12 dwt. by cyanidation, and 147 oz. 19 dwt. by the treatment of concentrates, the value of the whole recovery being £19,028 4s. 1d. The total yield of gold since the reconstruction of the company amounts to 3,842 oz. 9 dwt., worth £30,854 15s. 6d.

Homer Mine.—D. Absalom, manager, and two men employed. The work carried out at this mine consisted of surface prospecting only. No ore was mined or treated for the period. The property is under option to a syndicate represented in New Zealand by Mr. J. S. Langford, Hokitika. The total amount of gold won up to date amounts to 162 oz. 3 dwt. 9 gr., valued at £791 3s. 6d.

Langley's Creek (T. C. Walls and Party).—A party of three men reconditioned a five-head battery and drove a new development drive 100 ft. in length in the cemented auriferous gravel band which covers a considerable area north-east of the Inangahua River. The new drive is west of the old workings and commands a considerable tonnage of gravels which can be cheaply mined by the use of modern plant. From the development work 120 tons of material was crushed, for a return of 19 oz. 14 dwt. 4 gr. of gold, which realized £128 8s. 9d.

GREY COUNTY.

Minerva Mine (W. R. McGregor, manager).—A local company, employing six men, dewatered this mine during the year and erected a ten-head battery and power-transmission line; 150 tons of ore was crushed for a return of 22 oz. of gold, worth £145, by amalgamation only. The ore was won from the sides of the incline shaft sunk on the ore body. No lateral development was undertaken, and the mine was closed down owing to the company's working capital becoming exhausted.

WESTLAND COUNTY.

Bierwirth's Gold Reefs, Limited.—W. O. Bierwirth, manager, and eight men employed. Operations at this mine were chiefly confined to No. 2 level, which had proved an ore body 400 ft. in length and of an average width of 16 ft. A five-stamp battery crushed 391 tons of ore, which yielded 329 oz. 18 dwt. of gold by amalgamation only. The sum realized from gold sales amounted to £1,961 7s. 3d., and the total quantity of gold won since the commencement of operations is 3,949 oz. 5 dwt. 5 gr., valued at £17,577 17s.

DREDGE-MINING.

Mataki Dredge, Murchison County (T. B. Gillooly, dredgemaster).—This steam-power dredge operated continuously during the year in ground having an average depth of 17 ft., with seven cubic foot buckets; 595,934 cubic yards of gravels were dredged for a return of 1,972 oz. 8 dwt. of gold, which realized the sum of £14,633 9s. 10d. Dividends amounting to £1,405 16s. 7d., making a total of £4,218 0s. 8d. paid since the commencement of operations, were paid during the year and employment given to sixteen men. The total quantity of gold won up to date amounts to 4,166 oz. 15 dwt. 10 gr., worth £30,151 1s. 11d.

Workshop Dredge, Inangahua County (N. Curnow, dredgemaster).—With a Diesel engine generating power this dredge dug in 20 ft. ground, with four cubic foot buckets; 339,472 cubic yards of material was treated, for a return of 2,044 oz. 16 dwt. 4 gr. of gold, worth £13,871 10s. 5d. Dividends amounting to £4,800 were paid during the year, and employment given to fourteen men. This dredge has returned to shareholders £8,000 in dividends. The total yield since the commencement of operations amounts to 3,100 oz. 1 dwt. 14 gr., valued at £21,586 13s. 3d.