

from the mine since 1917 (when it was operated by the Mount Greenland Gold Quartz Mining Co., Ltd.) 4,135 oz., 3 dwt. 16 gr., valued at £18,876 5s. 6d. Operations were confined to the block of quartz above the No. 2 level, and were suspended at the end of May, 1937. During the latter half of the year the mine was closed down, and an attempt was made to complete the arrangements for a new company to take over and work the mine on a larger scale.

Lode-prospecting.—During the year two special prospecting parties organized by the Mines and Labour Departments were engaged in the examination of selected areas in South Westland. The first party commenced field operations towards the end of the previous year and carried on until May, 1937; it confined its activities to the country between the Main Alpine Range and the western coast-line, from the drainage basin of the Paringa River southward to the Moeraki or Blue River.

The second party commenced field operations in January, 1937, in the Omoeroa-Waikukupa-Cook Rivers district and carried on its investigations until May, when it was transferred to the Bullock Creek-Bald Hill-Copper Creek areas, a few miles north of the Haast River. Field operations in the latter area were concluded in October. Each party was in charge of a geologist, the average number of prospectors under his control being seven. The parties traversed large areas of difficult country and succeeded in locating many occurrences of quartz marked on earlier maps by the explorer Mr. Charles Douglas, but these, together with other outcrops located by the parties, did not reveal any mineralization of economic importance.

During the year various other parties carried out reef-prospecting in the Taipo Valley, the Totara Valley, and at Ross.

DREDGE MINING.

Mataki Dredge, Murchison County (T. B. Gillooly, jun., Dredgemaster).—The dredge operated throughout the year in the Mataki River, the average number of men employed being fifteen: 425,202 cubic yards was dredged for a return of 1,306 oz. 12 dwt. of gold, which realized £9,627 18s. 1d. The quantity of gold won to date amounts to 7,197 oz. 0 dwt. 1 gr., and the total value £52,356 1s. 3d. No dividends were paid during the year, but dividends paid since the commencement of operations amount to £7,029 13s. 10d. The dredge is steam-powered, with 7 cubic feet buckets; the average depth of ground dredged during the year was 11 ft.

Mataki Junction Dredge, Murchison County (F. McFelin, Dredgemaster).—During the year the dredge worked an area of approximately 27 acres and treated 989,500 cubic yards for a recovery of 3,385 oz. 0 dwt. 23 gr. of smelted gold, valued at £24,637 3s. 7d. The total weight and value of the gold obtained since the inception of operations is 5,611 oz. 19 dwt. 8 gr., and £43,293 11s. 11d. respectively. During the year the average number of men employed was seventeen: the sum of £2,590 was paid in dividends. The dredge is driven by Diesel electric power, and has 6 cubic feet buckets. The average depth of ground was 22 ft.

Workshop Dredge, Inangahua County (N. Curnow, Dredgemaster).—This dredge is equipped with 4 cubic feet buckets and is driven by a Diesel engine. The dredge operated steadily throughout the year, an average of thirteen men being employed; 453,200 cubic yards was treated which yielded 1,456 oz. 18 dwt. of alluvial gold, valued at £11,699 7s. 9d. The total value of the gold won since the commencement of operations is £50,975 17s. 7d., from 6,477 oz. 3 dwt. 17 gr. During the year dividends amounting to £3,200 were paid, making a total of £16,000 since the inception of the company; the original capital of the company has now been returned in full. The average depth of the ground dredged was 14 ft.

Mossy Creek Dredge, Inangahua County (A. Keith, Dredgemaster).—During the year this electrically driven 4 cubic feet bucket dredge treated 395,462 cubic yards which yielded 1,465 oz. 12 dwt. 23 gr. of alluvial gold, valued at £12,007 5s. 2d., out of which £2,500 were paid in dividends. Since the commencement of operations 5,552 oz. 7 dwt. 22 gr. of gold has been won, valued at £45,580 5s. 10d.; dividends totalled £13,750. The average number of men employed during the year was twelve. The average depth of ground was 12 ft.

Argo Dredge, Grey County (A. Fischer, Dredgemaster).—The electrically driven 4½ cubic feet bucket dredge worked continually throughout the year and treated 545,500 cubic yards for a yield of 3,178 oz. 5 dwt. of alluvial gold, valued at £23,920 8s. 11d. Dividends amounting to £10,000 were paid during the year. Since the commencement of operations 6,834 oz. 19 dwt. of gold has been won, valued at £54,195 6s. 5d., out of which £21,200 has been paid in dividends. The average number of men employed during the year was thirteen. The average depth of ground dredged was 26 ft.

Maori Gully Dredge, Grey County (D. Cuthiness, Dredgemaster).—During the year this electrically operated 4 cubic feet bucket dredge treated 565,300 cubic yards for a yield of 1,797 oz. 2 dwt. 10 gr. of alluvial gold, valued at £13,304 12s. 6d. Since the commencement of operations 4,826 oz. 9 dwt. 7 gr. has been won, valued at £35,632 5s. 3d. The average number of men employed during the year was ten. No dividends were paid, but the dividends since the commencement of operations total £6,000. The dredge has worked up the Stillwater Creek towards the confluence of Wainea and Maori Creeks. The depth of ground has varied considerably, the average being approximately 25 ft.

New River Dredge, Grey County (J. A. Anderson, Dredgemaster).—This Diesel-powered dredge, with 4 cubic feet buckets, operated on the New River immediately below Dunganville; 444,500 cubic yards was treated for a yield of 1,725 oz. 15 dwt. of alluvial gold, valued at £12,485 12s. 8d. Since the commencement of operations 1,938 oz. 11 dwt. of gold, valued at £13,916 11s. 3d., has been won. An average of eleven men have been employed. The average depth of ground dredged was 10 ft.

Nemona Dredge, Grey County (A. Holden, Dredgemaster).—This electrically driven dredge with 4½ cubic feet buckets operated continuously throughout the year, an average of twelve men being employed; 639,950 cubic yards was treated for a yield of 2,690 oz. 16 dwt. of alluvial gold, valued at £20,224 17s. 1d. Since the commencement of operations 3,677 oz. 14 dwt. 3 gr. of gold has been won, valued at £28,194 3s. 4d. During the year £7,500 was paid in dividends, making a total of £10,500 since the dredge commenced operations in June, 1936. Approximately 23 acres of ground has been dredged; the depth of ground varies considerably, ranging from 14 ft. to 32 ft., the average depth being 25 ft. During the year a combination stone chute was added to the dredge at the screen discharge to facilitate the control of pond-water level; this chute also relieves the stacker-elevator of much work. At the end of the year two auxiliary pontoons were added to the main pontoon, to improve the buoyancy and trim of the dredge while digging shallow ground. The dredge operates in Cockeye Creek, a tributary of the New River, near Marsden.

Bundi Dredge, Grey County (R. Murray, Dredgemaster).—During the year this steam-driven 10 cubic feet bucket dredge employed an average of thirty men, and treated 266,124 cubic yards of gravel which yielded 857 oz. 4 dwt. 10 gr. of alluvial gold, valued at £6,000 11s. 6d. Since the commencement of operations 6,078 oz. 1 dwt. 2 gr. of gold has been obtained, valued at £44,925 11s. 6d. At the latter end of the year the dredge operated at Chinaman Terrace, about two miles from Camerons, in the New River Valley. At the conclusion of last year's operations the dredge was approaching Two Mile Creek. It had to proceed up this creek to reach Chinaman Terrace, and met with considerable difficulty owing to the rise in the "blue reef" bottom. At times 18 ft. of this bottom had to be dug; the tailings chutes were so arranged that the tailings could be stacked in a series of dams.

White's Electric Dredge, Grey County (H. J. Werner, Dredgemaster).—This dredge was closed down for approximately five months while alterations to the tables were carried out. The steel sluice-boxes with plush matting were discarded in favour of broad wooden tables with slotted rubber matting. Several of the head tables were equipped with vibrating mechanism. The average number of men employed during the year was fourteen; 182,316 cubic yards was treated for a return of 804 oz. 3 dwt. of gold, valued at £5,832 19s. 4d. Since the commencement of operations 949 oz. 7 dwt. of gold have been won, valued at £6,887 16s. 10d.

Burrytown Dredge, Grey County (T. B. Gillooly, sen., Dredgemaster).—Construction work was completed during the year and the dredge was given trial runs early in May, but, owing to the shortage of electric power, operations were only possible during the off-peak periods between 12 midnight and 8 a.m. A supplementary power-supply was made available by the end of July, and full working time was possible from that date until the end of the year. Since the commencement of operations 834,000 cubic yards has been treated for a return of 2,984 oz. 16 dwt. 9 gr. of alluvial gold, valued at £21,969 7s. The average number of men employed was thirty-eight. The average depth of ground dredged was 29.41 ft. The dredge is equipped with eighteen Bendelari jigs, with hematite ragging; the blacksand and gold spigot product is passed over plush-lined tables, the concentrates from which are treated in amalgamation barrels. The jigs are arranged in two banks (of nine each), one on each side of the dredge. The dredge strips the overburden ahead of the auriferous sands and gravels, the earthy and decayed vegetable matter being bye-passed astern and placed on top of tailings. The dredge is equipped with 12 cubic yard buckets; the total connected horse-power of the electric motors is 879.