

*Grey County*

*Associated Gold Dredges, Ltd.*—This company did not attempt to start up Atarau and Marsden Dredges and both are lying fully equipped and maintained on a caretaking basis.

*Ngahere Dredge, Ngahere.*—The following figures are submitted relative to operations during 1949, and it will be noted therefrom that the percentage of running-time dropped from 71·63 per cent. during the previous year to 50·47 per cent. during the year under review (this was due entirely to two very serious accidents which occurred during the year):—

Possible dredging-time (hours)	..	..	..	7,264
Actual dredging-time (hours)	..	..	..	3,665·03
Time lost (hours)	..	..	..	3,598·97
Percentage running time	..	..	..	50·47
Area dredged (acres).	..	..	..	13·314
Yardage treated (cubic yards)	..	..	..	1,498,351
Yardage per hour	..	..	..	408·8
Bucket efficiency (per cent.)	..	..	..	46·92
Gold produced (ounces)	..	..	..	4,971·58
Average recovery (grains per cubic yard)	..	..	..	1·59
Average number of men employed	..	..	..	27

The first accident occurred in July, when the buckets penetrated an old prospecting tunnel 1,200 ft. long running from Aynsley's old sluicing claim to the dredge paddock. The company was aware of the existence of this tunnel and thought it was efficiently sealed near the outlet. However, on 12th July the sealing broke away and the water ran from the dredge paddock. Fortunately there was time to turn the dredge parallel to the digging face and it settled on to bottom without any damage. The break into the tunnel was sealed by bulldozing material into it after blocking with timber. The dredge was then turned and sand and gravel dredged over the sealing. Digging recommenced on 4th August, and the starboard side of dredge cut was altered so that the dredge did not break surface within 30 ft. from the supposed line of tunnel. In addition to this precaution a toe was left on this side of cut which brought the total distance from where the dredge was bottomed to the supposed position of the tunnel to just on 80 ft. On 15th September the water again burst into the tunnel some 30 ft. below the top of the dredge face. On this occasion the water drained away in twenty-seven minutes, making it impossible to turn the dredge, and it settled on bow and stern, breaking the digging ladder forward of the bow gantry. A pump capable of delivering 5,000 gallons per minute had to be installed to control the water-level in paddock before repairs to ladder could be undertaken. By the end of the year the dredge was restored to first-class working condition, but it was not until some weeks later that the dredge resumed operations owing to difficulties encountered in raising the water-level to suitable height in dredge paddock, the outflow from tunnel being almost as great as drainage into dredge pond, but an improvement in this direction was gradually effected.

*Westland County*

*Rimu Dredge, Rimu.*—For the second year in succession the dredge dug through the low-grade gravels on the south side of the property, this procedure being necessary in order that the dredge may dig the deeper high-grade gravel uphill and thereby attain greater depth below water-level. The following figures summarize the chief features of the year's operations:—

Working days	..	..	..	..	303
Working hours	..	..	..	..	7,272
Hours digging	..	..	..	..	5,306
Percentage time digging	..	..	..	..	73
Area dug, in acres	..	..	..	..	23·119
Average depth, in feet	..	..	..	..	42
Cubic yards handled	..	..	..	..	1,565,000
Cubic yards handled per day	..	..	..	..	5,200
Cubic yards handled per digging-hour	..	..	..	..	295
Ounces bullion produced (crude ounces)	..	..	..	..	5,061·98

The operation of the dredge has been impaired more or less throughout the year by the difficulty in obtaining replacement parts and the long deliveries required.

*Kanieri Dredge (Gold Mines (N.Z.), Ltd.) Kanieri.*—This dredge operated continuously during the year in ground of higher grade than that worked during the previous year, and with a higher volume of gravels dredged the gold returns were substantially increased, and analysis of the following figures in comparison with 1948 returns will reveal a satisfactory improvement in all respects:—

Area of ground dredged (acres)	..	..	..	..	15·813
Possible dredging-hours	..	..	..	..	7,264
Actual dredging-time (hours)	..	..	..	..	5,860
Percentage running-time	.....	..	..	..	79·79
Yardage treated	..	..	..	..	2,789,372
Bullion recovered (ounces)	..	..	..	..	11,805·6
Recovery (grains per cubic yard)	..	..	..	..	2·03
Average depth (foot)	..	..	..	..	113