

*Alluvial Mining.*

This branch of the industry has shown some little advancement for the year, 167 men being employed, as against 132, and about £3,000 more gold being won and disposed of than recorded in 1923. Altogether 3,592 oz. 6 dwt. gold, valued at £14,267 2s., were accounted for.

The following details give some idea of the work done in the different fields :—

*Howard Diggings.*—Returns show that twenty-one men were employed, winning 175 oz. gold, worth £703 13s. 8d.

*Murchison* (including Lyell, Newton Flat, and Matakitaiki).—Twenty men were employed, winning gold to the value of £533 14s. 9d. The Buller Sluicing Company, operating on the Glenroy River, which employed twelve of the number of men, has not yet passed the prospecting stage, but has not evidently met with much success.

*Westport District* (including Charleston, Fairdown, and Waimangaroa).—Twelve men were employed, winning 299 oz. 1 dwt. 6 gr. gold, valued at £1,149 1s. 8d.

*Grey Valley* (including Ahaura, Nelson Creek, and Blackball).—Fifteen men employed. 258 oz. gold were recovered, valued at £1,041 8s. 5d.

*Collingwood.*—Eight men were employed at Parapara and Rockville, winning 86 oz. 2 dwt. 18 gr. gold, valued at £312 13s. 3d.

*Blenheim.*—Seven men were employed in connection with prospecting on the old Mahakipawa field.

*Kumara* (including Stafford, Greenstone, and Callaghan's).—This was the most active and productive centre, thirty-three men being employed. 1,570 oz. gold were recovered, valued at £6,223 11s., the most successful claims being the Hohonu Sluicing Company at Greenstone, Stubbs and Steel at Revell's Terrace, and Havill's at Callaghan's.

*Barrytown.*—Five men were employed working the beaches, 41 oz. gold being recovered.

*Reefton.*—Gold amounting to 237 oz. 19 cwt. 14 gr. were recovered, valued at £913 19s. 3d. Twelve men were employed.

*Hokitika.*—On the various old fields in this locality twenty-one men were employed, mining 401 oz. 3 dwt. 10 gr. gold, valued at £1,611 4s. 9d.

*Okarito.*—The beaches from Okarito to Gillespie's have apparently been fairly good, eight men winning from them 294 oz. 15 dwt. 19 gr. gold, valued at £1,149 1s. 8d. Gillespie's Beach was by far the most productive locality.

*Mining other than Gold.*

*Iron.*—During the year active smelting operations were again entered upon by the Onakaka Iron and Steel Company, and 630 tons of pig iron were produced, the whole of which was found to be of good quality and was disposed of to ironfounders throughout the Dominion.

During the smelting run the furnace worked smoothly, three tappings being made daily. The consumption of coke was 1 ton to each ton of pig iron produced, and the daily output of the furnace was approximately 20 tons. Owing, however, to various serious obstacles the operations whilst entirely successful from a smelting point of view were not so from a financial aspect. The chief trouble lay in the company's inability to procure or produce coke at a sufficiently low price at the time to enable it to turn out pig-iron at a figure admitting of successful competition with the imported article. A supply of suitable coke could not be secured at a satisfactory price in the Dominion, and New South Wales coke proved too costly, so the company had to resort to making its own from coal brought by sea from Greymouth. This coal had to be carted from the company's wharf to its coke-ovens, a distance of about one mile and three-quarters over a bad road, and this handling proved over-costly. Further than that, there was no shelter for the coal, with the result that in the very wet weather that prevails in the locality it became loaded with moisture to such an extent that it took an unduly long time to coke when placed in the ovens. The normal time for a charge in the small beehive ovens used is forty-eight hours, but owing to its wet condition this coal was taking anything from sixty to ninety-eight hours to go through. The result of this was inevitably that the coking-costs reached a prohibitive figure. Realizing that it was impossible to carry on under the existing conditions the company ceased its smelting operations, and set to work to procure better means of transport for the coal from the wharf to the ovens and to provide means also of keeping the coal in dry conditions. Plans were prepared for the laying-down of a tramway between the wharf and the coking plant, the erection of suitable sheds at both termini, and the erection of six more ovens in addition to the sixteen already built. A start was made with this work, and prior to the end of the year the formation of the tramway had been about two-thirds completed, and all the ties, rails, &c., had been delivered at the wharf. The additional ovens had also been partially built. Owing to the necessity of raising further capital work was again stopped in October. A debenture issue to provide the necessary funds is now being offered to the public, and, as I understand this is being taken up readily, it may be expected that an early resumption of active work will take place. As the whole success or otherwise of the venture depends on the production of coke at a satisfactory price, and as the improved facilities now being provided should enable the company to attain its objective in this direction, much better results should be forthcoming from the company's efforts when smelting is again started.

*Petroleum.*—No active boring was done in this district in search of petroleum during 1924, but the possibility of finding payable deposits has not been lost sight of. In the Murchison district a mineral prospecting warrant, covering 9,829 acres, has been taken up by Messrs. D. Oxnam and party in Tutaki and Matiri Survey Districts with a view to prospecting for oil. It is generally known that strong oil seepages occur at various points in this locality. During 1922 Professor Cotton, of Sydney University, visited and reported on them, expressing the opinion that, whilst oil-bearing beds probably existed there, they were at a great depth—6,000 ft. or more—from the surface, and the strata was so dislocated by fractures that no area left between the latter would be sufficiently large to permit of the accumulation of a payable deposit of oil. The geologist referred to gave, however, his chief attention to the Warwick Saddle area, to which his remarks fairly apply. Messrs. Oxnam and party propose devoting their efforts to the Mangles River area, where they are satisfied the strata overlying the possible oil-bearing beds are not nearly so deep and the faulting has not been so intense. They believe that an anticlinal structure stretches for miles through the country, with its crest passing through the Mangles River area and on to a point south of the Warwick Saddle. If this is so, there seems a strong probability that at some point or other along its strike payable oil-beds may be located, and inasmuch as the overlying conglomerates, sandstones, &c., have been entirely eroded at the Mangles River, leaving only the arkose grits as cover for the possible oil-beds, it is certain that drilling would not there have to be carried to so great a depth as would be necessary elsewhere on the field, hence it appears to be a favourable locality for initial prospecting. On behalf of the warrant-holders, Mr. J. A. Spencer, who has had field experience with the Anglo-Persian Oil Company, has examined this area, and has reported favourably on it from a prospecting point of view, and a site has been selected for the first borehole. This is, I understand, near the junction of Blackwater Creek and the Mangles River. I am informed that the necessary capital for putting down this bore is available, and that negotiations are proceeding for the purchase of the drilling plant required.

Other applications for similar warrants for prospecting for petroleum in the Murchison district have been lodged by Mr. J. Bassett and Mr. F. Creighton.

In Grey County mineral prospecting warrants, covering 25,000 acres in Waimea and Arnold Survey Districts, have been granted to Mr. J. B. Donald for a similar purpose.

*General Remarks.*

*Mining.*—Mining generally throughout the district has shown a slight improvement. In the alluvial branch 167 men were employed, as against 132 last year, and 711 oz. 10 dwt. more gold were won. In the quartz-mining branch forty-seven more men were employed. Some 51,467 tons were crushed, as against 47,872 tons in 1923, an increase of 3,595 tons, whilst the gold yield amounted to 27,574 oz. 14 dwt. 12 gr., valued at £115,651 18s. 4d., as compared with 25,290 oz., valued at £99,143 6s. 2d.

*Quarries.*—In the various quarries in the district slightly fewer men were employed, but the value of the product went up to £55,121 12s. 2d., an increase of £13,763 17s. on the previous year's figures. No accidents of any kind were reported.

*Prospecting.*—Apart from the work done by means of Keystone drills by the Rimu Gold-dredging Company, field prospecting either for reef or alluvial has not been active. Very few applications for prospecting assistance were received, but such of these as seemed deserving were granted subsidies.