

of 12ft. 6in. I must confess that I was much excited, because, on examining the coal *in situ*, it was clear to me that I had to do with a real coal, its compactness, specific gravity, lustre, and combustibility, leaving nothing to be desired. As the seam struck in a regular way across the river, whilst at the same time I was able to trace it towards the north, I had no difficulty in concluding that the spot upon which I was standing would prove a source of great wealth not only to this district, but to the colony at large. In a few years, I said to myself, instead of the wilderness, we shall have the dwellings of men; instead of a few birds, now its only inhabitants, we shall have a busy population of miners enlivening the country; the shriek of the locomotive will resound through its valleys, and busy life and animation will everywhere be seen. The harbour will be the resort of numerous colliers, and an active population will replace the inert savages who now occupy the pah. The Grey district, possessing easy communication with other parts of the colony, will, I hope, soon be peopled, and its farmers find their market amongst a mining population. I may be pardoned if instead of reporting mere fact I have here given way to my feelings, but I conceive that the most matter-of-fact man would become imaginative when standing upon a spot containing such a vast store of mineral wealth.

139. That in the same year, 1860, the Native title to all the West Coast land was extinguished by purchase, and surveys were commenced, followed by the arrival of settlers. Certain areas were set aside as coal reserves on both sides of the river, but it was not till 1865 that mining was commenced, about which date the Nelson Provincial Government granted a lease to a Ballarat company, which, as one of the conditions, was required to construct a railway to connect with the Port of Greymouth. The company, however, only made a horse-track along the north side of the river, and continued to convey the coal to the seaport in barges. These barges were towed up stream by horses, and enormous damage was caused by the destruction of the banks of the river, due to the cutting of the towing-paths, widening the channel of the river to a great shingle-bed, and thus supplying the shingle-bars that are continually on the move down stream, and add to the cost of the harbour-works. Owing to this company's failure to fulfil the conditions, the lease was cancelled, and for a few years the mine was worked by the Nelson Government, and subsequently leases were granted of various portions of the coal reserves, as has been already described in this report. The reserves made include only the portion of the coalfield which lies on the seaward side of the coast range, and all the other coal-areas are included in the selection area which has been hypothecated to the Midland Railway Company.

140. That the geological formation containing the coal-seams belongs to the Upper Cretaceous period, and consists of mica-sandstones, quartz-grits, and conglomerates, having somewhat irregular stratification, but rising in an easterly direction to a height of 3,000ft. in Mount Davy. To the west, the formation dips below the sea-level with a cover of about 300ft. of tough ferruginous sandstone, known as the "island sandstone," followed by about 500ft. of septaria clays, greensands, and chalk-marls, which pass upwards into the limestone 700ft. thick that forms the bold range of hills that is intersected by the Cobden Gorge. The extent of the coalfield parallel with the coast is about twelve miles to where it is cut off by the slate and granite. The general arrangement of the formation can be best understood by reference to the following section and to the general map attached to this report.



Section, Greymouth to Brunnerton. *a-d.* Upper marine members of the Cretaceous-tertiary. *e.* Island sandstone. *f.* Upper or pitch coal. *g.* Lower coal, bituminous. *h.* Conglomerate. *s.* Slate.

The total area of the coal reserve on the north or Nelson side of the Grey River is 10,331 acres, and on the south or Westland side 3,015 acres, and the whole of these areas is at present held under lease.

141. That the condition of the workings at the present time is as follows:—

142. The Brunner Mine leasehold has an area of 1,280 acres, of which 183 acres has been worked, and yielded 778,325 tons, and the average yield per acre before any of the pillars were removed was 6,000 tons. There are several seams, but only the main seam has been opened on. It dips to the west, and the boundary of the leasehold in that direction appears to have been laid off with the view of securing only the portion of the seam which could be worked to