

manner of fantastic shapes. There is hardly a mile of these tracks where spots cannot be found in which fifty men could with ease stop one thousand. The sides of the hills are, with few exceptions, clothed with thick bush, but rarely carry timber which would repay the cost of floating it down in freshes.

Up the Waioweka and Otara is occasionally to be found a clump of fine manuka, but the best timber grows generally on the hills away from the river.

#### *Mineral Resources.*

If not for its mineral resources, the country of the rebel Whakatoheas and Ureweras is worthless.

It is, however, my firm opinion that these mountains contain within their bosom, mines which some day will add to the wealth of New Zealand.

I have already stated that quartz in small quantities is to be found in the Torere stream, and indeed in all the rivers about Opotiki. Whilst in command, I formed several prospecting parties, and though most of them were futile, yet the nature of the soil was such as to lead me to believe that further research would not be thrown away. In more than one spot we discovered thin veins of quartz permeating the slaty rock; in others, on sinking, we found a boulder formation much resembling the "dirt" of the Victorian alluvial fields; in others, we came upon a stratum of thick greasy yellow clay, adapted for potters' work, and a thinner layer of pipeclay. Everywhere washing invariably gave a residue of black sand.

#### *Ohiwha.*

But one spot, I thoroughly believe, will yet prove auriferous. Just before leaving Opotiki I was struck with the number of the quartz veins running through the rocks at Kohi Point (Whakatane Heads), and took some of my men to explore them. Whilst there, a Native informed me that if I wanted to find "kiripaka" he could take me to a spot where quantities of it existed.

Into the western end of the Ohiwha Harbour there falls a small stream, which we struck some two miles from its mouth, and which I named at once "Awa Kiripaka's." The bed was composed of huge boulders of quartz of all colours, from the milky-white to the brown, and I ascertained the existence of two reefs running through the hill into another stream. We could only knock off a few pieces, which, though good-looking stone, had nothing in them; and, since my departure, no further attempt has been made. Lately, however, a leading Whakatane chief has informed me that he believes gold-bearing quartz exists on his land, close to Puketi, the junction of the Waimana and Whakatane. From his description I gather that it must be in a stream running towards the Ohiwha, possibly connected with the one I explored. He wishes me particularly to see it, and offers me an escort. He says the land is his, and that he is willing to throw it open at once, but I have ascertained that the whole of the block still belongs to the Government.

Up the Waioweka, in a stream running from Pukenui Oraho, I have found indications of coal.

In many places the rock over which the springs run is coloured to a deep red by an incrustation of a ferruginous matter, and heavy ironstone is common.

Copper ore will also, I believe, be discovered, as I have seen several specimens, and one piece I picked up near the Ohiwha had visible signs of it.

#### *Waioweka and Whakatane.*

In our last march through the Urewera country I heard that some of my men had come across good specimens, but I had other things to think of. I have, however, at Tauranga, been shown a piece of gold-bearing quartz said to have been picked up in the Ruatahuna. From the slaty character of some rocks I hurriedly examined, I think it is probable that the specimen came from its represented position.

I regret that, in my last march in the unknown Urewera country, I had not leisure to attend to the botanical and other features of the country. One peculiarity struck me. From the highest peak we ascended, the Wharau, we could see the different ranges, broken in themselves certainly, but still keeping, each as it were, a distinct character, and all trending towards Whale Island, like the spokes of a wheel to the felloe. Everywhere where the country opens out are traces of a former subsidence and subsequent elevation. In some places the terraces are clearly marked out,—in others, the rounded outlines of the bases of the hills attest the influence of water, and that so distinctly that there can be no doubt that, at a geologically recent period, all the valleys of the Bay of Plenty were estuaries which have been filled up by elevation and by the detritus brought down by the rivers from the interior. The Tauaroa Plain, for instance, is evidently the bed of an ancient lake; but the absence of shells in the pumice-sand shows that the showers overlying it, to the depth of some thirty feet, fell on it after its emergence from the waters.

The scenery of the Urewera is grand and wild, and a tourist or a geologist would have been delighted with the excursion I took under circumstances not favourable to a search after the picturesque.

Should my conjecture about the existence of gold at Whakatane prove correct, the Government must benefit largely. The land in the neighbourhood is all Government property, and townships have been laid out at Ohiwha and Whakatane, and remain yet unapportioned.

Ohiwha is bound to become the harbour in such a case. I have been over the bar with fourteen feet of water on it.

The Whakatane River is dangerous, on account of the rocks at the entrance, the narrowness of the channel, and the swiftness of the current. Were the rocks blasted away, it is believed a sandbank would soon accumulate.

#### *Te Teko Tawaroa and Kaingaroa Flats.*

From the Whakatane Valley the hills sweep round to the westward, bounding the Teko swamp, and turn again to the southward, at the spot where, in former ages, the inland waters which covered the Tauaroa Plain burst forth through a rocky defile into the estuary, now partly consolidated, which