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## APPENDIX No. 3.

## GEOGRAPHICAL SURVEYS.

THE TRIANGULATION OF THE KING COUNTRY, AUCKLAND. REPORT by District Surveyor Lawrence Cussen.

In compliance with your instructions, I have the honour to report on the general character of the

land in the King country over which my survey extends.

To illustrate this report a map showing the natural features of the country has been hastily compiled. The area included is 2,100,000 acres—that is, all that portion of the King country within the Provincial District of Auckland. For the purpose of description, I have divided this area on the map into three classes of land. The first class is that which has the greater part of its area good agricultural land; the second is more broken, and is better suited for pastoral purposes; and the third class is chiefly very broken or poor country, and has a smaller proportion suitable for settlement.

The first-class land lies within the open country through which the Waipa and Mokau rivers, with their tributaries, flow. The area is about 390,000 acres, more than one-half of which is good

agricultural and the remainder good pastoral land.

The second-class is chiefly in the limestone country to the west of the Mokau and Mangapu rivers, and on the plateau which lies between the valleys of the Mokau and Ongarue. Its area is about 724,000 acres; the greater part of this is capable of being made good pastoral land, and here

and there throughout it there are small patches suitable for agricultural purposes.

The area of the land which I have called third-class is about 986,000 acres. It includes the high wooded ranges of Hurakia, Hauhangaroa, and Rangitoto, the rugged mountainous country on the West Coast between Kawhia Harbour and the Mokau River, and the pumice-plains in the valley of the Ongarue and on the west side of the Waikato River. Here and there throughout this large area might be found arable patches, and a great deal of it is capable of being converted into pastoral land; but in the present state of the farming industry throughout the country, and while better land can be had cheap in more accessible places, this will be valued more for its timber or the minerals it may possibly contain.

The area over which limestone outcrops occur is about 493,000 acres. This includes a portion of the agricultural district in the Mokau Valley and a portion of the pastoral land already referred to. I consider it is the best land for general settlement purposes in the King country. There are outcrops of brown coal in many places throughout the limestone formation, which are shown on the map; and since the same formation extends southwards from the Taupiri coal-mines by the Hakarimata and Hauturu Ranges to Mokau, where large deposits of a good class of brown coal have been opened up, there is good ground for hoping that valuable coalfields will soon be developed in this district. The clay underlying the limestone formation would also encourage the hope that iron may be found in this locality.

iron may be found in this locality.

Having thus given you an outline of the general character of the land comprised within each of the three classes, I shall now endeavour to describe in detail the various parts of the district in

regard to the inducements they offer for settlement.

Taking first the open country adjoining the settled districts of Waikato, and including all the open valley through which the Puniu and Waipa rivers and their tributaries flow, extending eastwards to the Waikato River and southwards to Hangatiki, or about eighteen miles in a direct line from Kihikihi: This valley contains about 275,000 acres all well adapted for settlement, about two-thirds of it being arable and the remainder chiefly good pastoral land. The character of the soil is for the most part a volcanic loam, with considerable alluvial flats along the rivers. These alluvial flats are derived partly from the limestone formation drained by the Mangapu River, and partly from the marl formation on the Rangitoto Ranges, through which the Waipa River flows. In the centre of this valley the land is flat or undulating, excepting the volcanic cones of Kakepuku, Te Kawa, Puketarata, and Taurangakohu, which are admirably suited for pastoral purposes, and on their lower slopes are most beautiful homestead-sites, commanding grand and varied prospects of the surrounding country. Approaching the bush on the south and west sides of the valley the land becomes more broken, cut up by flat-bottomed gullies into fern ridges, which run from the forest ranges: these gullies will afford considerable areas for cultivation, while the fern spurs would make excellent pasturage. The height of the valley generally is from 200ft. to 500ft. above the level of the sea; it lies well, receiving shelter from the southerly winds by the high wooded country to the south and south-east; the climate is excellent, grapes ripen freely in the open air. The valley is all well watered by the Waipa and Puniu and their tributaries. Communication can be easily established with the Main Trunk Railway, which traverses the valley, and with Te Awamutu, Alexandra, and Kihikihi. At Otorohanga there are 1,300 acres of kahikatea or white-pine bush, close by which the Main Trunk Railway passes: thus a large supply of useful building-timber for the district is

The country is covered generally with a high vegetation of fern and scrub, which grows very luxuriantly; but it is somewhat remarkable that here clover and English grasses do not seem to thrive well along the tracks and in the clearings where cattle have been running for years, whilst in the limestone country further to the south both clover and grass are seen plentifully growing by the

tracks and amongst the fern.

Towards the Hauturu Range, on the west side of the valley, a strip of the limestone country comes in, extending from Hauturu to Hangatiki, being about seven miles long by three miles wide. It is partly forest and partly open fern ridges, with flat-bottomed gullies between them, where the Natives have largely cultivated. This is fine pastoral land, and a good portion of it along the valley would be suitable for cultivation; it has been a splendid fruit district, but the trees have been destroyed by cattle, and the prevailing blight has killed out the peach-trees.