Enclosure 12 in No. 1.

MEMORANDA by Dr. HECTOR about the Country at Tongariro, Rangipo, and Patea.

29th November.—Snowed up in the Rangipo Valley. Snow deep on the mountains, and lying on the plains at their highest level in the dividing line between the Waikato and Rangitikei Rivers. Altitude, 3,200 feet, so the district must be a very exposed one to have such weather at this season. Natives say that in winter the snow is never more than 2 feet, and only lies for a week or two at a time, but lower down only for a day or two.

Rangipo Run.—I enclose sketch of the country, roughly done, on a scale of about eight miles to

the inch

Good natural grass-land, coloured yellow; poor natural grass-land, coloured brown; bush, coloured

dark-green; worthless, left blank.

Soil, volcanic. Partly pumice, but of a richer kind than near the lake. The rest of rich feruginous tuff or ash beds, and the washings from the scoria deposits. In the good portions the grasses are good, and of five kinds chiefly. Best pasture is in the Rotoaira Valley and spurs of Tongariro, for a distance of eight or ten miles south. Towards Waikato River, and for whole width of the Rangipo Plain south of this distance, the pasture is very much inferior; towards the river being scrubby and only the light-yellow subsoil, and south, where it is high land, the prevailing grass is the big red snow grass, that grows in tussocks 12 inches through, and 2 to 30 inches high, and as harsh as bent grass. Great part of the surface wet moorland, covered with dwarf subalpine shrubs, and can only be reckoned as summer feed. The greater part of the valley near the snow line, and all the spurs between Tongariro and Ruapehu utterly worthless. The country may improve some distance to the south after crossing the desert, which is seven or eight miles.

From Rotoaira Valley along the Waikato, west side, down to the lake, there is a narrow strip of good country, but a deal of fern and scrub in most places. Towards the outlet of the river the land is rich alluvial, with rank soft pasture only fit for cattle, except a narrow strip on the spurs of the hills. On the east side of the Waikato, above Rotoaira, there are some fine rolling pumice terraces, but soil light, and pasture ditto. Above the same point the bush of the Kaimanawa Range descends to the river until the head of the plains is reached, when the bush disappears, and the land is clear right over

the mountain tops, and will make capital summer pasture.

I consider the area of good country in the Rangipo has been very much over-estimated, and there is hardly too much for one good run, and certainly not more than for two. This is, of course, not including the Patea country. Besides, the Natives will not lease the best land near Rotoaira, which they wish to keep for their own use. To be able to use the spurs of Tongariro, it is absolutely necessary to have the land near the lake, however, and it would also be well to secure all the country on the slopes of the hills west side of the Waikato down to Lake Taupo, and to buy certain parts of the rich land near the mouth of the river, as there is sure to be settlement there when the country is opened up.

Taking the previous boundaries, and extending the run down to the west side of the Waikato to Lake Taupo, there are not more than 50,000 acres of first-class pasture, and 120,000 acres second-rate, remainder only partially available in fine seasons during a few months. By crossing the Waikato, and taking in the downs near the mouth of the river towards Waimarini and the open part of the Kaimanawa Ranges, the area of second-class land would be about doubled, but hardly any added to the

first-class land.

As to access, I think there must be a good pass from Patea to Napier, between the Kaimanawa and Ruahine Ranges, as a half-caste came through that way the other day with a horse in a day and a half, and knew nothing of the country before. The road to Rangitikei is sure to be open some day. They say it is quite level; no bad creeks, and only three days through the bush. The access to Lake Taupo is quite easy, so that, on the whole, there is no difficulty on that score.

2nd December—Patea Settlement: I re-open my letter to say that I have now seen the Patea country, and to enclose a sketch of it. It is by far the best sheep country I have seen here. The whole extent of open land is not far short of 500,000 acres; and cut into very convenient blocks by streams, that form good boundaries. It is a perfect sheep country, according to my notions, although the grass, in many places, is not so rank as in the small patch about Rotoaira. The nature of the grasses is the same as in the middle district of Otago. The wooded part of the Kaimanawa Range is only a narrow strip facing the Rangipo Plain and the Taupo Lake. They form a crescent—the Kanuku towards the triangular space thus formed to the east, and the whole of the included space; and south to the edge of the bush, a distance of twenty miles, and west to the bush line along the west bend of the Wangaehu, is available country, ranging in altitude from 5,000 to 1,800 feet. With few exceptions, the sample seen along the Patea tracts gives a poor impression; and I do not think that more than one or two white men have been the way I went. As for the tract usually travelled towards the Wanganui River, that keeps over the spurs of Ruapehu, and conveys the impression that the country is a desert.

I turned the south part of the Kaimanawa Ranges, and took the horses half a day, and camped in a beautiful valley on the Moroowhango—the middle head stream of the Rangitikei. I then went due east on foot, on the ranges, which, though pretty high, are such that you could take a dray over to where the country begins, and get a view of the country towards Hawke's Bay. The distance is nothing to Napier, and I am sure you could ride easily to it in a day from Waipukurau. This is a perfect table (2,300 feet) land, cut by valleys at the back of the Ruahine and Korueka Ranges, and completely cutting them off from the Kaimanawa Range. There may be a sharp drop from this down to the Napier level, but, even if so, you could dray up to it, and drive drays on the table land, and pack

for a short distance.

I found Birch at the Patea Settlement, negotiating for a piece of the open country—I think, from native report, from Rangitikei to the base of the Ruahine Range. You should ride up this way as soon as possible, and try to get the block to the west of the Moroowhango up to the branch of the Wangaehu