You will perceive from the accompanying tracing, that the "springing out" from the base is performed by means of a quadrilateral, the smallest angle of which is over 34deg., whilst the largest is under 87·00. The diagonal of this quadrilateral is about 9575 links long, and forms a side of the principal polygon within the block, that round Pukehuia.

The observations at each of the stations have been made with a Troughton and Sim's transit divided to 30min. I have adopted a mean of eight readings at all the principal stations, and a mean of four readings taken on different parts of the plate at the rest.

I found in making my field computations for the purpose of checking traverses, that the three observed angles of a triangle seldom differed 10sec. from 185min., and that the error never exceeded one link in closing on the first side of a polyglon in quadrilateral, which will of course be easily distributed by "seconds" correction on recomputing my work here.

As the triangles are all well-conditioned, I do not expect that the distance between stations obtained from my present base will differ more than two links in a mile from the determination of the distance between the same points obtained whenever major triangulation is carried over this portion of the district.

I need hardly point out that the present trig., if it fulfils this test, will be easily incorporated with the major triangulation by use of a small constant log.

The block will not, as I have already informed you, contain more than 12,000 acres, and is composed, for the most part, of rounding fern hills connected by low ridges. There would be no difficulty in making roads through the block, and good totara timber is to be found in all the bushes. The lower portion of the valley of the Turakina, forming the western boundary of the block, is mostly bush. The Kauaekeke ridge forming its southern boundary rises more abruptly than most hills in the block, and, with a little clearing on its south side, the points on it would form useful trigs for the adjoining Okaka survey.

Owing to most of the Natives deserting us during the survey, I induced Winiata, who remained with us, to allow me to triangulate the southern boundary, and I believe that a saving of at least three weeks was effected by not cutting the boundary which ran over many rugged points. The angles on this boundary have all been pegged with 6 inches x 6 inches heart of totara pegs, and Mr. Annabell has instructions to put in direction pegs before returning to Wanganui.

I left Te Ruanui upon completing the triangulation on the 28th of June. At that time Messrs. Buscke and Annabell had each about a weeks' more traversing to do before closing on points fixed by myself. That on which Mr. Buscke closes, is marked on the plan "Te Rere-a-maru," whilst Mr. Annabell closes on the point marked S.E. Bdy. I have furnished them with the meridian distances of these points to enable them to check their traverses before returning.

I would here notice the steady perseverance with which Messrs. Buscke and Annabell carried out the portion of the work alloted to each during an inclement season of the year, and I hope to feel warranted, on Mr Annabell's return, in asking you to recommend an increase of his salary. As I have, however, other representations of a similar nature to make, I will write a separate letter on this subject.

I have already noticed the severe weather experienced during the survey of this block, the snow was often from six to eight inches deep, and succeeded by severe frosts, only terminating when a warmer wind brought rain. Between the ninth and twelfth of June, five out of seven Natives employed left us, assigning the severe weather as the cause for their doing so, whilst we could only obtain in their places one other Native, a very old man, to assist us. We were, in fact, so short handed, that I had generally to visit trig stations alone, carrying my somewhat heavy theodolite myself.

Winiata, one of the natives deputed by the rest of the claimants, remained, together with a nephew of his, to the end of the survey. Teoti Pohe, also deputed to point out boundaries, left us on the 9th of June and did not return.

The above-mentioned causes—all, as you are aware, anticipated by myself—together with the difficulty of packing provisions over excessively muddy tracks, and the shortness of the days, caused the survey to take at least twice as long as it would have done at a more favorable time of the year.

I would point out, as the result of several winters' survey, the unreliability of Natives during inclement weather whenever winter surveys prove necessary; it seems to me desirable to employ Europeans as much as possible. Owing to the greater altitude of this portion of the island, its proximity to snowy mountains, and distance from the sea coast, the winter generally sets in earlier and lasts later than it does near the coast.

I should consider this block, together with lands lying eastward and northward, well adapted for grazing purposes. Native cultivations here as elsewhere are generally cleared on the edge of bushes; potatoes seem to produce a good crop, and oats are sometimes grown in small quantities in their cultivations.

Te Ruanui block is on the very southern edge of the open country; a broad belt of bush extends from its boundary to the back of the settled districts on the West Coast. The Okaka block to its south, which may form one of the first surveys next spring, appears to consist wholly of broken bush.

I estimate the cost of surveying this block at £185, including in this sum only the cost of field work, viz. my own, and Messrs. Annabell and Buscke's salaries and men's pay. Part of the delay which occurred at Murimotu had nothing to do with this survey. The cost of the work would have been increased by £40 if the Natives had insisted on the south boundary being cut, and would have been diminished by a similar sum if they had allowed me to triangulate the northern boundary whilst an equally accurate survey would of course have been obtained. This cost, which does not amount to