

Mr. Wilson reports as a probable explanation of the difference between some of the results that the angles were not all taken under the same conditions, as on several occasions the top of the mountain was covered with snow, whilst on others it was entirely clear. All the observations, both of the major and minor triangles, were taken with a 6-inch Troughton & Simm's transit theodolite.

*Rural and Section Survey.*—The returns show under this heading that 16,532 acres of section survey, in 20 sections, and 2,993 acres of revision surveys, in 44 sections, have been completed during the year, in detail as follows:—Seven sections (80½ acres,) at an average cost of 1s. 6d. per acre, principally bush, surveyed on application for auction, or for selection under the deferred payment system. Eight sections (13,127 acres,) Awatere Shearing Reserve Block, partly open and partly manuka scrub, at an average cost of 4½d. per acre. Two sections (2,000 acres,) Endowment Block for the Borough of Picton, at an average cost of 10½d. per acre. (The major portion of these sections is covered with heavy bush, and a great deal of preliminary work had to be done in setting out street lines and establishing the town boundary on the one side, and clearing hill tops on the watersheds forming the boundaries on the other sides, thus adding to the expense of survey.) Forty-four sections (2,993 acres,) of revision surveys, principally bush, at an average cost of 1s. 1d. per acre. (The above are mostly detached sections scattered about in the various bays of Pelorus Sound, the average cost includes traverses and sub. trig. connections with trig. points.) Three sections (601 acres,) open country, adjoining old surveys, at an average cost of 1s. 5¾d. per acre.

*Gold Mining and Mineral Lease Surveys.*—Of gold mining surveys 123 acres in 9 sections have been surveyed at an average cost of 14s. 8d. per acre. These gold mining surveys are in the Wairau and Pelorus Mining District, at Deep Creek, and Dead Horse Creek, in the Wakamarina Valley, and one section of 280 acres mineral lease survey at Shakspeare Bay, Queen Charlotte Sound. Surveys of this nature generally detached, of small area and in an inaccessible rough country, requiring survey as applications are sent in, entail long journeys and much loss of time, hence their greater cost over ordinary section survey.

In this district, surveys of this character have been limited; private authorized surveyors, therefore, are employed to execute them, as requisitions come in from the warden. Of late, however, the discovery of quartz-reefs in the Wakamarina Valley is attracting the attention of the mining community to the locality, and an increase of this class of survey may be anticipated during the current year.

*Road and Railway Surveys.*—No roads have been surveyed during the past year for the purpose of opening up Crown lands; but a separate report will inform you of the actual roads constructed tending to open up lands for settlement, the cost of which is not borne by the survey votes. The only survey undertaken in relation to railway survey is that of the Picton and Hurunui Railway extension (to Vernon) land plans survey, 4½ miles. As it was very desirable to at once put this survey in hand, upon receipt of your instructions, an authorized surveyor was engaged to do the field work, the office undertaking the plotting and preparation of the plans, &c., as the field work progressed, to expedite its completion as speedily as possible. Part of this survey runs through streets and quarter-acre allotments in the town of Blenheim (subdivisions of private lands, no proper survey plans existing to refer to, and very sparse information to guide the surveyor, obtainable, some few measurements only, but no angles being given), which have been partly laid out from time to time in a disjointed manner, so that a very large amount of extra work had to be done in determining the true positions of street lines and allotments passed through. The remaining part passes through rural lands ten (10) sections of which, some 1,500 acres, requiring reconstruction, before correct positions of lands taken in relation to section boundaries could be ascertained. With the exception of two old marks, all traces on the ground of the original survey of these sections are obliterated. These are some of the difficulties, well known to yourself and professional men, the department has to deal with, of which the general public have no conception.

*Other Work, &c.*—The details given in the accompanying returns under this heading, show miscellaneous work not returnable, in the general return of field operations; they consist of sub-triangulation, 9,440 acres, at 1d. per acre; 1,500 acres revision surveys partly executed, and work done for other departments, &c., such as Crown Lands, Public Works, Mines, and Marlborough County Council, and Blenheim Borough Council.

*Office and Land Transfer Work.*—Within the twelve months 26 plans have been received, checked, and the majority plotted on their respective block sheets, of which 17 have been constructed during the year, besides additional work having been put on those previously constructed. Four Crown grant record maps have been constructed, and the recording on these completed up to date. These are confined to town and village maps, the rural ones remaining in abeyance until trigonometrical connections are more advanced. Thirty-two application maps have been made for the use of the Land Office and general public. These are mounted lithos. of each survey district, with general topographical features and nature of land tenure shown thereon, and comprise the whole of the Marlborough district, with the exception of Gore survey district, the lithos. of which have not yet been received. It is needless to say they have proved very useful in reducing the number of tracings that would have otherwise to be made. Triangulation district sheets have been traced for photolithography of Mr. A. D. Wilson's major and minor triangulation of parts of Cloudy Bay, Linkwater, Arapawa, and Gore survey districts, and of Mr. R. F. Goulter's minor triangulation of parts of Linkwater, Arapawa, and Oriieri survey districts. Land plans of the Picton and Hurunui Railway, Blenheim to Vernon contract, have been constructed; and plans of the Awatere shearing reserve survey made and forwarded to be lithographed. In addition, the usual calls of the Crown Lands Office have been responded to in the preparation of diagrams of gold mining leases, deferred payment, pastoral, mineral, and timber licenses, &c.

*Land Transfer Work.*—Owing to there having been no draughtsman in the Land Transfer Office, through the illness and subsequent death of Mr. Carey, much more work in connection with this department has been put upon the Survey Office staff—in fact, so much has this been the case that