

1880.

NEW ZEALAND.

SURVEYS OF NEW ZEALAND.

(REPORT FOR 1879-80).

Presented to both Houses of the General Assembly by command of His Excellency.

TO THE HON. THE MINISTER OF LANDS.

General Survey Office,

Wellington, 9th August, 1880.

SIR,—

I have the honor to report on the operations of the Survey Department for the twelve months ended the 30th June, 1880.

During the first four months of this period, the late Surveyor-General, Mr. John Turnbull Thomson, continued to direct the surveys. He retired on the 31st October, 1879, at which date you did me the honor of placing the surveys under my charge. In connection with these changes, it ought to be recorded that the organization of the Survey Department and the system of survey are those of Mr. Thomson, which, having received the approval of Government, are still continued without any material change.

In the Appendix will be found a map showing the progress of the surveys up to the 30th June last, with reports from the Chief Surveyors on the surveys in each of the ten land districts of the colony for the twelve months ending on that date. For easy reference these reports are arranged geographically, beginning with Auckland, the most northerly.

The out-turn of work, put in short compass, is as follows:—

Nature of Work.	Area.	Rate per Acre.			Cost.		
		£	s.	d.	£	s.	d.
Major Triangulation ...	566,723 acres	0	0	0·98	2,319	10	4
Minor Triangulation, without Topography ...	1,204,905 „	0	0	1·12	4,822	15	6
Minor Triangulation, with Topography ...	2,379,018 „	0	0	1½	16,125	19	0
Rural and Suburban Section Surveys ...	925,838 „	0	1	3·2	56,180	3	1
Town Section Surveys ...	2,578 allotments	0	16	4·8 (per allot.)	2,136	17	1
Native Land Court Surveys ...	106,803 acres	0	0	2·6	1,102	8	7
Native Land Purchase Surveys ...	939,449 „	0	0	2·2	8,367	14	7
Gold-mining Surveys ...	2,629 „	0	11	11½	1,569	7	3
Road, Railway, and Water-race Surveys ...	709½ miles	9	19	9 (per mile)	7,281	3	0

TRIANGULATION.

Under this designation 4,150,646 acres were completed, and maps and computations returned to the survey offices during the year. The primary object of this work is to furnish starting and closing points for the sectional settlement surveys. As is well known, traverse surveys built on each other, no matter how carefully each individual survey may have been made, lead to accumulation of errors which in large operations soon become uncontrollable and inexplicable. The