

REPORT.

SIR,—

Geological Survey Office, Wellington, 28th July, 1909.

I have the honour to present to you the third annual report (new series) of the New Zealand Geological Survey.

I have, &c.,

J. M. BELL,

Director Geological Survey.

Hon. R. McKenzie, Minister of Mines, Wellington.

INTRODUCTION.

DURING the season 1908–9 the Geological Survey has conducted surveys, both topographical and geological, in many parts of New Zealand.

The present report deals with the year commencing on the 1st June, 1908, and ending on the 31st May, 1909.

SUMMARY OF OPERATIONS.

During the season just closed work has been conducted by the Geological Survey in several parts of the North and South Islands.

The survey of the Whangaroa Subdivision in North Auckland, commenced in July, 1907, was finished in November, 1908. A detailed bulletin on this interesting area, which contains deposits of copper, mercury, and iron, and other features of economic interest, is now in the printer's hands.

A comprehensive investigation of the Thames Goldfield and of the adjoining survey districts of Hastings, Thames, and Waihou, known as the Thames Subdivision, was commenced in November, 1907. The work was continued throughout the past season, and has just been completed. The exhaustive examinations revealed many features of great economic interest in connection with this interesting and formerly highly remunerative goldfield. Mr. Fraser, under whose direction the work has been conducted, will prepare a report thereon during the present winter.

In October last Mr. K. M. Graham commenced the topographical survey of the Waihi Subdivision—lying just east of the Thames Subdivision. Perhaps no one area in New Zealand requires more careful investigation. The area, which comprises the survey districts of Whitianga, Tairua, and Ohinemuri, contains the mining-fields of Tairua, Waihi, and Karangahake.

The survey of the Whatatutu Subdivision—a portion of the Poverty Bay Oilfield—started in January, 1908, is also just finished. The detailed bulletin by Mr. J. H. Adams on this area will contain much of value to those interested in the geology and technology of petroleum-fields in New Zealand.

A systematic investigation of the Dun Mountain Subdivision, which includes the City of Nelson, and comprises the survey districts of Waimea and Maungatapu, was commenced in October last, and the work thereon is now nearing completion. The area contains the chrome and copper deposits of Dun Mountain and the Aniseed Valley, and the widespread Tertiary strata with coal-seams that lie along the north-western base of the Aniseed Hills.

In Karamea, topographical surveys have been continued throughout the year; but, though the work has been considerably advanced, much still remains to be done. Very little geological work has as yet been accomplished; but, as will be seen by a perusal of Mr. Richardson's brief report in this statement, an extensive coalfield with several seams of an excellent sub-bituminous coal has been located.

The Geological Survey party under Mr. E. J. H. Webb, which has been operating in the Mount Radiant copper-molybdenite field since the beginning of 1908, has almost completed its examinations.

The survey of the Greymouth Coalfield and of the Kotuku Oilfield—both in the Greymouth Subdivision—was commenced by Mr. P. G. Morgan in November last, and has been prosecuted continuously ever since. The work has advanced rapidly, but it will take at least another field season to complete.

Investigations were conducted by myself at the Franz Josef Glacier during the month of February, my object being to add some necessary geological data to the topographical work carried out at this remarkable glacier during the previous season by Mr. R. P. Greville.

Professor P. Marshall was again employed on the staff of the Geological Survey. His examinations during the past season lay in the Dun Mountain Subdivision, where he worked during the months of December, January, February, and part of March.

In addition to the detailed investigations above mentioned, a reconnaissance was made by myself and Mr. E. de C. Clarke to the North Cape, and somewhat cursory examinations were also made of coal-bearing strata near Belgrove, and near Tadmor, Nelson.

PUBLICATIONS.

Last year the second annual report of the Geological Survey was issued. This publication contained an account of the operations of the survey during the season 1907–8. In addition, Bulletins Nos. 6 and 7 were issued.

Bulletin No. 6, written by Mr. P. G. Morgan, describes topographically and geologically a portion of South Westland known as the Mikoñui Subdivision.

Bulletin No. 7, entitled "The Geology of the Queenstown Subdivision, Western Otago," was written by Professor James Park as the result of field-work done during the season of 1907–8.

In all, approximately 2,100 copies of the bulletins were distributed, and about 800 copies of the second annual report.