

Dam-sites were examined and, whenever necessary, re-examined at Karapiro, Maraetai, Clarence, Waitaki, and Molyneux.

Limestones were reported on at Clarendon, Balfour, throughout Southland, Ruatangata, View Hill, Cape Foulwind, and Te Kuiti.

Serpentine was examined at Harper's, Gordon's, and Maungaturoto.

Terrazzo materials were reported on by Mr. Macpherson.

Water-supply was investigated at Hawera, Otahuhu, Plimmerton, Foxton, Upokongaro, North Auckland localities generally, Blenheim, Picton, Ashburton, and Stewart Island.

Mr. Modriniak's geophysical investigations have been carried on at Karapiro, Maraetai, Chateau Tongariro, Maungaturoto, and Kakahi.

The Silvia Mine, gemstones, concrete aggregate, concentrates, railway ballast, and road metal have been investigated.

Two expeditions in the "New Golden Hind" examined Fiordland.

Mr. Healy, Vulcanologist, has taken up his duties at Rorotua and will report on utilizing the hot water and steam.

Ruapehi volcano was kept under observation while in eruption, and in spite of many alarming reports no occasion arose for removing the people.

MINERALS EXAMINED BY DOMINION LABORATORY DURING YEAR ENDED 31ST DECEMBER, 1945

The number of scheelite samples analysed (45) was less than in 1944 because of the withdrawal of the Government control of marketing. Assays for gold and silver also declined somewhat in numbers.

On the other hand, there was a great increase in the number of complete analyses of minerals separated in the pure state by the Geological Survey. Minerals tested for the possible presence of uranium were thorite, chromite, garnet, monazite, ilmenite, sphene, and allanite.

Wanganui ironsands from both beach and dune deposits were analysed for the iron content of their magnetic and non-magnetic fractions.

Some 75 limestones from east coast districts were examined for lime content (for Native Department).

Serpentine from the newly opened quarry near Te Kuiti was tested for suitability for use in superphosphate.

In connection with the eruption of Ruapehu, the lava was analysed and the dust was examined for acidity and corrosion effects.

The examination of mine dusts for minerals injurious to health was continued.

Many other mineral samples were examined for identification.

A systematic examination was made of clay deposits from several districts.

Coal Survey.—The field staff appointed by the Geological Survey, working with officers of the Mines Department prospected coal-bearing areas in various parts of the Dominion, notably in the bituminous coalfields of the west coast of the South Island.

In all, 218 samples from bores, outcrops, or mines were analysed in the Dominion Laboratory. Samples of mine air were examined for methane carbon monoxide and carbon dioxide.

DRILLING OPERATIONS

All the diamond drills owned by the Department were in constant use during the year, and whenever possible, with the object of speeding up exploration, three shifts per day have been worked. The previous shortage of experienced drillers has been lessened by the employment of the older drillers as foremen, thereby assisting in training drillers and helpers as speedily as possible.

During the year there have been no serious or fatal accidents, although, because of the hazardous occupation, there have been some reportable slight accidents.