

The whaling-station at Tory Channel was visited twice during the last season to obtain oil samples for analysis from the blubber, bone, meat, and liver. An officer of the Laboratory was seconded to the Department of Scientific and Industrial Research, Great Britain, for work on the whaling research vessel in the Antarctic. First-hand knowledge will thus be gained for application in the local industry.

Miscellaneous projects have included studies on the oil extracted from horse and eel flesh, also neat's-foot oil and wheat-germ oil.

GEOLOGICAL SURVEY

MAPPING AND GENERAL

In North Auckland new areas have been mapped. By the discovery of more fossils it has been possible to revise the stratigraphy and show that some districts previously regarded as barren areas below the coal measures are possibly lying over and hiding the coal measures. When the geological structure is known in detail, problems of water-supply will be simplified.

The Pahotai copper has been mined and drilled, but has not been found in a large mass.

Further investigation and mapping has been carried out in a number of districts, including the Wanganui area, "mineral belt" of Nelson, Oamaru, West Southland, and Otaihangā (quartzite and greensand). High-grade glass-sands have been sampled at Parengarenga and Mount Somers.

The coalfields of North Auckland, Reefton, Greymouth, Murchison, South Otago, and Southland have been investigated continuously and the latest information from field-work, drill-holes, and mining has been compiled, tested, mapped, and used to guide further work; but, due to the loss of trained personnel, work cannot be planned ahead. It has to be done in haste to meet immediate needs.

Diatomite has been examined near Taumarunui and Hawera.

Bentonite and pozzalana were sampled in the Wairarapa and the East Coast.

Dams, tunnels, roads, quarry sites, &c., have been reported on for local bodies, Government Departments, &c.

VULCANOLOGICAL OBSERVATORY

Vulcanology and thermal activity are being investigated by collecting data on temperature, composition, acidity, pressure, volume, &c. The area is being mapped in detail.

A report on the "Utilization of Natural Steam and Hot Water at Rotorua" has been prepared.

The Waikato dam-sites are inspected monthly from Rotorua, and special seismic equipment is being operated continuously at the dams.

WATER-SUPPLIES

One officer has been transferred from field geology and put in charge of this work.

Water-supplies have been reported on at Whangarei, Auckland, Cambridge, Three Kings, Rotorua, Rangitāiki, Wairakei, North and South Canterbury, Timaru, Waikouaiti, and Southland.

PALÆONTOLOGY

Field officers regularly send in collections of fossils for identification. These are used in the correlation of information on various strata and often have a most important bearing on the utilization of economic deposits.

PETROLOGY

Studies are being made on aggregates that react injuriously with cement and tests and examinations of building-stones, concentrates for radio active minerals, glass-sands, and miscellaneous specimens.