

MISCELLANEOUS

In connection with the utilization of horse flesh in Auckland, considerable supplies of horse-oil have become available. The composition of this oil is under investigation, and tests are being carried out to determine its drying properties for use in association with linseed-oil. Neatsfoot-oil is being investigated to test its suitability as a diluent for vitamin oil concentrates.

From time to time advice has been sought in connection with the vitamin A content of fish-liver oils and a number of determinations have been made. The accumulated material from earlier work on shark-livers is slowly being worked up as part of the survey of New Zealand fish-liver-oil resources. Work is also proceeding on the phosphatides of linseed-oil and on the constitution of the hexadecatrienoic acid recently isolated from rape.

GEOLOGICAL SURVEY

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During 1946-47, field geologists have been mostly engaged on urgent jobs, but have regionally surveyed and mapped parts of Motatau in North Auckland, Waitotara-Wanganui, d'Urville Island-Dun Mountain, and the so-called "mineral belt" of Nelson and the type locality of the Maitai Series, Moeraki-Oamaru type of the classic Oamaru sedimentary beds, Monowai, the most western continuous sedimentary beds of Southland. White Island was examined by two officers from 7th to 14th January and also visited again later.

The coal situation has demanded continuous work in the coalfields at Greymouth, Reefton, Ohai, and Wangaloa and occasional work at Kamo, Tatu, Retaruke, Burke's Creek, Pike River, Mount Davy, Paparoa, Blackball, and Elliotvale.

The limestones of Southland and the limeworks have been examined in detail, maps and a report having been prepared. The bulletin on the auriferous lodes of Reefton has gone to the editor. The natural gas at Greymouth has been reported on.

Problems in water-supply are becoming more and more urgent and require more investigation. If the geology of the district has been already done, it is easier to report on water-supply, but in many places scraps of evidence have had to be hastily searched for. Districts reported on include Opuā, Whangarei, and other parts of North Auckland, several parts of Auckland City and suburbs, Wairakei, Otahuhu, Mangatainoka, Blenheim, Picton, North Canterbury, Canterbury Plains, Goodwood, Southland, and Stewart Island. Hot-water supplies have been reported on for Helensville, Wairakei, Rotorua, and Maruia.

The activities of Ruapehu volcano have been investigated and shown to be waning normally. Not enough work has been done in New Zealand volcanology to predict what will happen.

Ironsands have been surveyed, mapped, and reported on at Wanganui and Waitara, and duplicate collections of 100 samples have been deposited at the Geological Survey.

Samples of all clays near Wellington have been collected, and samples have been also collected as required from North Auckland, Oamaru, Benhar, Hyde, &c.

Bentonites were sampled at Blue Slip, Oaro, Kekerangu, and Waipara. Those at Kekerangu were surveyed and mapped in detail.

Stone-quarries and outcrops have been reported on from many places, including North Auckland, Piako, Waikato, Bluff, &c.

Dredge concentrates, building-stones, gem-stones, numerous rocks, and minerals, &c., have been examined.

Dam-sites have been reported on by the geologists at Waikato, Waikaretaheke, Cobb River, Picton, Waitaki, Clutha, and are kept under examination. The sites along the Waikato have been continuously studied geophysically.

Data for engineering problems have been searched for at the dam-sites, Ohope Beach, Manawatu Gorge, Rimutaka, and Wanaka.