

At Glen Massey output has improved, 255,810 cubic yards of overburden being removed for a production of 62,733 tons of coal, as against 595,250 cubic yards of overburden for 58,715 tons of coal last year.

At Wangaloa, 114,712 cubic yards of overburden were removed, and coal-production amounted to 45,362 tons.

Work on forming access roads and stripping overburden commenced at Hillcrest in November, and to date 179,000 cubic yards have been stripped, exposing a good area of coal. Coal-production will be commenced early next year.

Late in the year plant commenced stripping at Rotowaro, and 21,800 cubic yards of overburden were removed, exposing about 6,000 tons of coal.

At McLeans Opencast Coal-mine at Ohai, departmental machines constructed a stop-bank with topsoil removed from the area and excavated 81,900 cubic yards of overburden and delivered 8,728 tons of coal to the screens.

At Mossbank Mine the machines hired to the Mines Department removed 14,580 cubic yards of overburden and shifted 2,450 cubic yards of overburden at three small private mines.

### LIGHTHOUSES AND HARBOUR-WORKS

*Lighthouses.*—Maintenance of lighthouses and plant has been carried out as usual. Renovations to buildings and quarters has been undertaken where necessary.

Construction of a new distribution line for connecting Baring Head Lighthouse with the public supply system has been commenced, and should be completed by the end of 1949.

Electrification and connection to public supply system is now completed for Nugget Point, Waipapa, and Moeraki Lighthouses.

Work is well advanced for the electrification of North Cape, Channel Island, and Chickens Island Lighthouses.

Installation of four new electric beacons at Lake Taupo is now nearly completed.

Installation of two new electric beacons at Whangaroa Heads and Tauranga is nearly completed.

Preliminary work has been commenced for installation of new electric beacons at Slipper Island, Cape Kidnappers, Ohau Point, Cape Farewell, and Bushey Point, also for electrification and radio-beacon installation at Tiri Tiri, East Cape, Portland Island, Godley Head, Tairaroa Head, and Dog Island.

Three new electric beacons at Motuara Island, Gibson Point, and Slope Point will be completed when equipment is received from overseas.

Concrete reservoirs with connection to the water-supply were completed at Centre Island Lighthouse and repairs were carried out at Waipapa and Dog Island Lighthouses.

At Cape Egmont a small electrically driven pump was installed to supply water to the house of the principal keeper.

*Harbour-works.*—By arrangement with the Wanganui Harbour Board the Department has been carrying out remedial work to ensure the safety of the South Spit, and the work so far has been successful. A length of 1,165 ft. of the heavy block wall on the river side of the spit has been capped with concrete 4 ft. wide and averaging 5 ft. in height. The rock wall between No. 1 red light and the crane wharf has been built up with rock taken from the Imlay training-wall. To protect the seaward side of the Spit a total of 1,980 piles has been driven, mostly in the vicinity of the weak section opposite the hulk "Mana." Sand has built up well behind the piles, but the work is not regarded as permanent protection.

Repairs to wharves at Tairua and Onekaka were carried out and authority has been obtained for improvements at Coromandel.

Investigations have been made into the extension of the tidal compartments at Westport and into the development of Tauranga Harbour for shipping exotic timber.