

months under review 46,753 passengers were carried, in addition to 71,681 tons of goods carried northwards and 63,690 southwards. The latter included 1,333 wagons of live-stock from this particular section.

Numerous slips occurred between Huarau and Portland as the result of the very wet weather in the winter of 1924, and their removal necessitated the employment of a number of work-trains and the construction of heavy stone drains and walls to drain cuttings and control the slips. The work has been completed except for minor subsidences, and the efficacy of the drainage was demonstrated by the subsequent cessation of slips. The whole length should be ready for handing over at an early date.

AUCKLAND—WESTFIELD DUPLICATION.

This important duplication work was commenced in March last, and is being vigorously prosecuted. It is 9 miles 67 chains in length, and there will be a double track for the whole distance. The maximum grade will be 1 in 132 and the sharpest curve 20 chains radius. The adoption of this alternative route will materially reduce haulage costs and permit of increased speeds. It is hoped to have this duplication completed in three years.

The new formation from 1 m. onwards is being carried out by the Public Works Department, while the reconstruction of the Auckland station-yard from 0 m. to 1 m. is in the hands of the Railway Department. The work involves some comparatively heavy construction, the two outstanding features being the building of an embankment across Judges Bay, Hobson Bay, and the Orakei basin, approximately 2 miles in length, and the driving of a double-track tunnel, 27 chains in length, under the Auckland—St. Heliers Bay Road, between 4 m. 59 ch. and 5 m. 6 ch. The embankment involves the placing of nearly half a million cubic yards of earthwork, which will be obtained from the large cuttings at Campbell's Point and Orakei Neck. It will be protected from wave-action by stone protection, which is being erected in advance of the filling.

A bottom heading is being driven through the approach cutting at the north end of the Purewa Tunnel, for the dual purpose of providing earlier access to the tunnel and to cheapen the cost of excavating the approach cutting. 262 ft. of heading has been driven to date. At the south end of the tunnel a steam-shovel is excavating the approach cut, and access to both portals will be available in about three months' time. The formation work between 3 m. 20 ch. and 5 m. 65 ch. is being opened out by manual labour, which will be reinforced by steam-shovels as soon as they are available and can be got on to the site. Culverting is also in hand. The formation is lighter from the tunnel to Westfield, the main feature being the construction of station-yards at close intervals to cater for suburban traffic. All road-crossings are to be dealt with by means of overbridges or subways, so that the level-crossing menace will not exist as far as this section of line is concerned. Special attention is being paid to the accommodation of workmen employed at the tunnel, and an up-to-date construction camp is being built, with metalled access roads, water-supply, electric light, drainage, &c.

EAST COAST MAIN TRUNK RAILWAY.—WAIHI EASTWARDS.

Athenree Section (0 m. to 8 m. 68 ch.; length, 8 m. 68 ch.).—The actual formation of this section was completed prior to the period under review, but alterations and extensions to station-yards at Waimata and Athenree involved removal of 9,500 cubic yards of spoil, which was used for widening banks and completing bridge approaches. All fencing has been erected except a small gap where the branch line from Athenree Quarry joins the main line. Several cattle-stops have been provided. Girders were placed on Waiau Stream Bridge at 7 m. 7 ch., 7 m. 23 ch., 7 m. 69 ch., and 7 m. 76 ch., and the erection of bridges on this section is now complete. The permanent rails have been laid from 6 m. 19 ch. to 8 m. 68 ch., as well as sidings at Waimata and Athenree Stations.

A quarry was opened in the Athenree Gorge, opposite 7 m. 24 ch. and a branch line 16 ch. long constructed thereto, together with necessary siding, crushing plant, bins, &c. A large shot of 3,750 lb. blasting-gelatin was fired in July, 1924, with satisfactory results. About 8,300 cubic yards of ballast have been already obtained from this quarry. Ballast supplies were obtained previously from a private quarry at Karangahake. The first lift of ballast is completed throughout the section, and second lift has been placed from 0 m. to 4 m. 60 ch. and from 6 m. 60 ch. to 8 m. 40 ch.

A goods-shed, loading-bank, and shelter-shed with ramp have been erected at Waimata Station, and station-buildings, platform, latrines, loading-bank, 2,000-gallon water-vat, and three platelayers' cottages have been erected at Athenree. All temporary hutments, engine-shed, &c., have been removed from Waihi to Athenree, and the work's office previously at Waihi has been shifted to Katikati.

The Department has been running goods traffic on this section since December, 1924, with satisfactory results.

Katikati Section (8 m. 68 ch. to 16 m. 28 ch.; length, 7 m. 40 ch.).—On this section the earth-works are completed as far as 14 m. with the exception of a cutting at 11 m. 63 ch. and some bank-widening. Several culverts have been built, and side drains and stream diversion cut. Overbridges at 9 m. 19 ch. and 12 m. 59.5 ch. have been completed, and the concrete piles for bridge at 10 m. 61 ch., and for Tuapiro Bridge at 12 m., have been transported to the site. The riveting of the girders for the Tuapiro Bridge is being undertaken in the Department's workshop at The Mount and they will be barged to the site. Permanent-way has been laid from 8 m. 68 ch. to 11 m. 51 ch., and the first lift of ballast has been placed to 11 m. 51 ch.

A platform and loading-bank have been completed at Tahawai Station, and a temporary station has been provided at 11 m. 46 ch. for goods traffic, which commenced running to this point on the 1st March last. This temporary station serves the Katikati district, and so far the traffic has shown satisfactory results.