

new Cameron pump, 14 in. by 6 in. by 18 in. stroke, has been installed for the purpose of forcing the water direct to the surface through the borehole; and a new two-stage air-compressor, Ingersoll Rand type, has been erected to supply the additional power required. Ventilation is induced by a Waddell fan. A special visit for the purpose of testing the ventilation was made on the 18th December, and the following measurements were taken: Main intake—Quantity of air entering the mine, 42,630 cubic feet per minute, or 311.16 cubic feet of air per man per minute; temperature, 76.5° Fahr. The distribution of the air through the workings was satisfactory. Mine-sanitation is properly attended to, and there is a good supply of mining-timber on hand. The pillar area under the Waikato River is gradually being filled in with *débris*. This section does not appear to have suffered any damage during the year. The ladderways in the second escape and return air-shaft have been substantially protected; strong wire netting is fitted to the ladders so as to form a half-cylindrical tube. The danger of serious accidents occurring by persons falling off the ladders is thus greatly minimised. The shafts, cages, ropes, chains, and automatic gear connected therewith were carefully examined from time to time. The engine, boiler, and fan machinery are in good order. Telephone communication is now established in the mine. The output of coal for the year was 85,149 tons, a decrease of 6,626 tons as compared with the previous year. Two hundred and ten men were employed.

Extended section (William Wood, mine-manager): The main haulage has been extended into the west heading for a distance of 14 chains, and improvements have been effected at the pit-bottom, thereby facilitating the work of loading coal. During the year the downthrow fault referred to in last year's report was driven through, and the seam was found. The connecting drive for ventilation purposes has been made, also arrangements undertaken in connection with haulage and drainage. The north-west heading has been extended to within 5 chains of the western bank of the Waikato River. A new Lancashire boiler is employed at the mine, and a start has been made to erect a pair of 20 in. cylinder haulage-engines. Ventilation is produced by a fan of Sirocco type. The mine was last visited on the 20th December, when the following measurements were taken: North section: the quantity of air entering the mine was 29,145 cubic feet per minute, being 331.2 cubic feet of air per man per minute (the air is well distributed through all the working-places); mine-temperature, 78° Fahr. Sanitary conditions are satisfactory; drives and other places well timbered, and ladders and timber are provided for each working-place. Travelling-roads are in good order. In the second escape and return air-shaft the ladders are being protected in the same manner as those at Ralph's. The shafts, cages, ropes, and chains, with the detaching-hooks and safety catches, were carefully tested from time to time by the engineers, and the results of such tests were recorded in the report-book. Special and general rules posted, and reports entered to date. The output of coal for the year was 101,180 tons, being an increase of 23,618 tons over the previous year. Two hundred and twenty-three men were employed.

Taupiri Reserve (William Wood, manager): Nothing of special note has been done during the year. Ventilation is by natural means, assisted by a jet of steam. The quantity of air per man per minute entering the mine at the time of the examination was 173.3 cubic feet. The mine is in good order, and the rules and regulations are well observed. The output of coal for the year was 6,502 tons.

Taupiri South Colliery (William Leather, mine-manager).—Mining operations have been seriously hindered by mine-fires, and although the manager attempted to block up the area in which the fires existed, his efforts proved fruitless, and he has been compelled to build stoppings, and close up the mine with a view to choking the fire. Five men were employed during the year.

Union Collieries (F. J. Tattley, mine-manager).—The mine has been worked continuously throughout the year, but no development-work of any importance has been undertaken. A connection was made with the old Miranda Company's shaft, thus making provision for a second outlet. The ventilation was tested early in December, and the following measurements were taken: Main intake—1,421 cubic feet of air per minute, or 79 cubic feet of air per man. Main return—3,350 cubic feet of air per minute, or 186 cubic feet of air per man. The discrepancy in the quantities of air is due to the fact that the velocity of the air-currents is variable, also in a measure to leakage. These defects were pointed out to the manager, and he was requested to remedy them at once. The manager is inclined to be lax and somewhat indifferent concerning the supervision of the mine, and I have had to warn him about several matters which should have been quite unnecessary for me to comment on had he been both observant and mindful of the provisions of the Coal-mines Act. Special and general rules posted, report-book kept, and reports entered to date. The coal-output for the year was 13,720 tons, and thirty-one men were employed.

Waipa Colliery (no manager).—This mine has been idle throughout the year. A new company is being formed, with a capital of £80,000, to develop and work the property, situated some six miles north-west of Ngauwawhia Railway-station. The mine will be connected with the Main Trunk and Waikato lines by branch railway, and this work will be undertaken as soon as the surveys, &c., are completed. The development of the mine will be carried out simultaneously with railway-construction.

Drury Colliery (James Holden, mine-manager).—The principal product of the mine is fireclay, which occurs in a bed of considerable thickness and contains a very faulted coal-seam of inferior quality. Owing to the thickness of the clay and rock *débris* which cover the clay and coal-seams ordinary mining methods are adopted. The natural ventilation is inadequate. The mine was inspected on several occasions during the year and found otherwise to be in good order. Special and general rules were posted, and there was a plentiful supply of mining-timber on hand. Report-book kept, and reports entered to date. The output for the year was 451 tons of coal and 875 tons of fireclay. Four men were employed.

Mangapapa Colliery (William Lennox, mine-manager).—Operations have been carried out only on a small scale, as in former years. The installation of a Hayes fan, single inlet, 4 ft. 6 in. diameter, driven by a portable engine, has materially improved the ventilation, previously defective. The