

ventilation a double-inlet 92 in. Sirocco fan, having an estimated capacity of 215,000 cubic feet per minute against a water-gauge of $2\frac{1}{2}$ in., has been installed, and for power purposes the air-compressing plant is being increased. The general equipment of this the most important colliery in the North Island is both efficient and modern. Notwithstanding labour troubles during the year, this company have again increased their annual output.

The Waipa Railway and Collieries (Limited) are still engaged upon the construction of the branch railway, about five and three-quarter miles in length, connecting their mine with the Main Trunk line near Ngaruawahia. It is reported that contracts have been let for screening plant and other necessary machinery. This company may possibly enter upon the output stage late in 1913.

The Puponga Mine, after nine years of vicissitudes, is now in liquidation, about £75,000 having been sunk upon the property. This mine was worked from a dip-haulage adit, bearing almost true north, and inclined approximately 1 in 3 $\frac{1}{2}$ for its total length of 25 chains, from each side of which levels and bords were driven. The coal-seam proved of excellent and hard quality, but of moderate thickness, and much-parted by bands of hard stone, which limited the field of operations on both sides of the dip until the thirteenth level was reached, when the band thinned out and an excellent seam 7 ft. thick appeared in the levels from thence downwards. Unfortunately the management, in contravention of the written orders of the Inspector of Mines, extracted coal pillars from under the Wiriki Creek, with the natural result that a considerable volume of water entered the mine, and the cost of production increased to such an extent that operations were rendered unprofitable. By the construction of a water-race 25 chains in length to carry this creek the influx may to a certain extent be reduced. Notwithstanding the hitherto chequered career of this mine, by systematic drilling in the low-lying valley to the eastward of the present dip-bottom, towards the Old Man Rock, a valuable area of coal is likely to be proved. As an example of indifferent mining it may be stated that absolutely no boring has ever been done upon the property. The total output from this mine at the end of 1912 amounted to 160,101 tons.

On the Buller Coalfield, from which 11,500,000 tons of bituminous coal have now been won, the Seddonville State Colliery has increased its annual output, with profitable results. Available hard coal exists only in this mine in the Deviation and West sections, and in a small area east of the haulage-road, all of which are rapidly approaching exhaustion, after which there will only remain a limited quantity of soft coal, which, although suitable for steam-production, is saleable only at such a low price that it is doubtful if it can be mined at a profit.

At the Denniston Colliery the most important development has been the extension of headings in the Wareatea section in a north-westerly direction, where excellent coal has been proved. In the Ironbridge Mine headings have also been considerably advanced in the No. 2 seam, and in the Kruger section, and to the westward of the Deep Creek section. There has been a small decline in the annual output, which, however, has been more than counterbalanced by an increase in the same company's Millerton Colliery, a younger mine with a more extensive area of unworked coal. In the Mine Creek section of the Millerton Colliery the main crosscut has been considerably advanced, but development of the Lower section has disclosed considerable faulting. The main development to the south-west, however, has proved a large area of excellent coal. The greater proportion of the year's output from the two foregoing mines, the property of the Westport Coal Company, has been obtained from pillar-extraction.

At the Westport-Stockton Colliery there has been an improvement in output from the B, C, and D tunnels, which comprise the existing mine, and are confined within a narrow strip of coal-bearing country extending along the outside of the eastern boundary of the Westport Coal Company's Millerton lease. This strip of coal is in length about 1 mile 50 chains, and varies in width up to 20 chains. It originally contained about 120 acres of coal, varying in thickness between 5 ft. and 14 ft. A considerable proportion of this is soft. To the eastward this area is bounded for its entire length by a downthrow fault and escarpment, as shown in my plan of the Buller Coalfield published in the Mines Annual Report for 1906. Owing to the limited extent of the present mine the company have systematically prospected a considerable area towards the eastern boundary of their lease, and have developed a compact block of coal at least 600 acres in extent, of which 486 acres of workable thickness are contained within the company's lease, the remainder being an extension of the coal eastward into Crown land to a line drawn from St. Patrick's Creek to Coal Island. The bottom or workable seam in the newly proved area is isolated from that worked in the original mine by about 40 chains of sandstone country, in which coal of workable thickness does not occur. A number of boreholes have been drilled, proving a seam which, I am informed by the mine-manager, varies in thickness between 5 ft. and 19 ft. The general dip of the newly proved area is 1 in 20, bearing north-north-east; and although there may be local variations of dip owing to minor faulting, there is no evidence of severe dislocation of the rocks within the proved ground. The boreholes show that about 100 ft. of sandstone overlies the coal-seam throughout the greater part of the area, and that the seam proved is the lower of two, the upper one in this locality being too thin for economical working. The boreholes having been located systematically, a reasonable estimate based upon the journal submitted may be made of the quantity of workable coal. Assuming that the coal-seam has an average workable thickness of 12 ft. over 486 acres, then there exist 9,000,000 tons of coal *in situ*, of which at least 3,000,000 tons should be extracted and marketable. The connection of this newly developed area with the existing haulage-system of the old mine presents no engineering difficulties. A tunnel of about 12 chains branching from the B main haulage-tunnel has already been completed, also a bridge across the Mangatini Creek, from which point about 90 chains of surface formation connect with the new mine adit. This formation also is nearly completed, after which there only remains the laying of the permanent-way and the erection of trolley-poles for electric traction to bring the new mine to the output stage, which should materially improve the financial prospects of the company.

On the Grey Coalfield the Point Elizabeth State Colliery No. 1 has about maintained its annual output. In the No. 1 section the only solid work remaining consists of a small steeply inclined area