

exceptionally strong; there is not a break or fall anywhere, and the workings are nowhere more than 9 ft. in width, while pillars are not less than 8 yards square. A new three-throw pump by Cossens and Black, of Dunedin, has been placed in the pit. Suction 6 in. diameter, delivery 5 in., capacity 8,000 gallons per hour, driven by endless wire rope working six hours daily. Air at dip-face dull owing to stentons for air-return not being close up to face. (10/12/1901): The heading driven towards the river and over which the dredge worked, and which was to be securely packed with suitable material, is still standing open, save for a pillar of bagged *débris* about 16 ft. by 5 ft. at base which has been built at widest part. In the highest heading a borehole is advanced in the face all the way. In the roof, however, for a distance of about 70 ft. only two boreholes have been driven. Each of these is 4 ft. 6 in. deep and 35 ft. apart. The manager promised to put these boreholes to full depth, fill and stow the heading, and follow the requirements contained in my letter of the 1st October closely in the future. Ventilation fair throughout the pit. All work in the extension has been stopped, except that a small connection is being made through to the slant dip for air. Six miners, one trucker, and one horse were in the pit on above date.

*Undaunted (late Ballantyne's) Coal-pit, Alexandra* (D. Mathias, permit).—(19/8/1901): Shaft 60 ft. This shaft has been sunk and timbered in an erratic manner, but is standing well. The last owner worked the highest and poorest quality of the coal. Present owners starting away a dip, and also pushing on levels to connect for air. The seam now being worked is about 6 ft. thick, with good floor and roof. Output to date limited. (11/12/1901): Mine in good order. Ventilation fair.

*Jones's Coal Area, Lauder* (one time Harrox and Owen's).—(9/6/1901): Very little coal has ever been found here. Water has been brought on to the ground for sluicing the stripping away, and the present proprietor (who holds a lignite license over the area) is engaged bringing up a tail-race. This is purely a prospecting-work, as no defined seam of coal has yet been met with. Sixty tons of coal were taken out by Harrox and Owen in 1897.

*Cambrian's Coal-pit, Cambrian's* (C. Dungey, lessee).—(10/6/1901): These workings are shallow; about 10 ft. of coal, having an overburden of 15 ft. of gravel. The coal follows the run of the bottom. Where the bottom rises the coal pinches out, and where the bottom dips the coal makes. Two men are engaged. No stripping was being done in advance.

*Welshman's Gully Pit, Cambrian's* (J. McGuckin, lessee).—(10/6/1901): Four men employed. Open-face working, consisting of about 10 ft. of coal in sight, with 25 ft. of overlying clay. A very good block of coal left underfoot by previous owners is being taken up. Where the face is being operated on at present the stripping is light, but further ahead the overburden is heavy. Water is brought in from Stewart's Creek, and the workings are pumped dry by hydraulic elevator. It will be some considerable time before this mine will be in good order.

*Blackstone Hill Pit, Blackstone Hill* (A. Dunsmuir).—(12/6/1901): Work has been discontinued for some time.

*G. Price's Coal-pit, Blackstone Hill* (G. Price, lessee).—(12/6/1901): The lessee, who has a lease of 10 acres, getting out coal for his own use only. 12 ft. of coal in the face, with 4 ft. of stripping.

*St. Bathan's Pit, St. Bathan's* (J. Enwright).—(5/2/1901): Opencast. Face undermined and dangerous. Stripping not kept up to the mark. I have had to caution Enwright on this and former occasions as to the dangerous manner in which he works this pit. The pit is making a considerable quantity of water, and some mechanical appliance is now required for pumping, the water-growth being entirely beyond the capacity of the bucket and windlass in use. (10/6/1901): Stripping not yet quite up to the mark. Two men at work.

*Rough Ridge Coal-mine, Idaburn* (M. Beck, manager).—(12/6/1901): Seam 35 ft. thick. The overburden, which is about 6 ft., is not well stripped back, concerning which I gave the man in charge notice. Three men employed. Drainage-water is lifted out of the well by horse-power and bucket.

*McLean's Coal-pit, Idaburn* (L. McLean, lessee).—(12/6/1901): Not much work done in this pit yet. The face of coal is about 15 ft. deep, with a light overburden of gravel. A heavy slide of gravel and crushed coal had taken place previous to my visit, and Mr. McLean was still busy clearing it away. The pit is quite dry. Two men engaged.

*Idaburn, Idaburn* (J. White, lessee).—(12/6/1901): Owing to the demand for coal, Mr. White has been taking out the coal without keeping the overburden well stripped back. I gave Mr. White verbal notice, and subsequently wrote him, drawing his attention to the matter. There is about 20 ft. of coal in the face. Two men are employed. A pulsometer steam-pump is used to drain the water from the pit.

*Border, Rough Ridge* (G. Turnbull, lessee).—(12/6/1901): Opencast. About 12 ft. thickness of coal. Water in pit heavy owing to soakage from the creek close by. Two men employed.

*Gimmerburn, Gimmerburn* (C. Dougherty).—(12/6/1901): Only a few tons for private use being taken out.

*Commercial Coal-pit, Upper Kyeburn* (C. Archer, permit).—(14/6/1901): The low level is now at a depth of 80 ft. Motive power is derived from a water-wheel and endless rope. The top pulley-shaft is connected with the winding-drum by bevel gearing, and can easily be thrown out of gear. The empty truck is let down by means of a hand-brake. An eccentric on the other end of the main shaft actuates the pump-rods. The pit does not require much pumping except in wet seasons. The levels are driven to the fault, leaving 5 ft. or 6 ft. of coal overhead. Then the roof is broken through at the end of the level, and the overlying gravel is run into the level for filling. As the coal is taken from overhead the level is filled in advance with gravel. Four men employed. (3/10/1901): Archer is pushing on the main dip, and has it advanced over 100 ft. The sump being kept deeper than the dip workings, there is no water in the dip. A man is working in a block of coal left in the top level. The pit can easily cope with the present requirements of the district.