

Owing to the rapid expansion of the gold-dredging industry, there have been numerous applications for coal licenses and leases throughout Central Otago. Considerable care will have to be exercised in dealing with these, as, if licenses and leases are granted indiscriminately to parties without the necessary knowledge and capital to open out and satisfactorily work the mines, and more mines are opened than the reasonable demand for fuel will justify, a repetition of past history will be experienced. Getting coal anyhow, and selling it at prices which preclude the possibility of doing more than paying bare wages, without a margin for development-work and contingencies, will not do in the future. This style of thing has been responsible for the loss of a large amount of coal and lignite in the past, and, if allowed to be perpetuated, the question of future supply in parts of Central Otago will become very serious indeed. In order to show how small slack-coal may be utilised to advantage, I have written a short paper on "Briquette-manufacture," which will be found as an appendix to this report.

I have, &c.,
JOHN HAYES,
Inspecting Engineer.

No. 2.

Mr. E. R. GREEN, Inspector of Mines, to the UNDER-SECRETARY, Mines Department, Wellington.

Office of Inspector of Mines (Southern District), Dunedin,

SIR,—

26th February, 1900.

In accordance with the requirements of section 67 of "The Coal-mines Act, 1891," I have the honour to submit the following report on the mines visited by me as from the 1st November to the 31st December, 1899, inclusive :—

SOUTH OTAGO.

Fernhill Coal Company, Abbotsford (James Gray, manager).—(13/11/99) : Workings generally in good order. Coal principally obtained from pillars and roof, which are now fairly well robbed. Prospecting-drive 4 chains in faulted coaly strata to the north. Should this drive strike the coal-seam, which is lost in this direction, the life of this colliery will be renewed. Air travelling very slowly, and the quantity is too small for such an extent of open workings as there are in this mine. Upcast air-shaft in the gully requires some means of egress for second outlet. I drew Mr. Gray's attention to this, also to the necessity for controlling the water, which falls continuously down the shaft in a heavy spray, and guiding it down one of the corners of the shaft in such a manner as not to interfere with the air-current. No general rules posted in mine. Report-book kept, but not entered up to date. I wrote Mr. Gray on these points, but did not receive an answer. (19/12/99) : I again visited this mine, and found that Mr. Gray had not done anything towards providing means of egress, or to control the water in the upcast air-shaft ; but he promised to do so forthwith, and subsequently informed me that he had done so.

Abbotsford Colliery, Abbotsford (Freeman's Coal Company ; Robert Hill, manager).—(20/12/99) : Pillars being taken out in the district opened during the past three years. Weight and side-pressure on main level near where pillars are being drawn breaking timber, and roof low in consequence, but safe. Timber being renewed daily where necessary. Advised Mr. Hill to make a deviation by cutting a new drawing-road in the pillar above the level, and thus save a large expense in renewals. Drew manager's attention to the necessity for providing outlets for men extracting pillars. Air dull at working-faces ; this will be remedied by a put-through on to the upper level, which is almost completed. Travelled return airway, and found same in good order. Rules posted. Plan and report-books to date. Act generally well observed.

Walton Park Colliery, Walton Park (J. Kenyon, manager).—(19/12/99) : Discontinued pumping owing to the boiler being ruined by the use of pit-water. The corrosive action of the water (which is all that is available) on the inside of the boiler has eaten away the rivet-heads to such an extent that the boiler had to be thrown out of use pending repairs. The water in the mine is rising slowly, and is not interfering with the working of the mine. Pillars, head-coal, and bottoms are being carefully taken out. The shaft recently sunk for pumping and air is now cut off, water having risen over the door-heads. Two other air-shafts—one having a ladder-way, the other the large bricked shaft with furnace—are available, and have the air conducted to them by substantial brattice. Examined the ladder-shaft and the travelling-ways thereto, and found them in good order. Mr. Kenyon is keeping the air off the further shaft in the meantime, so that risk of fire in the old works may be minimised as much as possible. Air travelling freely, and not so stale as might have been expected in workings so surrounded by old works, some of which fire up on being opened to the air. The following is an analysis by Mr. Skey, Government Analyst, Wellington, of Walton Park boiler-scale :—

Sulphate of lime	...	...	...	...	...	...	80.55
Carbonate of lime	...	...	...	...	...	...	Traces
Carbonate of magnesia	...	...	...	...	...	...	0.96
Iron-oxides with alumina traces	...	...	...	...	...	...	10.29
Siliceous matter	...	...	...	...	...	...	3.01
Soluble salts, principally alkaline sulphates	...	...	...	...	...	...	4.78
Water	...	...	...	...	...	...	0.41

100.00

Jubilee Colliery, Saddle Hill (James Loudon, manager).—(19/12/99) : Mine generally in good order. Coal strong, and very little timber required. Pillars in a few places not more than 6 ft.