

in excellent working-condition. The cage is frequently run, which insures the steam-winch being in order, and a head of steam is always kept on the boiler in case of emergency. The caretaker is a certificated wind-engine driver. Surface arrangements, including loading-bank, workshops, safety-lamp cabin, and explosives magazines, are maintained in good order. There has been no alteration regarding exclusive use of safety-lamps underground, the lamp-station notice being placed at the first cabin on the main intake airway, and beyond this only safety-lamps are allowed. Electric wires used are carried on poles, and are well out of reach from the ground; caution notices are also posted warning persons against contact. The advantages which accrued to ventilation a few years ago by sinking of the present upcast air-shaft, with consequent liberation of occluded gases from the strata and shortening of air-circuit, would seem to indicate the advisability of again taking this question into consideration. A prospecting dip drive from surface is down about 600 ft., and is meant to test the measures lying to southward of former workings. No accidents of a serious nature are reported as having occurred underground in this colliery. On the surface, George Carson, labourer, sustained fractured leg by small fall from face in sandpit; and H. Douglas, banksman, suffered from partial paralysis by, as alleged, tripping and striking his head against a beam.

Castle Hill Colliery, Kaitangata (New Zealand Coal and Oil Company, (Limited), owners; W. Carson, mine-manager).—(27/4/10): Robbing and withdrawal of pillars from carriage-heading section, Jordan's seam south, on the point of completion. Permanent log and ash stoppings are in, and final closure will be made immediately. Ventilation fairly good throughout. Travelling-ways and return airway to ventilating-furnace in good order, but I pointed out to the underviewer the necessity for providing better exit arrangements at foot of upcast shaft for the men in the case of necessity. (30/11/10): On surface—Second outlet shaft-mouth and man-hoisting apparatus kept in order for use when required.

Benhar Colliery, Stirling (P. McSkimming and Son, owners; Colin Murdoch, permit, manager).—(28/4/10): Mine in good working-order. Safety barrier of 2 chains solid coal being left between present and old workings, which are expected to contain a body of standing water. However, these are well surveyed, and no danger is anticipated; in any case, the water standing can only have a low vertical head of pressure in its relation to present workings. Rules posted; plan and report-books kept.

Mount Wallace Colliery, Stirling.—No output. Mine closed on account of fire, which occurred during last year.

Mainholm Colliery, Conical Hills, Waipahi (D. Dickison, owner; W. Lischner, permit, manager).—(8/12/10): Pit in working-order. Owing to fault, bottom rising and seam thinning. Powder-magazine approved for storage of explosives.

CENTRAL OTAGO.

Coal Creek Collieries, Coal Creek Flat, Roxburgh (Crown lease; Barber and Shaw, lessees; J. Barber, mine-manager).—(23/8/10): The mine became closed on account of a spontaneous outbreak of fire on the 10th June, and was flooded with water, which still remains. Opencast work was resumed, and five men are employed. The face being about 40 ft. in height and rather steep in one place, I instructed the mine-manager to have the loose taken down and more batter given, in order to provide for the safety of the workmen below.

McPherson's Coal-mine, Coal Creek Flat, Roxburgh (Crown lease; McPherson Bros., lessees; A. J. McPherson, permit, manager).—(21/4/10): Places fairly well driven, and good pillars being left. Seam of great thickness, estimated at 80 ft. I instructed lessee as to necessity for regular and rectangular pillars being left to provide for future working to the dip. Soft seams occur which affect regularity of development, but this is guarded against as well as circumstances allow. Air good. Rules posted; report-book and plan kept.

Craig's Perseverance Coal-mine, Coal Creek Flat, Roxburgh (Crown lease; James Craig, lessee; S. E. P. Vernon, permit, manager).—(23/8/10): The old workings, where heating occurred several years ago, have been reopened, and stoppings advanced $2\frac{1}{2}$ chains with safety. No vestige of the old mine-fire can now be detected by smell or heat. The stoppings are quite cool, and are kept well painted with clay-wash, and are airtight. An upcast airway has been made closer to level faces, consequently ventilation improved where the men are at work. The dip is being extended in coal of good average quality. Hydraulic pumping and haulage are in vogue at the colliery. Rules posted, plan kept, and report-book to date.

Alexandra Coal-mine, Alexandra South (Crown lease; Messrs. Mathias Bros. and Co., lessees; A. E. Barnes, mine-manager).—(22/8/10): The effect of drawing pillars to dip is visible in heaving roadways and air-courses requiring close attention for ventilation and timbering. In one place appearances indicated heating; but this was said to be due to exhaust steam from the pump lodging in the roof-cavity. I instructed the manager to have a thermometer placed in position, and to record its reading daily in his report-book. Rules posted, plan kept, and report-books to date.

New Alexandra Coal Company, Alexandra South (Crown lease; James Pollock, mine-manager).—(13/12/10): All that area of worked ground to northward of the borough boundary is now abandoned. Pillars have been split and re-split, and as large a percentage of the seam won as considered safe. Remaining pillars in this area are sinking gradually. The floor rising nicely to the roof, and packing tightly against it, renders the stability of the workings doubly secure from an invasion of water from the water-logged gravel stratum in the measures overhead. The wisdom of having limited the width of drives to 9 ft. is now more apparent, there not being a fall from roof of any consequence throughout