

and straight a line of roof break as possible has been obtained, with beneficial results. A closer study of roof-control during pillar-extraction, particularly in thick seams, has undoubtedly enabled a larger percentage of coal to be recovered with an increased degree of safety. Another point of importance which has been illustrated more forcibly as the result of the mines working only partial time, is the ultimate disadvantages which follow upon the driving of wide working-places during the development stage. The ventilation of the mines, and particularly the gassy mines, has received particular attention, and we are pleased to report that the position in this respect is, generally speaking, reasonably satisfactory.

GREY DISTRICT.

Liverpool State Colliery.—Operations at this colliery consist of the developing of the No. 2 Mine and the extraction of pillars from the No. 1 Mine and a portion of the No. 2 Mine.

No. 1 Mine.—In this mine there were, on an average, five pairs of miners extracting pillars, the seam being upwards of 20 ft. Pillar-extraction is nearing completion.

No. 2 Mine.—Five sections are being work—viz., Anderson, Kimbell east, Kimbell west, and the Morgan east and west. Anderson section.—During the year the seam in the main level in this section became intersected with a thick band of stone. The lower portion of the seam was prospected and a good workable seam proved. From the main level two dip sections are being developed in coal of good quality and thickness. Kimbell sections.—Development work in the Kimbell east level section was continuously carried out during the year. In the extension of these workings water was freely given off from the roof of the seam, and, in addition to water, feeders of gas were frequently met with in the roof breaks. In the Nos. 3 and 4 banks east, also Nos. 2 and 3 banks west, development work is now completed and operations in these banks are confined to the extraction of pillars. The main east level in the Morgan seam was stopped during the early part of the year. The seam pinched to an unworkable thickness intersected with stone bands. Operations in this seam are confined to the extending of the rise workings from the east and west levels in the direction of the old workings at the No. 1 Mine. A barrier pillar of approximately 2 chains in width is being left between the workings of the two mines to keep back the water in the No. 1 Mine. The workings in No. 2 bank west having reached the barrier, pillar-extraction has been commenced. Stone-dusting was regularly carried out during the year, and samples taken and analysed. Total output to the 31st December, 1931, was 2,284,787 tons.

James's State Colliery.—The output was obtained from the development of workings in the crosscut section, the extraction of pillars from the west section, and the opening-up of a small dip area west of the main haulage-road. Crosscut section.—In this section the development work consisted of extending the south level and workings to the rise from the level towards the fault, also the opening-up of a dip section adjacent to the head of the crosscut jig. The coal in this section has been of fairly uniform thickness, but variable quality. In pillar-extraction, conditions permit of practically the whole of the pillar-coal being won. A considerable amount of exploratory work has been carried out on the reverse between the Nine-mile and Ten-mile Creeks, also on an area adjacent to the James's Mine. Along the escarpment overlooking the Ten-mile Creek coal outcrops have been traced for a distance of approximately 70 chains. With a view to proving the extent of this field, boring operations are being carried out between the outcrops and the Nine-mile Creek. Two diamond drill holes have been put down. The first borehole failed to prove workable coal, but the second one passed through two workable seams of 7 ft. and 15 ft. respectively. Total output to the 31st December, 1931, was 308,204 tons.

Blackball Coal-mines Proprietary, Ltd.—Mining operations at this colliery for the greater part of the year have been at a standstill. The mine ceased production on the 23rd January as a result of a dispute. The position reached serious proportions when on the 31st March all plant was withdrawn from the dip workings, with the result that these workings were flooded. It is reasonable to presume that No. 9 dip workings may never be recovered, and any recovery of coal beyond and to the dip of this area will require the formation of some other means of outlet, probably an extension of No. 2 dip. An attempt is at present being made to recover the old main level beyond No. 9 heading. This area had been sealed off for a number of years. Fairly good progress has been made, the work now having advanced to No. 12 heading. The water in No. 2 dip has been maintained at a reasonable level, and will be easily capable of drainage. During the time the mine was idle a general renovation of surface appointments and plant was carried out. Up to end of 1931, 3,909,598 tons have been produced.

Blackball Creek Coal Co., Ltd.—This is a new company which was formed during the period of idleness at the old Blackball Mine. A commencement was made to drive a dip heading near the eastern boundary of the Blackball Freehold, but after proceeding a distance of approximately 4 chains, trouble was encountered, and the area presents the appearance of being in the midst of a series of faults, and operations at this site were temporarily abandoned towards the end of the year. A more ambitious project is being undertaken at present. The party has commenced to develop an area adjacent to the old furnace; also other points to the rise of No. 9 and 10 headings and the old D level section will be developed. The coal will be transported to the bins by means of a water flume two miles in length and 220 square inches sectional area, a new bin of 600 tons capacity having been erected adjacent to the main bins for the storage of this coal. Power for this project will be drawn from the Grey Electric-power Board. The output since work commenced amounts to 4,093 tons.

Briandale Collieries, Ltd.—The several points at which this company have been operating from the north side of the Ten-mile Creek have been abandoned meantime, with the exception of the area being worked by Walker and party and the Aerial section. Severe surface movement has taken place as a result of pillar-extraction in the No. 3 section, and is an object-lesson of where not to extract pillars, as it will be fortunate if further surface-displacement does not take place to the disadvantage of mining operations farther up the creek. All pillars were left intact in Armstrong's Mine. A small party are developing an area about 10 chains to the north of the Ten-mile Creek, the coal being conveyed to the bins by means of an aerial jig, this means of transport having been proved to be efficient, cheaply installed and operated. To the 31st December, 1931, the output was 52,240 tons.

Wallsend Colliery.—The main development work in the No. 1 section, which is situated to the east of the shaft, was pushed ahead rapidly during the early part of the year, but, unfortunately, the effect of the Dobson fault and the Mount Buckley anticline interfered with prearranged plans. The dip heading was stopped after being driven a distance of approximately 14 chains, the Dobson fault being encountered at this point, and the lower easterly levels were stopped owing to the influence of the Mount Buckley disturbance. Development work in this section is now confined to the area lying to the east of the old Wallsend workings. A pair of headings are being driven parallel with the eastern extremity of the old workings preparatory to forming panels. A pair of dip headings are being driven in the No. 2 section and will be continued on to the Dobson fault. The coal in this section is of excellent quality and the strata are here lying normal. The small area of coal lying to the west has been formed into pillars, and a commencement has been made to make a connection with the Taylorville area lying beyond the Taylorville fault. The stone drive has been driven 100 ft. and is 11 ft. by 7 ft.; gradient 1 in 3·5; strata, compact mudstone. A 98 in.-diameter double-inlet sirocco fan has been installed, the housing being of reinforced concrete. Total output up to the 31st December, 1931, was 365,076 tons.

Dobson Colliery.—Mining operations have been considerably curtailed at this colliery owing to industrial trouble, followed by inability to recover pre-existing trade connection, the result being that the mine operated for only the first nine months of the year. Development work was carried out in the main dip headings, these being advanced to a total distance of 41 chains, also the main levels in No. 3 east and west sections, and the formation of a panel to the dip of No. 3 east level. The quality of coal in the above-mentioned sections has been fully maintained. The development of the main west level area presented difficulties due to the thinning of the seam in this direction. This was also attended with bad roof conditions owing to the close proximity of a top seam, known in this district as the "Brunner rider" seam, and which gives off methane very freely. The Sullivan Arkutter machine was continued to be used for development work. An additional electrically driven Bellis and Morcon's air-compressor was installed, and is giving satisfactory service. More frequent splitting of the air-current was practised at this mine with beneficial results. Up to the 31st December, 1931, 511,970 tons was produced.