

very close to a dyke that runs parallel to the haulage. Some bad falls of ground have caused delays, and roofbolt support on a very close pattern has to be kept right up to the face.

### 3. *Cleaning Equipment*

The cleaning equipment available for this development consists of an Atlas Copco L.M. 56 loader and 4 ton Fragan Hoppers. Two Diesel locos of 3½ ton capacity are used for moving the rolling stock. The average cleaning time at present is about 5 hours, which is unsuitable. Larger cleaning equipment is essential.

### 4. *Selection of Personnel*

Black operators were chosen from the mechanically-minded category. They seem to have no difficulty in operating the machine.

The two developers selected for the job were of above-average calibre, one being a young enthusiastic man and the other a more experienced

and less enthusiastic person. The younger developer has proved more adaptable, and has accepted the rig with far more alacrity than the latter, and has been a greater success.

It is necessary to appoint an adaptable and progressive-thinking person to this job.

### 5. *Water Pressures*

The water pressure on this level is high, and, as a result of the static pressure, many water-feed hoses burst. A pressure regulator was installed to overcome the problem.

### 6. *Machine Faults*

The hydraulic hoses initially installed were inadequate, and as a result tended to burst.

The electric trailing cable should be accommodated on the rig itself. After experiencing much damage to the cable as a result of rough handling, we put a cable car in tandem with the rig, which has afforded better protection to the

cable.

The O-rings in the collectors give trouble when steel sticks in the face.

The electric panel on the drifter originally gave trouble, but these problems have been overcome.

Because of its technical sophistication, the machine has proved difficult to maintain.

### Conclusion

I feel that the pneumatic rig is a less difficult rig to introduce into the gold-mining industry at present. When the difficulties have been ironed out of the hydraulic rig, it will be a superb machine. The Cop 1038 Drifter has given outstanding performance, and this drifter, in conjunction with a well-tried and proven hydraulic jumbo, would be of great value to a high-speed development project. It would be encouraging to see a roof-bolt drilling boom incorporated in this drill rig.

## Drilling, Blasting, and Ore winning

A General Meeting and Colloquium on the above subject was held on November 13th, 1974, at Kelvin House, Johannesburg.

Professor R. P. Plewman (President) was in the Chair.

The Colloquium was attended by 235 delegates and was opened by the President at 09h30.

### Obituary

I. D. B. Corner, Fellow.

In memory of the deceased and in sympathy with the bereaved, the delegates rose and observed a few moments' silence.

### Membership

*The President:* I have much pleasure in announcing that the undermentioned candidates, whose names have been published in accordance with By-Law 5.2.2., have been elected to membership of the Institute in the following grades:

*Fellows* P. P. Coetzer, B. K. Loveday, J. L. M. McGibbon.

*Member* J. J. Marais.

*Graduate* R. Winby.

*Associate* P. L. Rossouw.

*Students* R. A. L. Atkinson, G. Bull,

E. J. Fox, N. T. Halgreen, L. A. Jagger, J. Nortjie, B. W. Pitchford, A. Schmidt, B. M. L. Smith, M. Sturgeon.

*Transfer to Fellow* R. C. Bertram.

*Transfers to Graduate* G. A. Fourie, A. P. S. Howard, K. B. Perel.

I welcome the newly elected members of the Institute, and congratulate those who have been transferred to a higher grade.

### Co-optation to Council

*The President:* I have pleasure in announcing that Mr H. M. Wells has been co-opted to fill the vacancy created on Council by the resignation of one member, while Mr E. Collier has been co-opted to represent the interests of the non-corporate members of the Institute.

The meeting ended at 09h45.

The Colloquium Chairman was Dr M. D. G. Salamon, of the Chamber of Mines of South Africa.

The following papers were presented.

### First Session

Improvements in stope drilling and blasting for deep gold mines\*,

by A. J. A. White, Dr N. C. Joughin, and Dr N. G. W. Cook, Chamber of Mines Research Laboratories.

A comparison between hydraulic and pneumatic rockdrills, by T. C. Marshall, Delfos and Atlas Copco (Pty) Ltd.

The mechanization of haulage drilling in the gold mines of Anglo American Corporation\*, by Dr J. W. Wilson and J. G. Taylor, Anglo American Corporation of S.A. Ltd.

Session Chairman: Mr D. M. McIver.

### Second Session

Prediction of the performance of explosives in bench firing, by C. M. Lownds, AE & CI.

The organization and management of a large mechanized colliery, by G. C. Thompson and P. G. Henderson, General Mining and Finance Corp. Ltd.

Session Chairman: Mr R. B. MacGillivray.

\*Included in this issue of the *Journal*.