Positioning the ore (in the face) – Development:

Due to the shallow dip of the ore body, the levels have been placed 10m apart. (floor to floor). Thus a pillar of 5m is left between the drives. It is essential that the grade is maintained in these drives.

![Diagram of ore positioning]

The normal positioning of the hangingwall within 1.0m – 1.5m from the corner of the drive will still apply. After development is complete the drive will have to be stripped to expose the footwall. The positioning of the ore body in such a manner, ensures safe access (solid floor) for operators installing scraper blocks.

Ground Support

![Diagram of ground support]

It is envisaged that during the stripping phase 6m cable bolts will be installed in the main drives. If further cable bolts are required in the stripping, this is to be installed. A problem arises due to the fact that dumped drilling is to be carried out in these drives. The likely hood of hitting these cable bolts is high thus causing a lot of damage to the drilling equipment.

A Geotechnical evaluation would be required as to whether the stripping requires further support and whether dumped cable bolts would be strong enough to support any wedges that may be present.

![Diagram of production rings]

A possible scenario would be to cable bolt the main drive and use a grouted spilt set in the ore. (A geotechnical evaluation would be required)
Riling of Stopes:

Due to the flat nature of the ore zone, mineralisation will remain on the footwall of the stopes. Therefore water canons and scrapers would have to be used to retrieve this ore to the draw point.

A top down method would not be suitable for this orebody as it would not allow access to install scraper blocks. Therefore the most suited method would be to mine the orebody bottom up.

![Diagram of Walk out and Install scraper block]

Scraping of Stopes:

1. A poly pipe is fed to the level below and a scaper wire is passed between the levels.
2. The scarper operator then positions the scaper block on the level above.
3. A remote bogger is driven in to position and scaping commences.
4. The scaper block on the level above is moved to maximise ore recovery.

Methods to avoid excessive ore loss on footwall:

1. Maintain a constant footwall which is flat.
2. Fire minimum amount of rings (eg.2 rings) and make sure stope is cleaned out before more rings are fired.
3. Dump rings to promote more ore reporting to the extraction level. (firing away from the footwall)
4. Fire rings quickly to get maximum throw.
5. Use water jets/cannons to wash down ore.