Appendix I: Conceptual Final Dump

Comment
The EIS should provide information on the conceptual designs for the mine pits, in pit storage and the initial 'out of pit' waste dump. Further detailed information should be provided of potential environmental impacts associated with the final land form design, mine pits, in pit storage and the initial 'out of pit' waste dump. The Draft EM plan should propose conditions and commitments which demonstrated that identified impacts can be appropriately managed.

Response
The proposed waste placement strategy for Caval Ridge is discussed below:

- Dumping Corridor - Sufficient area has been made available on the western side of the box cut excavation to ensure that all waste material can be placed within this corridor and meet final rehabilitation grade requirements. See Figure 2 for further explanation.

- Ongoing waste placement – The waste placement strategy will be the same as that adopted by most dragline strip mining operations. That is, excavations will be backfilled with waste as mining operations progress down dip. A key feature of the Caval Ridge waste placement strategy is that Truck / Shovel material will be hauled to the lowwall side of the pit and dumped to pre-designed final spoil grade designs to ensure progressive rehabilitation can be carried out.

Figures 1 and 2 provide an overview of the dump design strategies that have been incorporated into Caval Ridge planning.
Figure 1: Conceptual Waste Dump Designs (based on 5 degree seam dip)

Figure 2: Key Design Criteria

1. Box Cut Safety Berm - Box Cut Spoil to be placed 20m to 50m to the east of the Box Cut excavation. The size of the berm will be in line with geotechnical advice.
2. Truck/Shovel Waste Benches - Truck/Shovel waste to be placed in the spoil in lifts between 5m to 10m.
3. Truck/Shovel Waste Offset - Truck/Shovel dump to commence at least one dragline spoil back from the active mining area.
4. Progressive Rehabilitation - Truck/Shovel dumps will be created so that progressive rehabilitation can be incorporated into mine plans. This will involve placing Truck/Shovel waste material on the lower side of the excavation within a dump envelope defined by the required final rehabilitation grade.
5. Dumping area - An adequate spoil area has been incorporated into mine design to ensure final rehabilitation grades can be achieved.