



COMMITTEE FOR MINERAL RESERVES
INTERNATIONAL REPORTING STANDARDS



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MPIGM Workshop

October 18 2014

Mining Modifying Factors, Open Pit

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Presentation Agenda

1. General Open pit modifying factors
2. The importance of structural geology, geotechnical engineering and geohydrology;
3. Dilution and recovery factor

Describe;

Method and assumptions used in the PFS or FS to convert the Mineral Resource to Mineral Reserve ie by pit optimisation, preliminary or detailed design.

The parameters used to derive the cut-off grade.

The choice of, the nature and appropriateness of the selected mining method(s), the size of the selected mining unit (LxWxH)

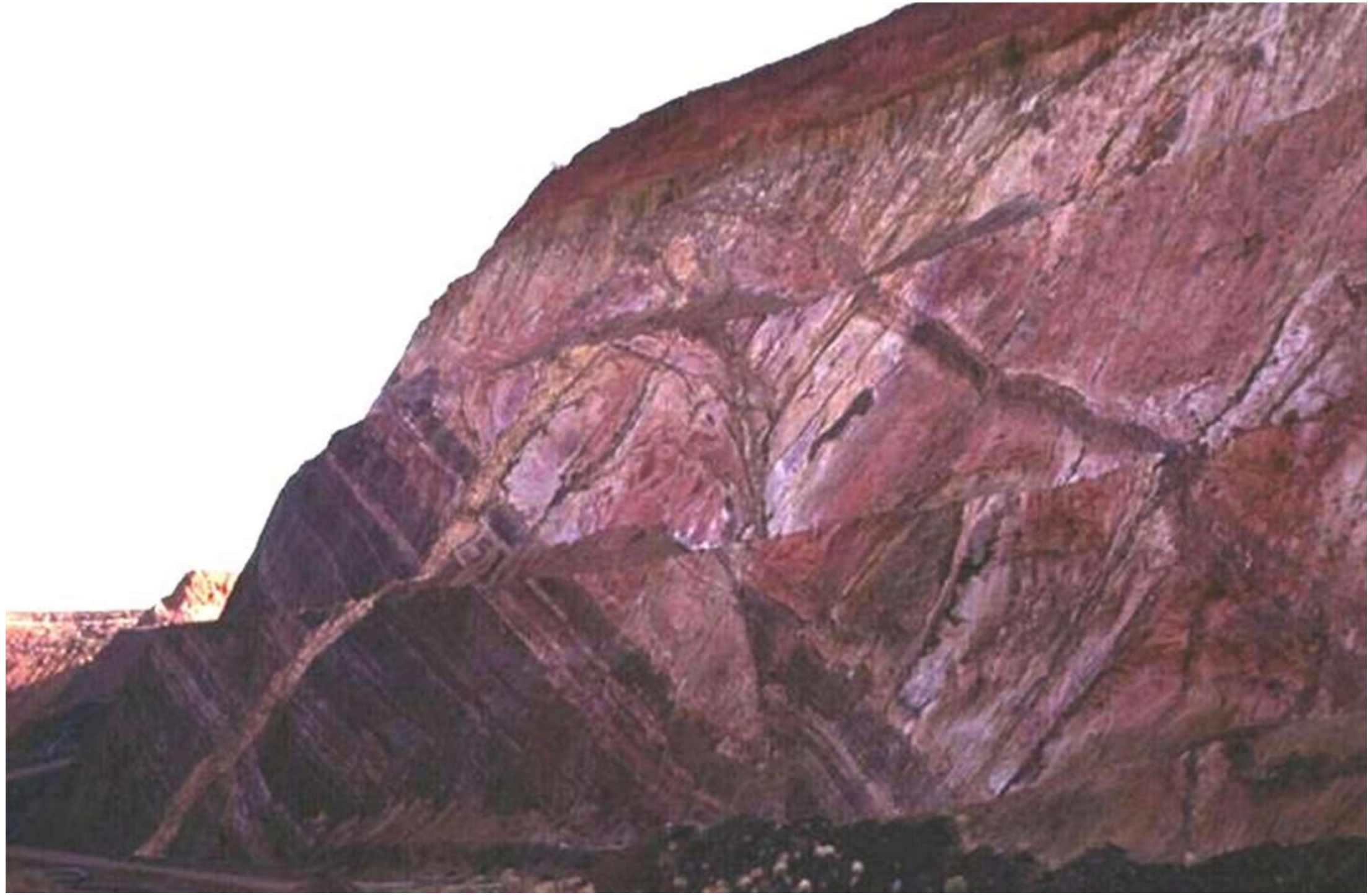
Describe;

The assumptions made regarding geotechnical parameters eg. Pit slopes, pre-production drilling and structural geology;

Geo-hydrological status – extent of water testing, is the pit slope design dry or wet; and

The Mineral Resource model used for pit optimisation Smallest Mining Unit (SMU)

Complicated Structures



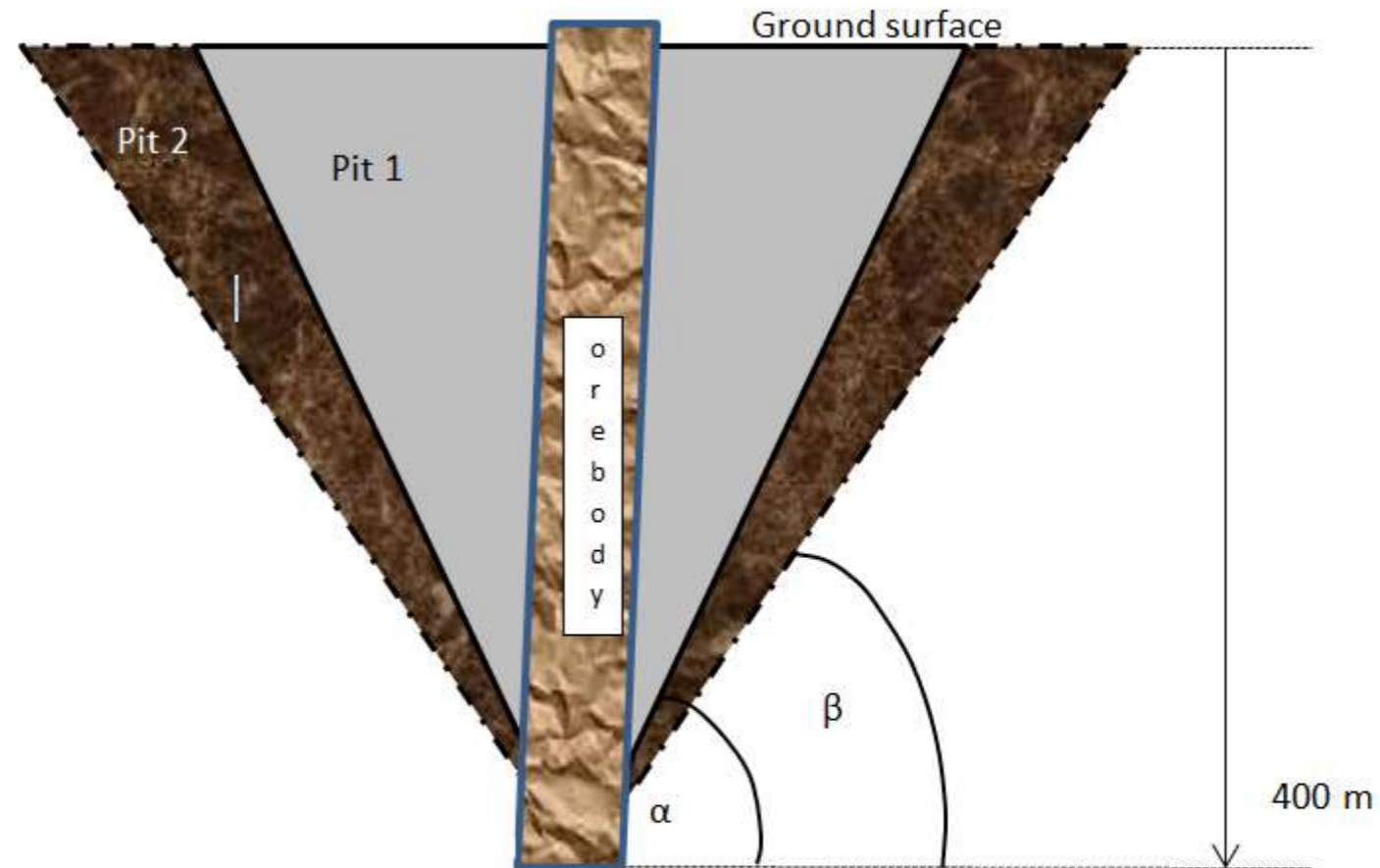
Complex structural geology



Complex structural geology

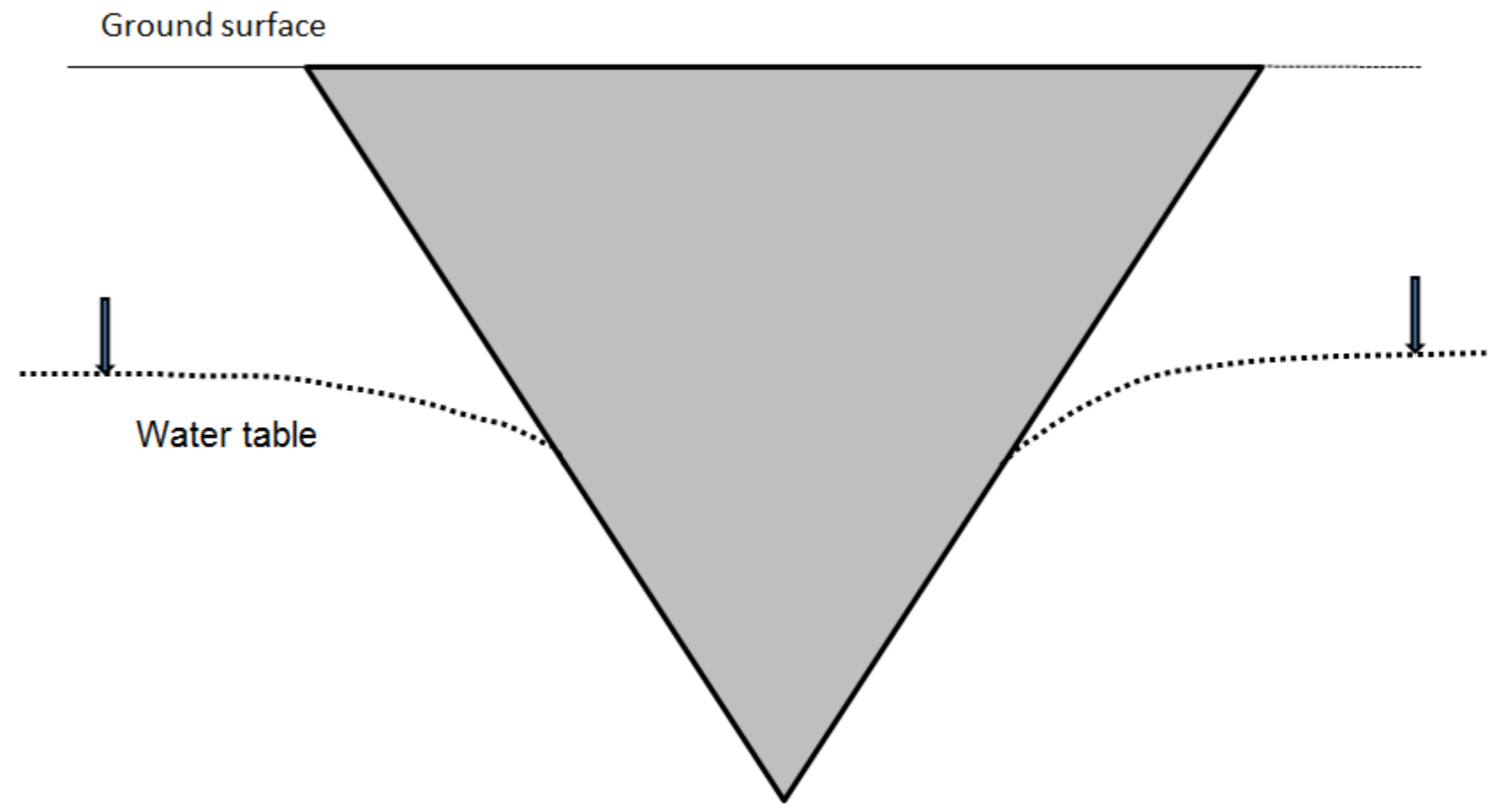


Impact of slope angles on pit economics

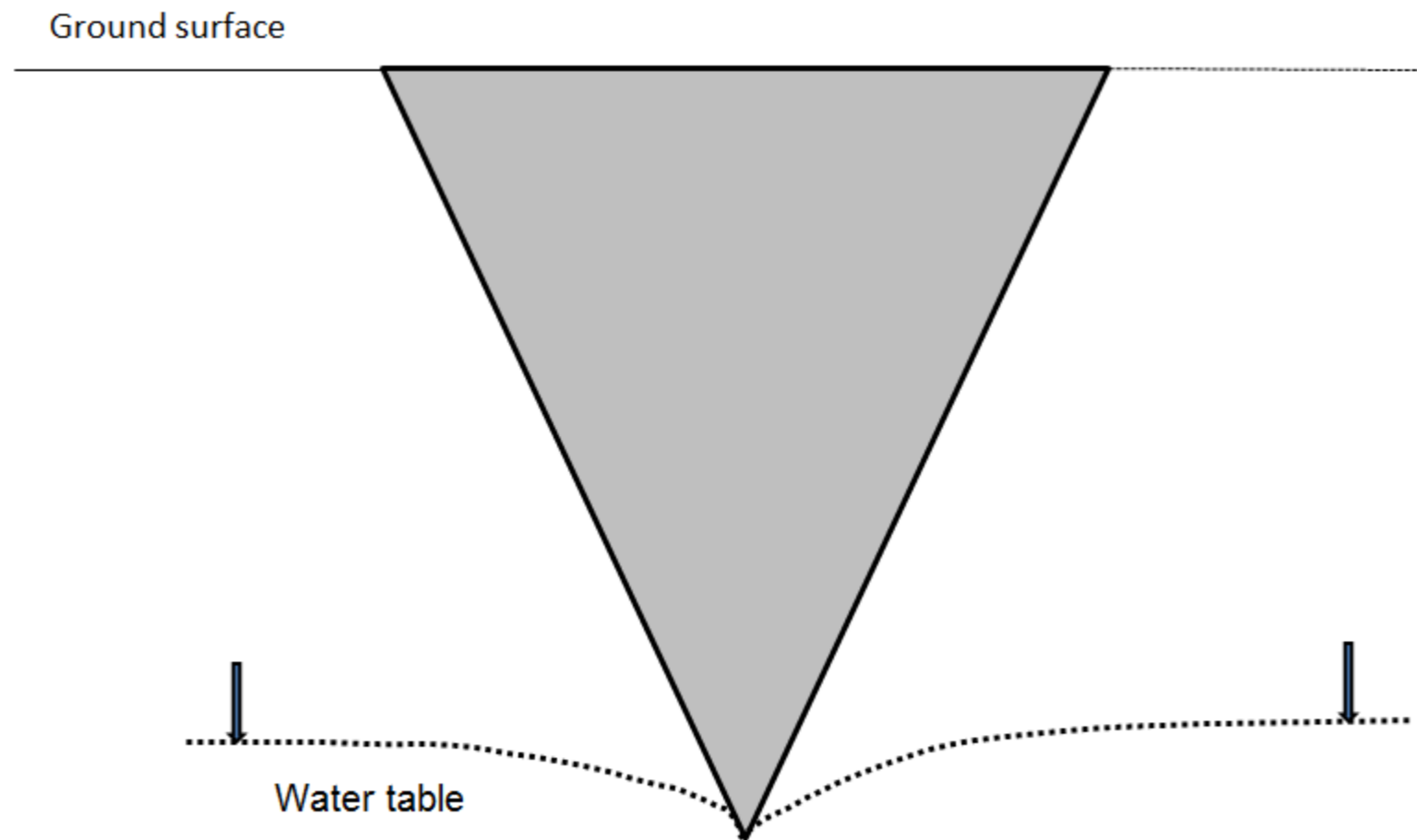


	Pit 1	Pit 2	Pit 3
Slope - degrees	60	59	45
Waste - Mt	134	141	291
% Waste increase	Base Case	6%	117%

Wet wall slope pit mining



Dry wall slope pit mining



Bingham Canyon



Slope failure



Describe;

Mining dilution factors used;

Mining recovery factors; and

The extent to which Inferred Resources are contained in the pit production schedule and the sensitivity of the outcome to their inclusion

Dilution

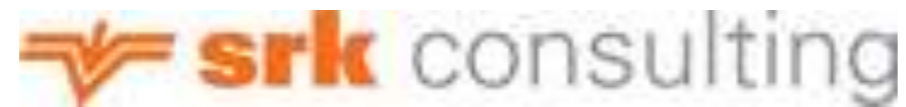




Always a pot of gold at the end of the rainbow



Acknowledgements



ALL SLIDES

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Any Questions?