STOPE OPTIMISER

The Vulcan Stope Optimiser saves time and increases accuracy in underground stope design. Individual designs take into account stope geometry along with geological and geotechnical restraints.

HOW DOES IT WORK?

INPUT
Stope Optimiser requires only a block model and either grade, value or density variables. Simply enter your specifications.

Options include:
- Stope surface control
- Additional model variables
- Exclusion zones
- Dip and dip direction
- Orientation of stopes (edited interactively with the model)
- Optimisation extents (edited interactively with the model)
- Create or specify irregular frameworks
- Variable cutoffs based on position or stope size
- Head grade

OUTPUT
Once data is entered, the Stope Optimiser automatically produces stope shapes to specification, in a repeatable and optimal way. Splitting, smoothing and merging options allow users to fine tune desired stope shapes.

The following reports can be generated:
- Valid stope triangulations
- Design strings with side walls and base plate
- Verification triangulations
- Stope reports

YOUR QUESTIONS ANSWERED

Where does the data come from?
Data comes from a Vulcan block model. Block models are easy to create, taking just minutes to set up.

How much setup work is required?
Setup takes only a few minutes. Once you set the parameters in a series of panels, Stope Optimiser does the rest.

How does Stope Optimiser account for waste stopes?
Exclusion variables established in the block model indicate whether to include waste stopes.

Can I perform sub-level stoping?
Yes. The initial stope orientation, size, and sub-levels are determined prior to starting.

Can I use any orientation of stope?
Yes. It is possible to apply any orientation of stope, from vertical to shallow dipping horizontal stopes.

Can I perform cutoff by grade or value?
Yes. You can also use cutoff factors of theoretical mining, recovery and processing costs.

TIME SAVING WITH VULCAN STOPE OPTIMISER

Manual Stope Design
800 stopes @ 4 minutes per stope
= 3200 minutes or 53.3 hours

Vulcan Stope Optimiser
800 stopes processed in 2684 seconds
= 44.73 minutes

A time saving of 3155.27 minutes or 52 hours!