

Numerical Modeling and Stability Analysis of Surface and Underground Mines

Selected Research and Project Experience:

Rio Tinto Kennecott Utah Copper (RTKC)

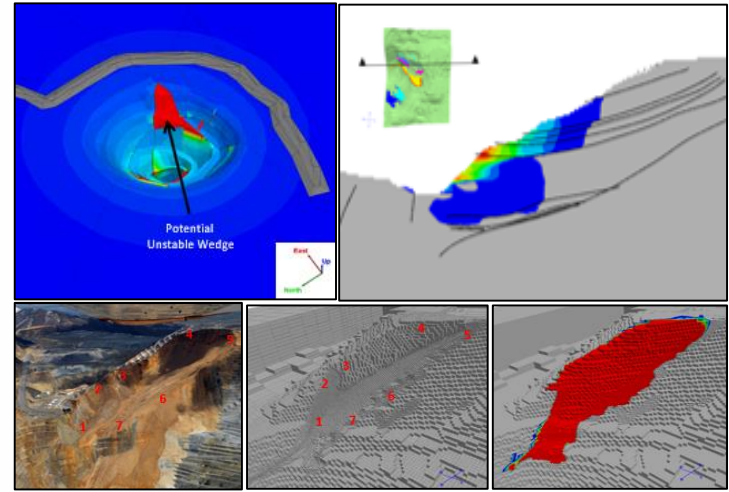
- Developed three-dimensional finite difference model using FLAC3D code to back analyze and study the stability of the East Wall of the Bingham Canyon mine.

BHP Billiton

- Subsidence Evaluation of the Proposed Jansen Mine.
- Preliminary Analysis and Selection of Ore-Bin Shape for the Jansen Mine Using Three-dimensional Numerical Analysis.
- Design criteria, creep analysis and geotechnical modeling of Jansen Potash Mine

Diavik Diamond Mine

- Developed a three-dimensional distinct element model using 3DEC code to assess the potential impact of mining induced instability at the pit walls on dike cut-off wall.



Field observation VS. 3D numerical modeling prediction
Back Analysis of a Slope Failure at an Open Pit Mine

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Bio: Dr. Sherizadeh has over 8 years of consulting experience. He has extensive experience in numerical analysis of stability of open pit slopes and underground mines. He has experience in elasto-plastic, visco-elastic and poro-elastic analysis of stress, including stress analysis of large open-pit mines, underground mines, underground storage schemes, and tunnels for transportation.

Keywords

#Mining, #Rock Mechanics, #Geomechanics, #Numerical Modeling, #Slope Stability, #Waste Disposal, #Subsidence Modeling, #CO2 Sequestration, #Optimization, #Support Design, #Geothermal Energy Recovery, #Slope Monitoring, #Block Caving, #Waste Dump Stability Analysis, #Pit Lake Studies, #3D Imaging, #DFN, #Pillar Design, #Flac3D, #3DEC.