

# SIMULATION in MINING



INCREASE reliability & availability  
IMPROVE safety, service & cost



Simulation can help envision and analyze your system with variability in mind and make informed decisions everyday.

## Benefits of Simulation

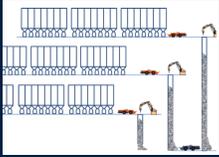
- Identify bottlenecks & improvement opportunities
- Analyze complex systems with many interdependent factors and high levels of variability
- Make rapid decisions by integrating with enterprise systems



# OUR CAPABILITIES

MOSIMTEC has completed numerous projects and continues to advance the application of simulation in the mining industry.

## Underground Mining



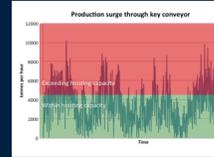
Assisted client in evaluating plans for new underground mine. Focus was on reviewing the capacity constraints and infrastructure of the material handling system to ensure that the system was robust enough to meet expected needs and contingencies.

## Surface Mining



For open-pit mines, simulation models are both an analytical & visualization tool to communicate planned operation and supply chain. Apply this tool to help with engineering design and process improvement across mine, processing, transload, and port.

## Asset Utilization



Evaluate the supply chain to test performance under a range of different situations, events, and constraints. Focus on key areas like cost, capacity, equipment, inventory, transit time, supply-demand and bottlenecks. Study their impact on financials.

## Maintenance & Scheduling



Typical mines have many variables that interact in a non-intuitive manner. Simulation models allow us to explore relationships, model repairs & downtimes, labor utilization and scheduling of labor and assets. Include cost to see financial risk.

## Pit-to-Port Material Handling



Unlike off-the-shelf mining software, simulation models allow you to model the pit-to-port operation with multimodal transportation, storages, transshipment, impact of port operations. Integrated view helps identify local and global risk.

## Truck & Shovel Haulage



Simulate the movement of truck and shovel fleet to estimate the cycle times, mine throughput and utilization. Incorporate rimpull curve and haul route properties to validate mine plans and forecast operations down to a small variance from the real operations.

Simulating your mine and related systems in a virtual environment allows you to develop the necessary insights to make more informed decisions.

Call us to setup a  
webinar  
571-766-8050