

# MINING HYDROGEOLOGY

## GROUNDWATER SPECIALISTS

Defining and quantifying the interactions between groundwater, geology, biosphere, & mine operations

- Characterization & analysis
- Geologic & groundwater modeling
- Groundwater interactions with, springs, streams, lakes, wetlands vegetation, aquatic species
- Impact of groundwater pumping
- Contaminant movement
- Seasonal and long-term variability
- Environmental mitigation & engineering controls

DEWATERING /  
DEPRESSURIZATION  
ENVIRONMENTAL IMPACTS  
MITIGATION ENGINEERING  
DESIGN



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REGULATORY PERMITTING  
&  
ENGINEERING MITIGATION  
DESIGN

# MINING HYDROGEOLOGY

## SCOPING LEVEL DEPRESSURIZATION INVESTIGATION TO COMPREHENSIVE DESIGN

Identifying & quantifying  
significant  
hydrogeologic and  
engineering conditions

## DIAGNOSIS OF FAILURE CONDITIONS & DESIGN OF ENGINEERED CORRECTIVE ACTIONS

## DEPRESSURIZATION / DEWATERING

- Hydrogeologic characterization
- Design and evaluation of depressurization options
- Targeting zones of enhanced natural permeability
- Artificially enhancing drainage
- Engineered-control structure design
- Performance under varying operational & climate conditions

## SUPPORT SERVICES

Study plans  
Monitoring networks, well design  
Monitoring & sampling plans  
Hydraulic testing & interpretation  
3D Modeling and analysis  
Regulatory permits  
Management plans

## SUPPORT FOR PERMITTING, OPERATIONAL, AND CLOSURE CHALLENGES