

Mine Closure and Reclamation

Our integrated and multidisciplinary expertise in post-operational site use and risk management is utilised to develop closure plans for new and existing mining operations that are compatible with the surrounding environment, regulatory requirements, and cost efficiency considerations. Our engineering design and construction experience provides the expertise for accurate reclamation cost estimating and establishing appropriate surety amounts.

Pipelines and Pump Stations

Our experience in mine slurry and water pipelines and pump stations ranges from design, specification, and construction monitoring, including test monitoring to operational assistance and performance monitoring. By tailoring pump and pipeline selection to a range of flows, pressures, and material conditions anticipated over the project life, we design cost-effective and environmentally sound slurry and water handling systems. Our extensive experience in the management and handling of slurry streams includes tailings, concentrates, and cyclone sands.

Environment and Mining

Through all phases of mining, we offer a full complement of environmental and social expertise integrated with our mining project development services to support timely acquisition of permits. Services include the assessment of water, acid rock drainage/metal leaching (ARD/ML) potential, air, biological, and social environments. Additionally, our environmental and social studies are tailored to certify compliance with international lending institution standards, thereby expediting project financing.

Heap Leach Pad Design

From straight forward sites to those in physically and environmentally challenging locations, our experience in designing heap leach pads encompasses all locations and sizes and includes some of the largest heap leaching operations in the world. Expertise is provided in a variety of liner and solution collection systems, loading, and solution management strategies, including for high fines content ores and wet and cold regions applications.

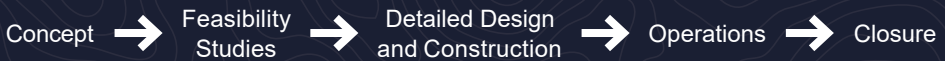


Mining Services

Integrated engineering and environmental solutions to help you achieve more



Supporting you through all stages of mine development



Knight Piésold's mining expertise has been applied to hundreds of surface and underground mining projects worldwide, under a wide range of conditions. From our City of London office, we provide comprehensive multidisciplinary services through all stages of mine development, from evaluation and permitting to construction and closure.

Our professionals work seamlessly together to build value for your project. We complete successful stakeholder engagement, environmental studies, and government liaison services built on innovative and cost-effective engineering solutions.

Our clients in the international mining industry trust Knight Piésold to successfully move their projects forward through to completion. We work with the client team to identify and reduce risk throughout the project lifecycle.

Knight Piésold adds value to projects through engineering to the highest environmental standard, conducting effective engagement of communities and governments while supporting compliance with lending institutions. This approach increases efficiency, return on investment, and enhances the reputational advantage of our clients' projects.

Our mining expertise includes the following:

- Geotechnical engineering
- Rock mechanics
- Tailings management
- GIST Assessments
- Waste and water management
- Waste characterisation
- Heap leach pad design
- Pipelines and pump stations
- Mine closure and reclamation
- Environment and mining

Tailings Management

While siting, designing, and monitoring the construction of all types of tailings management systems in every major mining district around the world, we have pioneered and advanced the development of alternative tailings management technologies, such as sub-aqueous systems, drained sub-aerial systems, paste tailings disposal, and dewatered filtered tailings systems. We provide comprehensive GISTMconforming design and operational expertise for tailings management tailored to the specific features of each site and needs of each client.

Geotechnical Engineering

From site assessment through to construction supervision and QA/QC, we have extensive experience in the full spectrum of geotechnical services for mining projects. Geotechnical conditions of each project site are unique and our approach is to tailor the investigations to the degree of complexity of the site and provide an appropriate level of planning and design for the requirements of each client.

Waste and Water Management

We have designed award-winning integrated waste and water management systems for mining projects. These systems involve a thorough understanding of the site specific hydrometeorology, surface water and groundwater hydrology, waste characterisation, environmental and permit limitations, and client preferred operational philosophies. Probabilistic modelling is commonly adopted to confirm that all extreme scenarios are identified and addressed to meet sustainability objectives.

Rock Mechanics

Through sound rock engineering principles, we implement advanced, cost-effective investigation and analytical methods to evaluate the geomechanical characteristics of various complex geological and mining conditions. We design and manage site investigation programs, develop pit slope designs, conduct stability assessments and operational monitoring for active open pit slopes, and evaluate stabilisation/support systems for underground mines.