

Adding value. Delivering results.

Integrated Engineering and Environmental services to help you achieve more.







27 offices WORLDWIDE

> Presence in 15 COUNTRIES

About Our Company

Knight Piésold is a global consulting firm that provides specialized services to the mining, power, water resources, infrastructure, and oil and gas industries. We are engineers, environmental scientists, geoscientists, and technologists who focus on creating value at every stage of a project through quality driven, sustainable solutions.

Established in 1921, we have a multidisciplinary team of talented professionals based in 28 offices across North and South America, Europe, Africa, Australia, and Asia. At Knight Piésold, we work as one team, mobilizing local and global resources to meet the needs of each client.

We work closely with our clients, understanding unique project characteristics within the context of today's global business environment.

With a commitment to safety, quality, and technical excellence, Knight Piésold specializes in creating customized solutions at every stage of a project life cycle, while delivering sustainable, bottom-line results. We have led numerous award-winning projects to completion, and have fostered many longterm client relationships that hold strong today.





PRACTICING MINING ENGINEERING FOR HUNDREDS OF SURFACE AND UNDERGROUND PROJECTS WORLDWIDE

In the Mining sector, the name Knight Piésold has become synonymous with quality civil engineering, environmental science and construction support for mine infrastructure.

Knight Piésold's mining expertise has been applied to hundreds of surface and underground mining projects worldwide, under a wide range of biophysical conditions. 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.

By providing quality and environmentally sound engineering and science, 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, indigenous peoples, and governments, and ensuring compliance with lending institutions. This approach increases efficiency, return on investment, and the reputational advantage of our clients' projects.

Project Locations:

Knight Piésold has been active in Perú, Chile, Brazil, Argentina, Mexico, Dominic Republic, United States, Canada, Australia, UK, South Africa, Botswana, Cameroon, Ethiopia, Eritrea, Ghana, Guinea, Burkina Faso, Mali, Mozambique, Malawi, Madagascar, Namibia, Zambia, Zimbabwe, Tanzania, Israel, Uganda, Rwanda, Nigeria, Sudan, Philippines, Indonesia, among others.









ENGINEERING AND ENVIRONMENTAL SERVICES AT EVERY STAGE OF A MINE'S LIFE CYCLE

The mining industry is constantly evolving and adapting in response to societal needs and advances in technology. For decades, we have built a leading position in the research, design, and implementation of tailings and water management and heap leach systems, in addition to geotechnical design for open pit and underground mine developments. We provide specialized services at all project stages, from early exploration, through engineering and environmental studies and on to construction, operations, and closure.

The research, design and implementation of pioneering solutions to mining waste management (tailings) and heap leach systems, as well as specialist geotechnical investigations for mine developments, have positioned our company as the foremost leader in these fields. Projects include gold, platinum, nickel, phosphates, chrome, fluorspar, copper, cobalt, manganese, zinc, uranium, coal, diamond, graphite, gypsum, ash and heavy mineral sands mines.As a result, members of the company have extensive capabilities and experience in most aspects of mine infrastructure development and can therefore offer a full spectrum of services. For all these reasons, Knight Piésold is widely known for its innovative solutions and efficient application of technology.

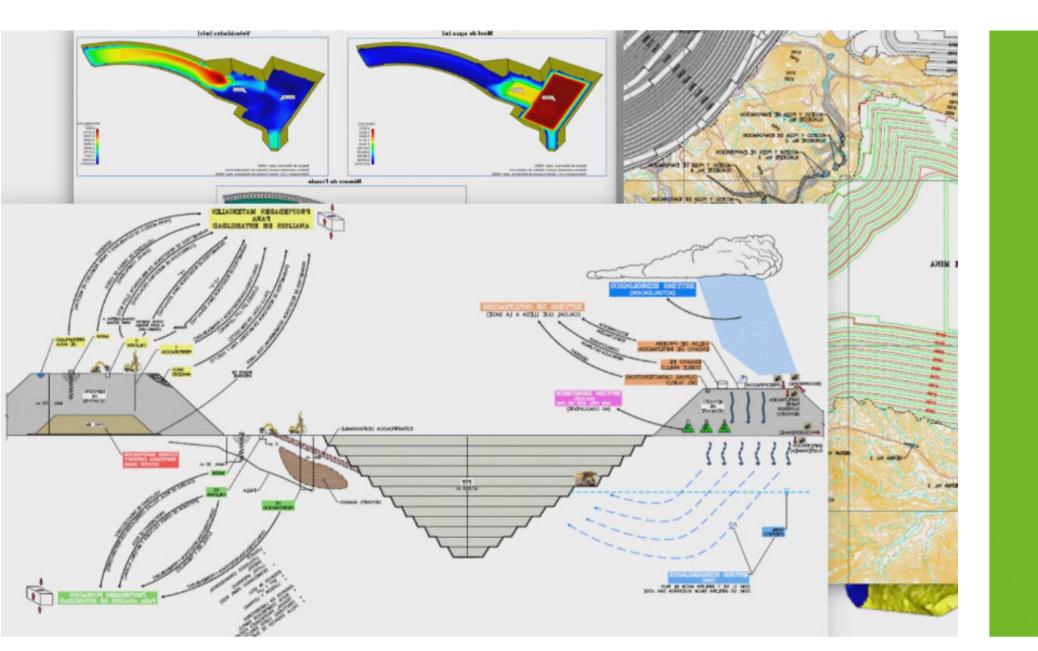


Our Services

Tailings Management

We design and supervise 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, codisposal, comingling and dewatered filtered tailings systems. We provide complete and comprehensive design and operational expertise for tailings management tailored to the specific features of each site and the needs of each client.





Waste dumps

We have participated in the design of large-scale waste dumps, taking into account comprehensive features, from geotechnical aspects and material characterization, to water management and geochemical aspects. Our designs fully comply with all the facilities required for these type of structures: placement of material, operation and monitoring.

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 site 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 sitespecific hydrometeorology, surface water and groundwater hydrology, waste characteristics, environmental and permit limitations, and client preferred operational philosophies. Probabilistic modelling is commonly adopted to confirm that all extreme scenarios are identified and addressed in order to achieve sustainability objectives.

Waste characterization and geochemistry

Our overall understanding of the critical components of a successful mine development allows us to develop optimized and environmentally safe operations. Our expertise in waste characterization, field and laboratory testing, numerical modelling, and the practical application of preventative strategies has been applied to numerous successful mining projects at various stages of development.





Pipelines and Pump Stations

Our experience in mine slurry and water pipelines and pump stations ranges from design, specification, and construction supervision, including test monitoring, followed by 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 ensure cost-effective and environmentally sound slurry and water handling. Our extensive experience in the management and handling of slurry streams includes tailings, concentrates, and cyclone sands.

Mine Closure and Reclamation

Our integrated and multidisciplinary expertise in postoperational site security and risk management is used 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 for establishing appropriate surety amounts.





Open pit and underground rock mechanics

Through the application of sound engineering principles we implement advanced, cost-effective investigation and analytical methods to evaluate the likely rock mass performance under a range of geological and mining conditions. We regularly design and manage complex site investigation programs under challenging conditions, develop open pit slope recommendations, assess the stability of surface pillars, and provide ongoing support to a range of operating underground mines.

Heap Leach Pad Design

From relatively 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.



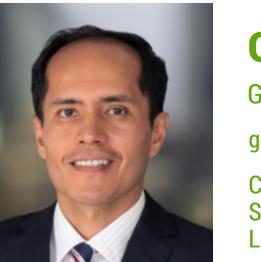


Environment, renewable Energy and Mining

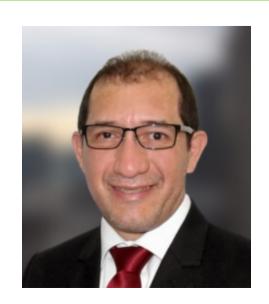
Our environmental and social expertise integrated with our mining project development services, support timely acquisition of all required permits: assessment of water, acid rock drainage/metal leaching (ARD/ML) potential, air, biological, and social environments. Additionally, our environmental and social studies are tailored to certify compliance with international lending institution standards, thereby expediting project financing. In adittion, our approach in incorporating renewable energy schemes into existing and planned mining projects can improve the mine's bottom line through renewable energy resource evaluation and integration.



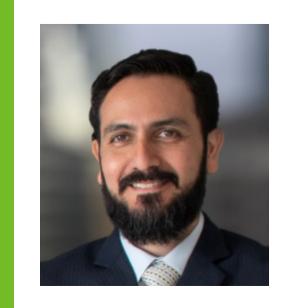
KP Perú Leadership



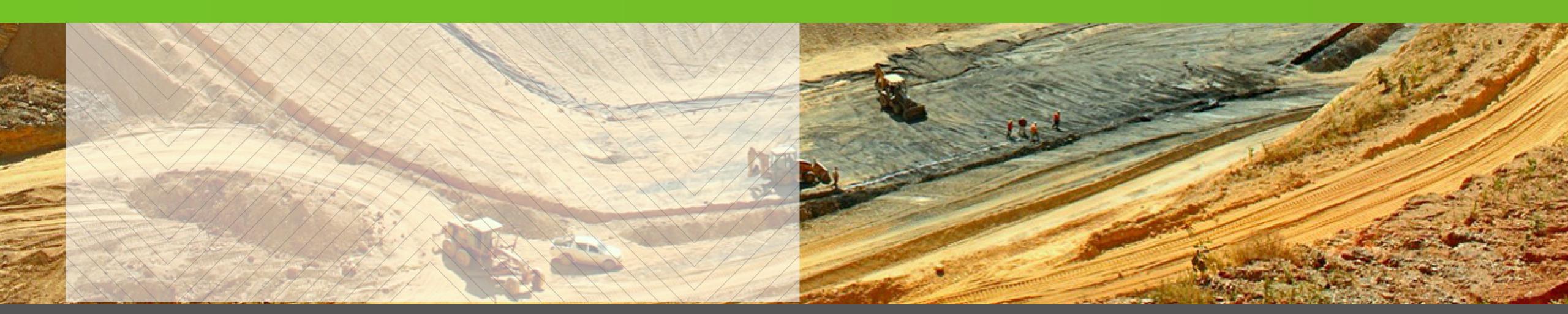
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