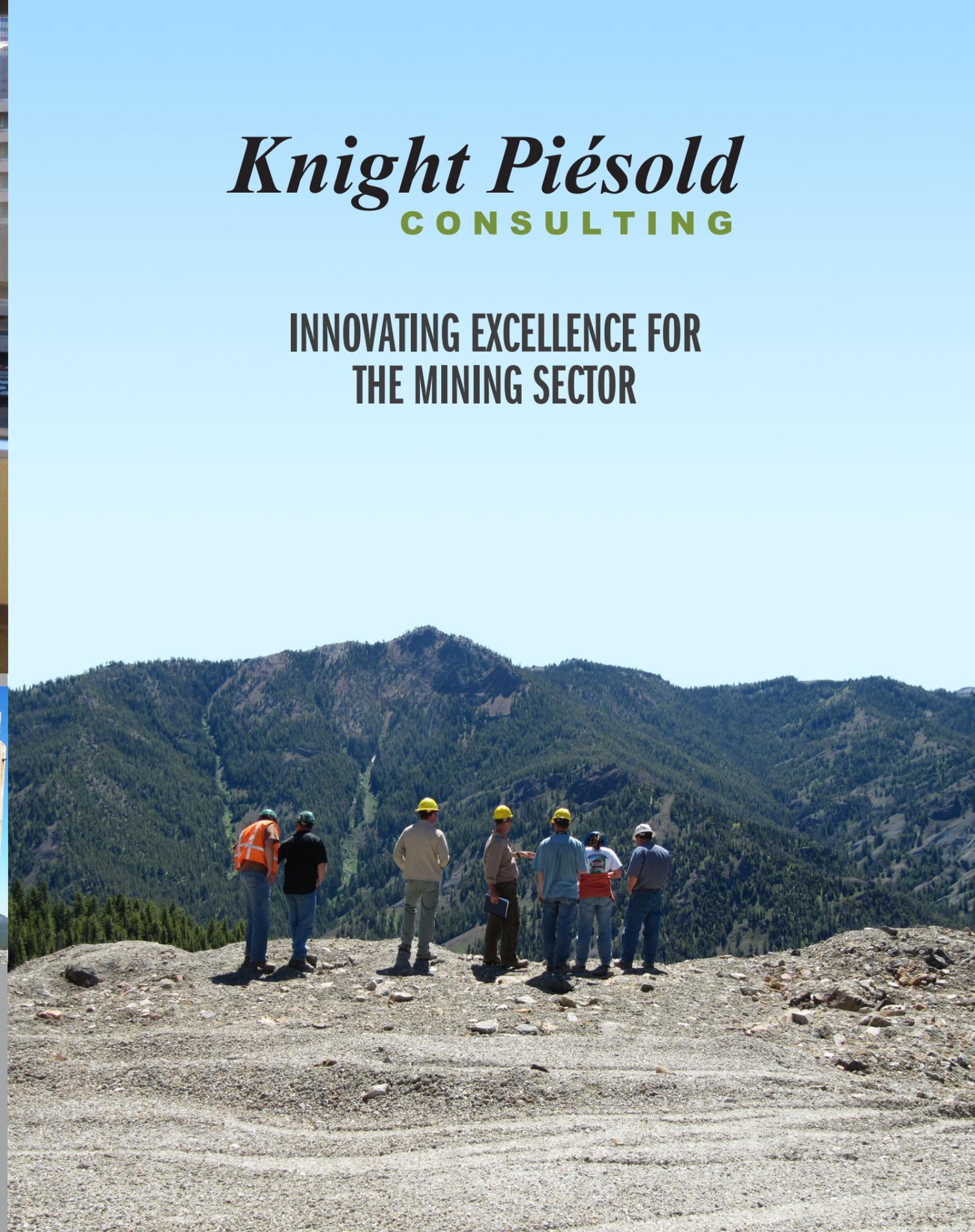
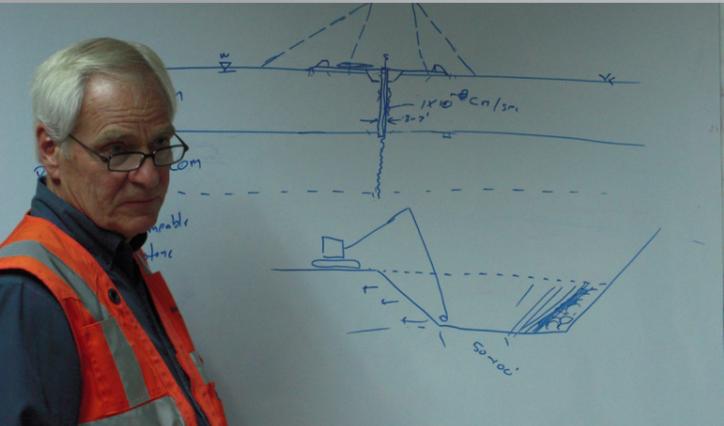




Knight Piésold CONSULTING

INNOVATING EXCELLENCE FOR
THE MINING SECTOR



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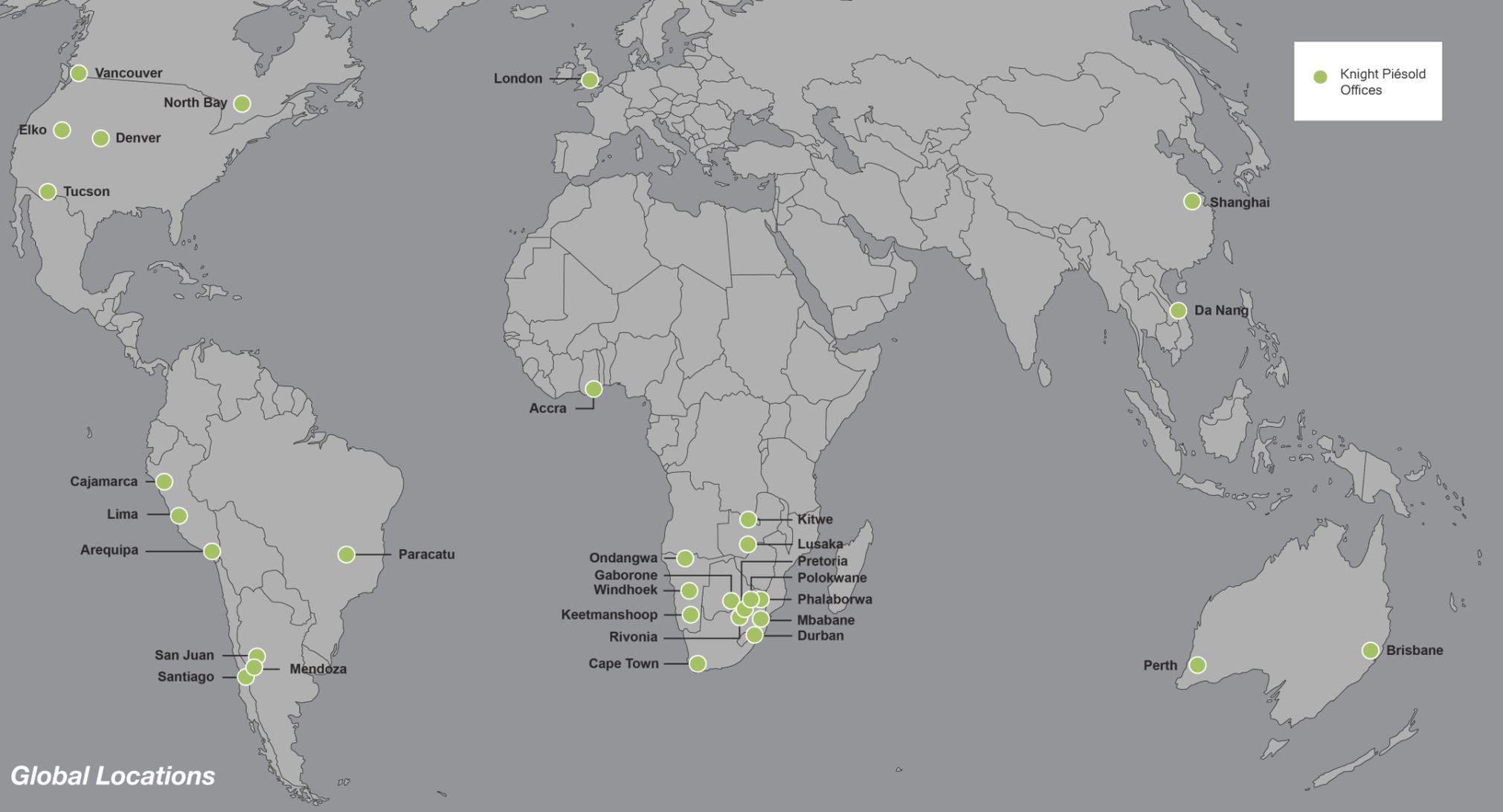


Knight Piésold
CONSULTING

**Innovating
excellence for
the mining sector**

*Knight Piésold continues to carve out
a name for itself through its inventive
approach to client solutions and its
knack for customer relations*

Written by: Robert Spence Produced by: Andy Turner



management, tailings disposal, heap leach pads, rock mechanics, groundwater evaluation, water supply, water management and environmental services.

“As a global company, we’re quite small compared to our competitors,” said Ulrich. “Our competitive advantage is in our expertise and our client relationships. This means that even in an industry downturn, we are managing to stay relatively busy. For example, right now we are watching after a very large tailings dam construction job at Round Mountain in Nevada. It’s possibly 2015’s largest construction project at a mine site in Nevada.”

According to Ulrich, while consulting firms and their expertise can sometimes be deemed as a commodity during rough times, the real distinction for clients is how they’re treated by their consultants.

“We’ve all had good and bad experiences with customer service. At restaurants, for example, we’ve all had that one waiter who seems to disappear when we need the bill. For us, we put ourselves in our clients’ shoes and strive to

“Our competitive advantage is in our expertise and our client relationships”

– Bryan Ulrich, Senior Vice President of Knight Piésold USA

Knight Piésold was established in 1921 when Dr. Francis Edgar Kanthack set up shop in Johannesburg, South Africa as an engineering consultant. Over the years, the company has developed into a major global consulting firm for the mining, power, water, transportation and construction sectors by delivering high quality specialty services with respect to social, environmental and economic responsibilities.

Today, the employee-owned company is comprised of over 800 experienced professionals, including consulting engineers and environmental scientists, and continues to carve out a name for

itself through its inventive approach to client solutions and its knack for customer relations. “We have a global reach, but we function like a boutique provider at heart,” explained Bryan Ulrich, Senior Vice President of Knight Piésold’s USA division.

Pillars of strength

In terms of mining services, Knight Piésold specializes in the research, design and implementation of innovative solutions for waste



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MINING GLOBAL

understand as much as we can about their operations and their needs,” Ulrich said.

“Because of our mentality towards customer service, we tend to get a lot of repeat business from previous clients. A lot of times when clients move on to other companies, they bring us on board at their new company. Customer service is one of our pillars of strength and it’s making a huge impact for us.”

Innovation continues to be another pillar of strength for the company.

“Engineers are taught to be linear

and creative thinkers. Our innovation comes from making site-specific solutions for each project, and it can sometimes be very challenging and rewarding” said Ulrich.

“At the Rochester mine in Nevada, there is a general absence of clay for construction of heap leach facilities, so we’ve very carefully designed those facilities to use a geosynthetic clay layer product (GCL), rather than the traditional clay layer that goes along with the geomembrane,” said Ulrich.

Sharing knowledge

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Knight Piésold USA Management Team

emphasis on disseminating knowledge.

“Internally, we hold training forums where several of our offices get together so we can exchange experiences and expertise on several topics. We just got back from Lima where we held a forum on tailings management. This is in addition to our normal mentoring and on-the-job-training,” Ulrich said.

In addition to traditional educational channels such as publishing papers and participating in industry conferences, the company also organizes an annual event called Elko Roundtable. Since 2005, the all-day, no-cost event has been key in sharing information with clients and strategic vendors.

Past topics have included heap leaching, tailings management, mine closure, sustainability, paste and filtered tailings, co-placement of mine waste, and several other themes.

“The purpose of the Roundtable is to exchange ideas and information pertaining to broad topics revolving around the day’s selected subject,” said Ulrich. “Compared to traditional conferences and symposia, the

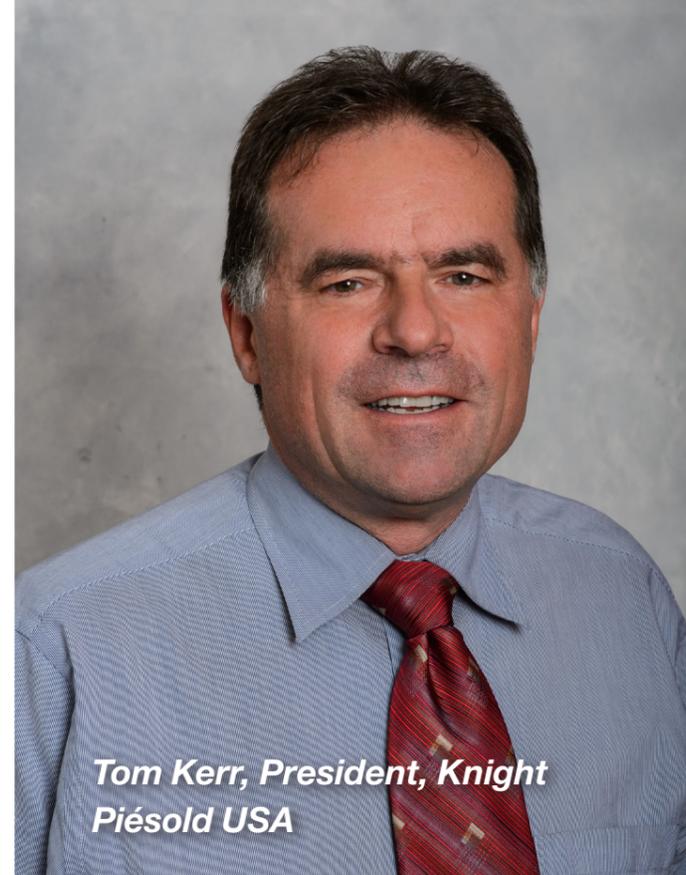
Roundtable tends to provide a much less inhibited format for discussion — lively discussions and helpful tangential departures are encouraged.”

Mining Engineering magazine publishes Knight Piésold’s reports from the Roundtable event on several occasions. Additionally, the event has its own web page where all presentations and publications are archived for easy reference.

World-class leader

The company has positioned itself as a leader in its fields, having been utilized on hundreds of projects around the world, including some of the biggest and most challenging surface and underground mining projects in the last century. One such project is the storied Yanacocha gold mine in Cajamarca, Peru.

South America’s largest gold mine — and the second largest in the world — Yanacocha stretches approximately 535 square miles and is comprised of four operations: Cerro Yanacocha, La Quinoa, Carachugo and Maqui Maqui. Its heap leach pads and associated ponds include a tailings storage



Tom Kerr, President, Knight Piésold USA



Bryan Ulrich, Senior Vice President, Knight Piésold USA

facility, process plants, treatment plants and several other facilities.

“In terms of size and production, Yanacocha is very impressive. We’re really proud to have been a minor partner in the project,” said Ulrich.

Since 1994, Knight Piésold has actively been involved with Yanacocha providing everything from conceptual to final designs, as well as construction management, quality control/quality assurance, support during permitting processes and operational support.

The company is responsible for designing the heap leach pads and associated structures including ponds, access roads and

channels, as well as providing civil and geotechnical design for major infrastructures, technical support and water management technical support.

“The La Quinoa tailings facility — which resides in an active heap leach facility — is one of a kind,” explained Ulrich. It functions as an innovation that was developed based on the needs of the project.

“The fluids in the two facilities don’t intermingle for obvious reasons, but it was a novel solution to a difficult problem of land constraints and minimizing our footprint. We designed a very similar facility for an operator in North



*Knights Piésold USA Team
Directing Field Reconnaissance*

America, which had an altogether different set of project needs and challenges.”

Ulrich and his teams are currently working on an array of projects scattered across the globe, including a variety in Saudi Arabia, Latin America and the United States.

Moving forward

While the success of Knight Piésold can be told through the effective completion of the projects it undertakes, the company continues to be recognized for a wide range of achievements and accolades. In the last few years, the company has earned several top honors for

engineering excellence and project management as well as recognition as a Top Employer.

“We’re very appreciative of all the recognition and awards we’ve received in the past,” said Ulrich.

As a sign of things to come, the company continues to undertake some of the biggest projects in the mining industry. Upcoming and ongoing projects for Knight Piésold’s global practices include: the Fort Knox Mine in Alaska; the Kinsevere Copper Mine in the Democratic Republic of the Congo; and the Palmaerejo Silver-Gold project in Mexico.

“A lot of the projects that were identified a long time ago, which at the time were too difficult to tackle, are starting to come up and become attractive again. Design-wise, those have been some really interesting projects,” said Ulrich.

“Recently, there have been some very large projects with some of the world’s big gold miners like AngloGold in Colombia, Hudbay in Peru and Rosemont in Arizona. In fact, we’re currently in the advanced design stages of creating a world-class filtered tailings facility for Rosemont in Arizona.”

Moving forward, Knight Piésold will continue to focus on providing innovative solutions to its clients, while maintaining the company’s vision and values in the process.

“Our goal is to have 15-20 years of rolling sustained growth and stability,” Ulrich concluded.

Company Information

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