

Knight Piésold turns 100

An incredible success journey, continued

This year, Level 1 BBBEE, employee-owned **Knight Piésold** celebrates a milestone achievement few companies ever realise – 100 years in business. Its journey over the decades has resulted in the establishment of a truly global brand, with a very successful South African subsidiary. “Today, we proudly proclaim to be one of the oldest African owned engineering consultancy firms in Africa, with an internationally recognised pedigree of skill sets, committed to serving and uplifting the local markets in which we operate,” **MD VISHAL HARIPERSAD** tells **LAURA CORNISH**.

It is Knight Piésold Southern Africa’s (KPSA) approach to doing business that has largely resulted in the successes it has achieved, and will continue to achieve moving forward. “We are African at heart and we embrace the local cultures of any jurisdiction we operate in. This has resulted in the creation of one of the most progressive, fastest growing and diligent companies on the continent,” Haripersad continues.

The company is largely recognised for its mine residue (tailings and heap leach deposition) design and execution capabilities within the mining sector,

but its expertise stretches much further, with a well-established footprint and track record of delivering major infrastructure projects as well.

“As we move into the next stage of building another 100 years in the industries we serve, our intention is to deliver on a five-year growth strategy which will see us build our tailings reputation further, while showcasing and delivering our repertoire of infrastructure and geotechnical expertise skills to the African mining sector as well,” Haripersad highlights.

In addition to road, railway, port and airport experience, Knight Piésold has

delivered a wide range of water and power projects as well – two areas of great interest to the mining sector at present. Cost effective water and power security currently play a significant role in the financial viability of mining projects and this is an area which the company can contribute towards – particularly renewable power projects that offer the industry a greener footprint.

The company has more recently delivered a number of run-of-river hydropower schemes in Zambia and the Democratic Republic of Congo (DRC), regions it has a particularly strong focus and presence in. “Barrick’s Azambi

Installation of lining for a TSF in Tanzania

hydropower plant for its Kibali gold mine is the perfect demonstration of what we can deliver in both water and power. The greater central African region would benefit enormously from similar projects.”

Why the DRC? Why Zambia?

Knight Piésold’s operating model within these two SADC countries demonstrates the extent of its commitment to being a responsible corporate citizen in the regions in which it operates.

“From a business perspective, these regions offer an abundance of work opportunities in the mining sectors specifically – but beyond this offer our business the opportunity to build a lasting legacy in the countries, one which contributes consistently to the upliftment of communities that in the long term will help grow the country in their own capacity,” Haripersad notes. “No project is undertaken by the company without contributing some of our profit margin to local upliftment and empowerment, over and above what is required of us. This identifies who we are.”

For example, Knight Piésold was the only consultancy firm in the DRC to provide sanitation equipment to communities during the lockdown period.

“Our objective is to be the largest local consulting firm in the DRC, backed by KPSA and our global group. We want to help engineers train and develop so that in time they can play a meaningful part in building and developing infrastructure and facilities within the DRC and their own businesses and we want to assist more Congolese people to play more meaningful and complex roles both within the mining sector and within the Congolese economy. As one of the few consulting firms fully compliant with the DRC’s sub-contracting legal requirements, we are fully capable of driving this,” Haripersad highlights.



A renewed focus on TSF structures has delivered new business opportunities for Knight Piésold



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A new tailings era

Knight Piésold remains true to its core tailings expertise which will over the next five-years contribute towards the revitalisation of unregulated and non-safety conforming tailings storage facilities (TSFs), as governed by the new global industry standard on tailings management which was launched on 5 August 2020.

“This new standard has highlighted a great many areas where existing tailings facilities fall short in terms of safety and possible failures or environment compromising situations. We have already seen a significant uptake in work related to resolving this and we expect this to continue for at least the next five years, providing significant potential for growth,” says Andrew Copeland, mining technical director for KPSA.

This work will more specifically include the addition of buttresses to some facilities to extend their lifespans in order that new facilities can be planned, while others will have to be fully retired. This entire process takes upwards of five years. In support of this work, Copeland says the company has also improved its tailings solution

A typical TSF





TSF structure showing underdrainage



Monitoring TSFs have become a critical focus area for mining companies

capabilities by adding software analysis – in terms of modelling, seepage analyses, etc. to its service offering to improve and support its design work further.

Over and above this, Knight Piésold can also provide tailings facility monitoring and can conduct audits on existing facilities as well as legacy dams. “In South Africa, many of these dams are effectively owned by the government who for now is prioritising the highly toxic dams – especially those related to asbestos and coal mining associated with low pH acid mine drainage,” Copeland reveals.

“Fortunately, we are still able to take a risk-based approach for very large tailings facilities – if it looks largely to be safe, with no record of elevated seepage and no history of sluffing, it can stay in operation with more rigorous monitoring and regular test work.”

For international mining houses, KPSA is able to collaborate with its global sister companies – providing clients with global expertise that provides comfort in obtaining world class structures.

And while the standard is not legislated, Copeland encourages even smaller mining companies to comply. The expenditure to build a standard-compliant TSF may be a costlier exercise but stakeholders and even insurers are no longer willing to invest in or cover businesses that are not governed by environment, social and governance (ESG) standards – and tailings forms a significant

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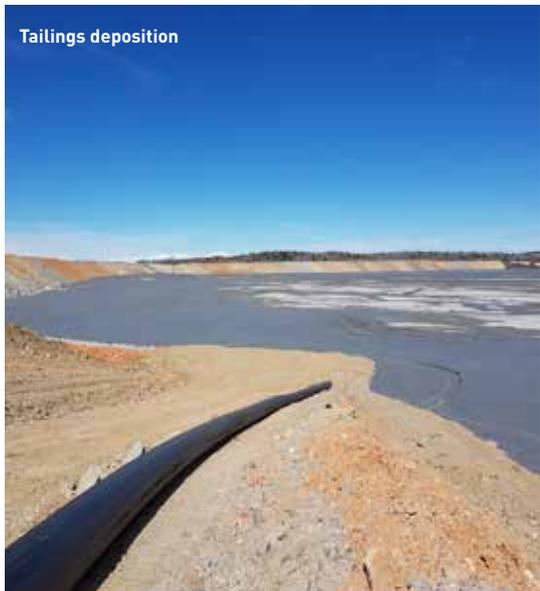
ANDREW COPELAND



component of this. “Compliance by the global tailings standards is simply no longer negotiable, for anyone.”

The delivery of a tailings facility also requires supporting engineering disciplines in the fields of geological work and water management – all of which comprise a part of Knight Piésold’s greater service offering. “Without these strong disciplines, the delivery of core tailings design and delivery is constrained,” Copeland notes.

As Knight Piésold enters a new decade and work century, it has never been better equipped to meet the environmental needs and project support work to ensure a sustainable mining industry – one that is also supporting greater urbanisation across Africa which the company is also able to support. **MRA**



Tailings deposition



“The delivery of hydropower projects in Africa is a key strength for Knight Piésold”

