

Q&A

After a successful career with Olympus, **Marcus Lake** has branched out and launched Phoenix Mining Technologies. **Paydirt** caught up with Lake recently to find out which trends he sees as shaping and changing the mining sector in the next decade.



Marcus Lake is managing director of Phoenix Mining Technologies

PD: How have mining technologies changed in the last 10 years?

ML: In my view innovation over the last 10 years has been slow. Yes, the current available technologies have become faster and more accurate, but we haven't really seen anything new in the market; something that the entire mining industry looks at and says "wow we need that". We do now have multiple scanning technologies and automation technologies and in addition to this, over the past few years we have seen a strong move towards data science; thus innovative software packages that can provide customers with a useful derivative information from the current data sources they have. Phoenix Mining Technologies is taking the most innovative products, housing them under our agency and allowing customers to choose their digitisation strategy.

PD: Is there enough being invested by mining companies in R&D?

ML: Mining companies for a long time have had R&D departments and I believe that the dollars spent has been on [automating] the trucks and shovels side of the business. Not enough money has been spent on extraction technologies. The orebody in the ground is a company's asset and I believe this is where more R&D money should be spent. R&D and innovation within the technology space is being funded and developed by the companies that make this equipment and software. They are then delivering new products, releasing them into the market and measuring the uptake.

PD: What is Phoenix distributing at the moment?

ML: Our main client is Geotek [UK]. They have been very successful in the soft rock [petroleum and academia] markets and are now pivoting into the mining industry. We have signed a global exclusive agreement for the sales and marketing within the mining vertical for their analytical equipment. Their new product is the BoxScan – a multi-sensor device combining Olympus pXRF, ASD Terra Spec, magnetic susceptibility and high-resolution line scan photography. We have also been engaged by Mining Plus to assist with the development of an innovation and technology strategy.

Later this year we will be the global partner for the new low-level gold technology out of Perth, Portable Parts per Billion (PPPB).

PD: What has been the most popular piece of equipment you have promoted to industry during your career?

ML: This is my 13th year within the mining technology business, for most of this time I was involved with Olympus and their analytical equipment, pXRF and pXRD. So naturally I am going to say that the pXRF has become the ultimate technological success story during my time. In all seriousness, since starting my career in the business we have seen pXRF go from a tool that was discounted by a fair number of industry professionals to a must-have analytical instrument that is now used within all sectors of our business. It is somewhat of a natural fit for us to be working with Geotek and PPPB. We have an ongoing commercial relationship with Olympus, as both of these technologies require a Vanta pXRF.

PD: Has there been a favourite mining story that you have followed?

ML: I would have to say that the most beneficial project that I have worked on was with Gold Fields Ltd. If there was one company that pioneered the application and use of pXRF, it would have to be Gold Fields. Gold Fields' geoscientists at the time understood the limitations of pXRF regarding actual gold analysis. Thus, they worked around these for analytical solutions required for gold exploration. It was this company which really provided this technology with the foothold it now enjoys. We are pleased to still be working with some of these people on Phoenix's new suite of technologies.

PD: What will the mining sector look like in the next few years?

ML: I believe that the we are at a major turning point for the entire industry. There has been a lot of chat about the digitisation and automation of this business. This talk is warranted as we are one of the last industries to modernise. With new technologies, in addition to the future technologies, we will see people's roles changing. Geoscientists will be able to be scientists again, instead of project managers and there will be many more new jobs created in data science and technology. My point of view, from the technology side, is that the future is bright and believe this augers well for the entire minerals extraction business.