



Given that the COVID-19 pandemic forced people to adapt to new ways of doing things, *CIM Magazine* is turning the spotlight on mining professionals we think exemplify that spirit of innovation. These are the...

NAMES TO KNOW 2021



DUSTIN ANGELO

THE RISK-AVERSE RISK TAKER

Dustin Angelo, president, CEO and co-founder, Novamera By Carolyn Gruske

Launching a mining technology startup is a risky business. So is running a junior gold mining company. Dustin Angelo has done both.

The former president and CEO of Anaconda Mining is now heading up Novamera – a company he and a colleague, Allan Cramm, spun out from Anaconda in 2019 – which is working with Memorial University of Newfoundland to develop a technological solution to mine steep narrow-vein deposits.

First, a pilot hole is drilled into the dip of a vein, guided by a near-borehole imaging tool (directed by algorithms and data analytics). Then, a large-diameter drill (measuring up to two metres) follows the pilot hole and excavates the material to the width of the vein. The cuttings are extracted using reverse-circulation air-lift assist methods, and the tailings are then deposited back into the drilled holes.

The deposits that Novamera targets are typically about one to two metres wide, and Angelo describes them as “near vertical,” ranging from 90 degrees to up to a 30-degree incline from vertical. They are the kind of uneconomical-to-mine deposits he encountered at Anaconda’s Romeo and Juliet site, which is located at the company’s Point Rousse Project, near Baie Verte, Newfoundland.

According to Angelo, he realized that the problem presented by Romeo and Juliet wasn’t an isolated situation. “We were a finalist at the Disrupt Mining contest in 2019. After the contest was over, we were speaking to folks in the audience and they told us they thought our technology could benefit their sites. What we quickly realized was the problem we were trying to solve at Anaconda Mining was a problem other folks had across the world.”

Novamera has tested its imaging technology at the Romeo and Juliet site, and plans to conduct a full field trial including production drilling there later this summer. Angelo wants to prove that the company’s solution can work in the field. Novamera anticipates having a commercialized product by the end of 2022.

As a startup, Angelo explained that Novamera took steps to reduce the risks associated with developing a new technology, including conducting short, fast trials that facilitate quick learning and the ability to fail quickly “so we don’t go on these long, drawn-out paths...where we waste a lot of time, money and energy.”

Novamera is also trying to lower business risks by building a market for its products. The startup wants to entice mining companies to trial its solution, with the hopes that leads to an eventual purchase. Additionally, Angelo said that Novamera sought out investors such as Chrysalix Venture Capital who can envision the ecological and financial benefits that can be gained by new mining technologies.

His philosophy of risk-reduction is one that he expects will become more popular. It is also an approach that could drive traditional mining companies to seek out Novamera – as well as other mining technology startups – as many are developing products and services with environmental, social and governance concerns in mind.

“Because of the ESG [environmental, social and governance] issues that are becoming more paramount in the mining industry, we need to look at solutions that have less of an environmental impact, have better outcomes for communities and this is a technology that checks not only the economic boxes but boxes for environmental concerns and social concerns,” said Angelo. “We’d like to be one of those companies that’s at the forefront of helping to change the mining industry for the better.” **CIM**