

# Interest grows in premium potash project

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Colluli's 200-year mine life offers huge product versatility

**N**OT ALL POTASH PROJECTS are created equal, and with the giant Colluli deposit, Danakali (ASX: DNK) believes it has hit the jackpot. Ngairie McDiarmid reports

Thanks to the scale and diversity contained in the massive Colluli multi agri-commodity resource in Eritrea, Danakali managing director and CEO Paul Donaldson doesn't hesitate to call it a company-making Tier 1 asset.

Colluli's JORC 2012 1.1 billion tonne ore reserve contains a unique suite of potassium salts that are in solid form and can be mined over 200 years starting with a shallow open pit, with payback of the US\$300 million Phase I expected within four years.

Danakali is developing Colluli in a 50:50 joint venture with the East African government's Eritrean National Mining Corporation (ENAMCO), which is involved in other partnerships in the pro-mining country.

Donaldson says Colluli is the most attractive, advanced greenfields potassium sulphate (SOP) project in the industry and no other company can replicate the possibilities offered by the unique resource.

Investors have demonstrated their support to develop the project through a recent A\$5.5 million capital raising. The debt-free company applied for a mining licence at the start of May and is now firming up discussions on off-take agreements and securing finance as it aims for production in 2019.

The price of the more common



potash – potassium chloride or muriate of potash (MOP) – has slumped in recent years but Donaldson said the premium SOP price had held steady and was expected to rise, due to the increasing demand for food from a growing population and the lack of new supplies outside China.

"We're very confident of the market fundamentals for potassium sulphate," he said.

"The other aspect that makes our project fundamentally different to every project outside of China is that it has a similar cost structure to production of potassium chloride, and that never usually occurs.

"So what that means is we'll be making a premium product with the same cost structure as the more common fertiliser product."

Colluli can also produce MOP but Danakali has focused the start of its staged development plans on its premium SOP product.

The resource also has the potential to produce another high-quality fertiliser product, potassium magnesium sulphate, and Danakali is now investigating other product options including gypsum, a soil conditioner.

"We've got quite a lot of gypsum and having that with the other potash types allows us to blend full multi-nutrient fertilisers, either containing chloride or chloride-free, so we have huge versatility," Donaldson explains.

He sees this versatility as a huge benefit, predicting plants that are moderately chloride-tolerant will no longer be chloride-tolerant in decades to come, increasing demand for chloride-free fertilisers.

"At risk of going into technical detail, to meet the food challenge of the future when by 2050 there's a 30% increase in the population to 10 billion people on the planet, we'll need a 70% increase in agricultural yield and most of that will occur due to increased fertiliser application because the amount of arable land is decreasing," he said.

"We see not just increased consumption of our product because of population growth but also switching to our product. Agricultural yield increases will mostly be achieved by additional rates of fertiliser application, but the additional chloride that comes with increased application of the more common potash type, potassium chloride, will not be tolerated by many crops – there will need to be a shift to more chloride-free potash consumption."

The Colluli deposit keeps on giving – its shallow SOP resource lies 16m from the surface, below a 350 million tonne rock salt resource, meaning the initial waste can also generate cashflow.

"It's a standout project and it meets all the criteria of a Tier 1 asset," Donaldson says.

"That's not an ambit claim – the accuracy of our numbers gives us the confidence that we have a



The proposed processing plant at Colluli

long life, scalable resource, it's at the bottom of the cost curve with low capital intensity – plus with its proximity to the coast and global markets, it meets all the criteria of a superior project.

"We've been very focused on Phase I, starting the SOP project, but beyond that we have decades of low-cost growth ahead and an expansion into a multi agri-commodity business.

"With the depth of our resource, there is no reason that in the fullness of time this won't be one of – if not the – biggest potash mine in the world; and it can grow with low risk, which is very unusual for a potash project because typically they are so deep."

Donaldson said many potash projects started as a potassium-rich brine that needed expensive evaporation ponds and created a lag between capital expenditure and revenue.

"Our potassium content is 25 times higher than a typical potassium-rich brine and we are the only resource that can open-cut mine," he said.

"For us, the processing is simple, we're not at the mercy of the weather and we have a whole range of benefits including a predictable feed grade."

He said Eritrea was proving a positive country to develop a mining project in and he said having ENAMCO as a partner was a key enabler.

ENAMCO holds a stake in other mining projects including Eritrea's first modern mine, the high-grade Bisha copper, gold, silver and zinc mine which started production in 2011 in partnership with Canada's Nevsun Resources.

"We find it a safe country to work in, it's had 25 years of independence and stable government and it's improving its infrastructure, health and education," Donaldson said.

Interest in Colluli's premium potash is mounting and Danakali has signed non-binding Memorandums

of Understanding (MoUs) with eight multinational parties for SOP offtake.

The combined volumes covered by the MoUs exceed 800,000 tonnes per annum, which is almost double Colluli's planned production capacity of 425,000tpa in Phase I.

"The interest has exceeded our expectations," Donaldson said.

He said the discussions were helped by the fact Danakali was able to provide high-grade SOP samples generated from the Colluli salts, thanks to pilot tests run during the definitive feasibility study.

"People were able to see our product from Colluli and that gave them a real stamp of confidence in our process, the SOP quality and its specifications," he said.

"We're now looking to progress to securing binding off-take agreements to cover about 80% of our production capacity, to leave us some optionality."

Donaldson said the next three milestones to achieve were the mining approval, getting off-take agreements in place and securing the funding.

"We're working with Endeavour Financial on the funding and they are very experienced in putting together deals in jurisdictions including Eritrea," he said.

"We've got all the right groups working with us and 2016 is all about pulling these three things together, so as soon as we've got the finance we can start construction and we'll have the off-take agreements in place to give the financiers confidence."

Aside from these aims, Donaldson expects more news flow in the coming months as the development potential of Colluli continues to grow.

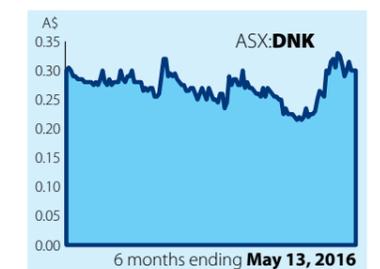
"Now our DFS has demonstrated the scale and economics for our SOP project, we'd like people to get excited about the multi-commodity potential beyond SOP at Colluli," he said. ■



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– PAUL DONALDSON  
MANAGING DIRECTOR & CEO

## DANAKALI AT A GLANCE



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### QUOTED SHARES ON ISSUE

199 million

### MARKET CAPITALISATION

A\$59.7 million

### MAJOR SHAREHOLDERS

Well Efficient Ltd 15.1%,  
Kam Lung Investment Development Company Ltd 5.0%,  
Montezuma Mining Company Ltd 3.8%,  
Management: 11.6%

Below: High grade SOP samples from Colluli. Below right: Colluli's unique resource will produce a premium potash product

