

Asian buyers circle as R&D effort lifts to maximise global market for high-grade kaolin

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Written by ASIA Miner News

Asian ceramics demand and increasing premium prices for one of the key kaolin minerals will prove to be among the main future drivers for the development of a high-grade kaolin project on the west coast of South Australia's Eyre Peninsula.

The Poochera Kaolin-Halloysite deposit near Streaky Bay is a joint venture between Minotaur Exploration and Andromeda Metals.

Minotaur Exploration Executive Director, Dr Tony Belperio, said other key factors included the potential of the project to produce high purity alumina, and the halloysite component to act as a speciality strengthening additive and as a natural nanotube – competing against the more conventional carbon based nanotube R&D projects and uses worldwide.

Andromeda has committed to spend AU\$6 million over the next five years to earn a 75 per cent stake in Poochera – which already has a measured resource of very high quality and bright kaolin.

The commodity is widely used in ceramics and new battery technologies – with Minotaur committed to assisting Andromeda over the coming months in helping get a feasibility study up and running into Poochera's potential.

“Recent marketing by Andromeda has confirmed increasing demand in China for Poochera's halloysite kaolin,” Dr Belperio said.

“In addition, a high halloysite product is currently commanding a significant price premium over conventional kaolin.

“Selective mining at Poochera offers the opportunity to service different market segments including those for a high halloysite product (50 per cent halloysite and 50 per cent kaolinite).

“This demand is coming from the premium porcelain, ceramic, catalytic converter and strengthening filler applications in the polymer, board, mortar and cement market segments.” On the project's high purity alumina potential, Dr Belperio said smelter grade alumina was currently fetching around \$400 per tonne with high purity alumina (HPA) pushing that to \$6,000/tonne.

Super high purity HPA is attracting an even much higher response, ranging between \$23,000 and \$50,000 per tonne.

“The new era battery market is fuelling this HPA demand,” Dr Belperio said. He also pointed to emerging market demand for halloysite nanotubes as a replacement for carbon nanotubes in a range of current commercial and future energy related applications.

Considerable research work into those opportunities is being undertaken through AusIndustry, UniSA’s Future Industries Institute and the University of Newcastle’s Global Innovative Centre.

“Among their areas of R&D interest is the use of Poochera halloysite in nanoporous materials, absorbents, electrocatalysts, energy storage, clean fuel generation and water treatment,” Dr Belperio said.