

# Dubbo Zirconia Project (DZP) Community Newsletter

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## MOU signed with Siemens

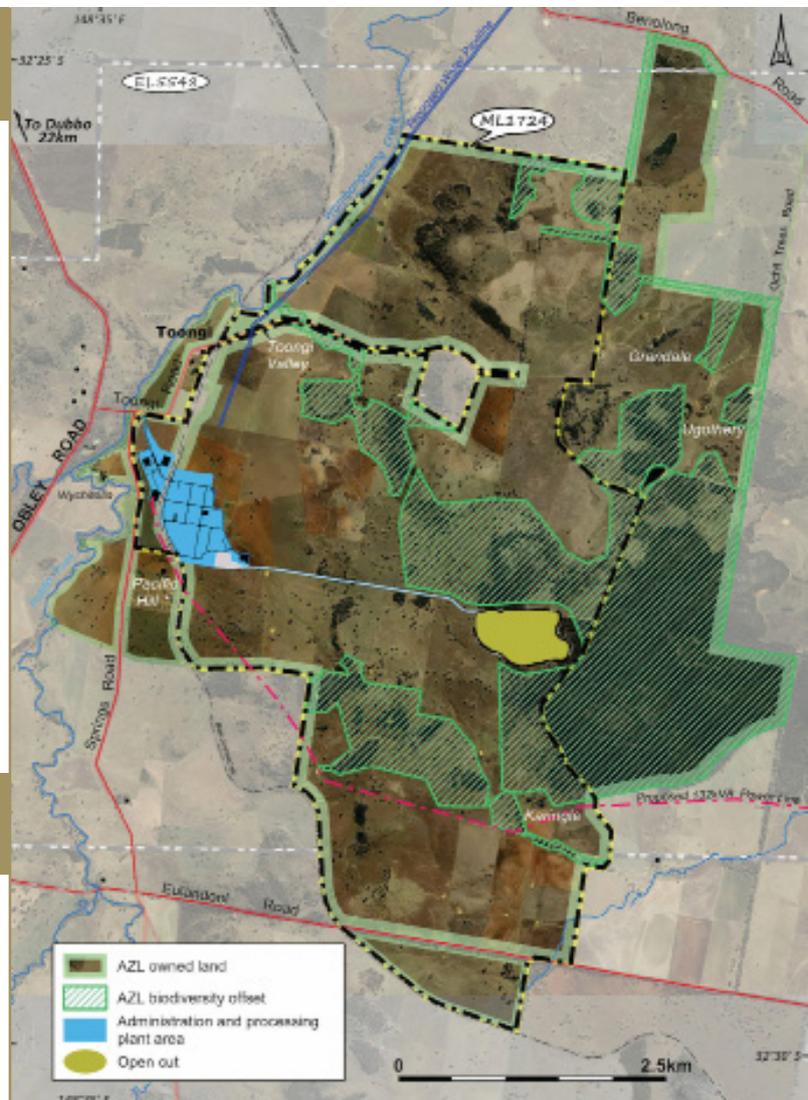
In October 2016, Alkane signed a Memorandum of Understanding (MOU) with global industrial group Siemens regarding the procurement of Siemens equipment and operational solutions, and future off-take of DZP products. The MOU paves the way for Siemens to use DZP products (in particular rare earths for NdFeB permanent magnets, as well as the rare metals niobium, zirconium, and hafnium) in a range of high tech and green energy solutions – such as wind turbines.

Siemens is a leading global supplier of resource-saving technologies for power generation and transmission as well as medical diagnosis. In turn, Alkane will explore options to procure Siemens equipment and systems for the DZP processing plant.

## Development update

### What's happening now?

With all major approvals and licences now secured to enable construction of the Dubbo Zirconia Project (DZP), Alkane's focus continues to be securing the financing arrangements that will allow final plant design and thereby construction to proceed.



Map of AZL-owned land, comprising farmland, Biodiversity Offset Areas, planned open cut and administration/processing plant areas.

### Toongi Pastoral Company

Following the establishment of the Toongi Pastoral Company (TPC) to manage the DZP land and property assets, the team of Fergus Job (Farm Manager) and Phil Hudson (Stationhand) has been focusing on farm planning. This largely consists of learning about, consolidating and maintaining inherited systems and assets across six and half properties, totalling 1,995Ha of agricultural lands.



Harper cattle on Pacific Hill

One of the first projects is rationalising and upgrading the watering systems across the enterprise. Nine separate systems across 99 paddocks are being reviewed and water is being sampled in all the bores. The aim is to create an integrated piping system that will efficiently move water in high volumes to different parts of the consolidated property as required. Another project coming up will be repairing damaged flood gates crossing Wambangalang and Paddy's Creeks – casualties of the recent wet winter.



Phil Thompson from Mob Solutions with the still for making oil from white cypress pine at Ugothery.

The first livestock have moved onto the TPC property, comprising 170 agisted cows and calves, plus 100 agisted trade steers. The cattle are being rotated every few days as part of a long-term land management plan. These are the first steps towards a profitable mixed agricultural enterprise that demonstrates leading practice sustainable farming technologies – including genetics, soil and pasture management and engineering solutions.

### Joint venture project producing native oils

Toongi Pastoral Company is supporting a joint venture project between Native Oils Australia and Mob Solutions exploring the prospect of distilling natural oils from white cypress pine trees growing on the TPC property. White cypress pine in some situations is considered an Invasive Native Species (INS). A valuable oil (with pharmaceutical properties) can be distilled from both the timber and the leaves. The project will see very dense stands of white cypress pine thinned, which will allow for more grass to grow and the remaining trees to grow into larger trees as a result of reduced competition.

### Zirconium Sales and Marketing agreement

In August 2016, Australian Zirconia Limited (AZL) signed an exclusive worldwide marketing, sales and distribution agreement with UK-based Minchem Ltd for all zirconium materials produced by the DZP. Minchem is a technical ceramics marketing and manufacturing business that has been involved in zirconium chemicals and zirconium dioxide products for over 40 years.

The initial term of the agreement is for five years from commencement of DZP production, with an option to extend for a further five years by mutual agreement. It provides AZL with an experienced partner to market DZP zirconium products directly to key end users in all major markets, and will also assist in the creation of higher value zirconium products.

### Community Update

In the last quarter, a number of educational groups visited the DZP site, including scholarship students from Australian Institute of Mining and Metallurgy (AusIMM), and students from both Wollongong and Newcastle Universities.



University of Newcastle third year science students



AusIMM scholarship students



University of Wollongong third-year geology students