



Resourcing tomorrow's technology



Dubbo Project (DP) Community Newsletter

ISSUE 21 / JULY 2018

Dubbo Project status

On 4 June 2018, Alkane released the Dubbo Project Engineering & Financials Update to the Australian Stock Exchange (ASX). The 67-page report consolidates a large body of the technical work executed by Australian Strategic Materials (ASM) and the Dubbo Project team since the Front End Engineering Design (FEED) study in 2015.

The announcement provides more detail on the proposed product suite for the Project, the markets they may supply and the financial outcomes that may eventuate from any successful development of the Project.

In summary, Alkane believes there is a price environment for Dubbo Project products that will see the project funded and developed.

[Download: Dubbo Project Status ASX release 4 June 2018](#)

The infographic on the last page summarises the highlights of the Dubbo Project Engineering & Financials Update.

Toongi Pastoral Company farming update

Low rainfall continues to provide challenging conditions for farming at Toongi Pastoral Company (TPC). Just 73.4mm of rain has fallen at Toongi in the first six months of 2018 – 20% of long-term average. This is possibly the driest six months since records have been kept.

It is likely TPC will need to start supplementary feeding pregnant cows and heifers as they approach calving. While TPC has not yet started hand-feeding, the property has de-stocked all sheep, with only pregnant cows and heifers and the bulls remaining. Supplementary lick has been supplied to cattle as they have rotated around the 99 paddocks. The winter cropping program for 2018 has been abandoned and a strategy set for spring forage crops (assuming it does eventually rain).



Pregnancy-testing cows and heifers in the Grandale yards

The TPC farm water supply project completed in March has markedly improved water management. Darling Irrigation designed the system of pipes and troughs that allows the water from three existing

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bore (on Ugothery, Toongi Valley and Pacific Hill) to be distributed strategically to whichever of TPC's 99 paddocks contain livestock. This is much better than relying on farm dams (many of which have dried up over the prolonged dry) and has allowed better utilisation of pasture across the property. The livestock enjoy drinking the clean bore water too!



One of TPC's new stock water tanks on Pacific Hill

Biodiversity offset area fencing

The Dubbo Project biodiversity offset areas comprise 1021 hectares of land earmarked for the restoration and creation of new native habitats for animal species, especially those that are threatened and endangered. To complete fencing around this non-agricultural area, nearly 34km of new fencing (Westonfence Fencing System) has been constructed (5km to go). The new 1.2m high fences predominantly comprise seven plain wires, four of which will be electrified, with no barbed wire (to avoid harming animals).

The purpose of these fences is primarily to keep animals out – including kangaroos, wild pigs and livestock. This will allow natural regeneration of native vegetation, especially native grasses, which

provide essential habitats for many native animal species. Although not part of the farm, the Dubbo Project biodiversity offset areas are managed by TPC.

The dry season has also provided opportunity for TPC to restore flood gates on Cockabroo Creek in the biodiversity offset area, as well as Paddy's and Wambangalang Creeks.



Grandale-Benolong road boundary fence strainers being installed by Fergus and Christian using the TPC tractor



Biodiversity offset area fencing at Shaley Mountain, Ugothery

Walking the Dowds Hill biodiversity offset area

Dowds Hill was assigned as part of the Dubbo Project biodiversity offset area owing to its large tract of remnant bushland and non-agricultural status. It features an unmineralised trachyte otherwise similar to the mineralised trachyte hosting the Dubbo Project orebody, with thick stands of native White Cypress Pine trees.

Mike Sutherland, Alkane General Manager NSW, walked through the Dowds Hill area on 15 June, accompanied by Phil Thompson from Native Secrets. The purpose of this visit was to assess the impact of drought conditions on wildlife and vegetation, from the foot slopes to the crest of the hill.



Phil Thompson checks out Dowds Hill biodiversity offset area



Trig station on Dowds Hill

Despite the mostly dry conditions, rainwater can persist in pools on top of Dowds Hill trachyte, where there is a healthy vegetation community dominated by Spur-winged Wattle (*Acacia triptera*). Elsewhere, the White Cypress Pine stands are thick, having sucked up all the water at the expense of native grasses. Some pine stands will be thinned and processed into native oils. This will allow the return of essential native grasses to provide vital habitat to the Pink-tailed Worm-lizard.

There is abundant evidence of wild pigs and high numbers of Eastern Grey Kangaroos – the new fences should now keep most of them out, so regeneration of the lightly timbered area can begin.

Community fundraising

Wychitella shearing day: TPC hosted a shearing training day at the Wychitella shearing shed and donated proceeds to the family of a sick child in the local area.

Clontarf Academy raffle prize: TPC has donated a 75cc motorbike, won through an Ag-n-Vet Dubbo in-store promotion, to Dubbo Clontarf Academy as a raffle prize. Alkane has supported the Dubbo Clontarf Academy, which seeks to improve the education, discipline, life skills, self-esteem and employment prospects of young Aboriginal and Torres Strait Islander men (years 7 to 10), since its establishment in Dubbo in 2014. The boys are raising funds toward a trailer to carry their gear for field trips. To buy a raffle ticket, contact Ryan Wolfe on 0400 555 337.

Community Consultative Committee (CCC)

The Dubbo Project CCC met at Toongi on 2 July to discuss progress of the Dubbo Project.

Independent Chair Michael Silver indicated that as the project gets closer to construction, he would like to see additional community members appointed to the CCC, with a particular focus on those persons likely to be impacted by the upgrade works required on the Obley Road transport corridor.



*Fergus Job handing over the keys to a motorbike to Clontarf Dubbo Academy as a raffle prize 22 June 2018.
(photo credit: Taylor Jurd – Fairfax Media)*

Contacting Us

Subscribe to our Community Newsletters and find out more information about Alkane Resources and the Dubbo Project on our website:

www.alkane.com.au

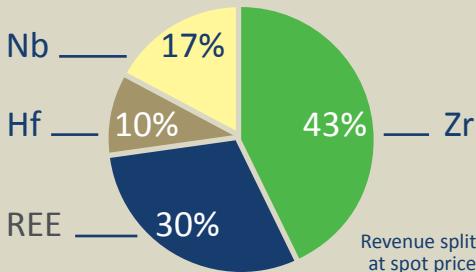
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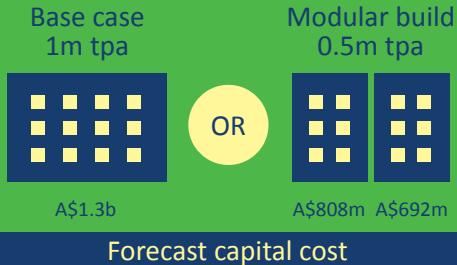
Dubbo Project (DP)

Engineering & Financials Update

Diversified income = lower risk



After extensive engineering



A\$4.7 Billion
free cash flow

At 20yr base case
Estimated NPV A\$1,236m | Estimated IRR 17.5%

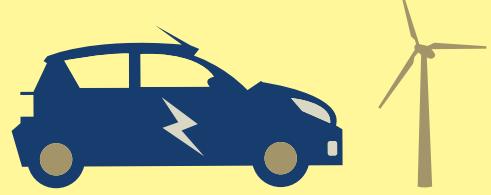
All major ENVIRONMENTAL Approvals in place



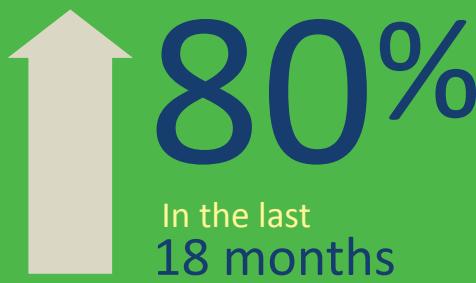
Supply is INDEPENDENT of China



Rare earth magnets
6-10% CAGR



Zirconia products prices



Located near Dubbo
400km from Sydney



- Stable geopolitical area
- Major regional centre
- Excellent infrastructure

Increasing demand - supply gap (rare earths)



Construction would take



18.90 Mt reserve
75.18 Mt resource



Project extensively piloted at ANSTO (10 yrs)

- Demonstrated & optimised processes
- Prepared samples for customers



References

1. Dubbo Project - Engineering & Financials Update (31st May 2018), page 5

2. Dubbo Project - Engineering & Financials Update (31st May 2018), page 6

Link to report: https://alk.irmau.com/site/PDF/1969_0/DUBBOPROJECTENGINEERINGampFINANCIALSUPDATE

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