

# AUSROCKS PTY LTD

CONSULTING MINING ENGINEERS

ABN 64 056 939 014

## AUSROCKS NEWSLETTER No 8 September 2011

### Introduction:

Brisbane continues with the TransApex programme of a major underground road tunnelling system with the commencement of tunnel boring from the Mt-Coot-tha end of the Legacy Way Tunnel in April 2012. While the multi-tunnel TransApex system is seen by some as an extravagant project that the City cannot afford, there are many who believe the tunnel system is an investment in the future.

Remember when the AirTrain rail system was built around 10 years ago ?..... it cost around \$100 million but today's replacement cost would be many times the initial cost. The AirTrain was not that popular ten years ago, but with the development of the Gold Coast Railway and new suburban lines, the AirTrain is now a well utilised and essential transport service. The development of the TransApex tunnels now, is also an investment in the future, as twenty years from now we will still be using cars and buses as a means of transport, albeit more efficient and with a significantly lower carbon footprint.

In twenty years from now tunnels will be prohibitively expensive with (most likely) significant environmental constraints on hours of tunnelling, restrictions on spoil transport, restrictions on noise and dust levels, not to mention the additional building basements that will have to be avoided by urban tunnelling as the population density of the CBD increases.

It appears that there will be a reduction in tunnelling in Brisbane after the completion of the Legacy Way in 2014 as the next tunnel projects (Cross City Rail, Eastern Distributor, Western Distributor and the new Brisbane City Underground Rail Loop) are not in advanced planning stages meaning that there may be a three or four year gap from 2014 on. It is very likely that Brisbane may lose its prestigious title of "tunnel town", gained from Sydney in recent years.

All the best

*From Alan Robertson, Director.*  
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*From mid-September 2011 to mid-October 2011 Alan will be travelling in France, contactable by Email in an emergency. Please contact Carl or Adebayo on their mobiles during Alan's absence for normal matters.*

### Great Innovation – Conveyors in Action

In our last newsletter we talked about the likely trend towards conveyors for materials handling in quarries, construction and open cut mines, the decision to go to conveying being based on reduced energy consumption and the flexibility of "in pit" mobile crushing, screening and conveying systems. According to Graeme Cooney of Mobile Conveying Services, mobile conveying systems have the following uses in quarries and construction projects:

- Building stockpiles (*as an alternative to, or to complement wheel loaders*)
- Complementing mobile crusher/screen circuits in allowing stockpiles to be built at a distance from the circuit.
- Transporting crushed material out of the pit so that road trucks do not have to enter the pit
- Loading from stockpiles using dozer traps or temporary or permanent tunnel reclaimers.
- Blending virgin and recycled materials.
- Safely backfilling worked out pits.
- Complementing mobile crushers and screens in contract crushing fleets.
- Transporting crushed and screened product from temporary project quarries to areas where the material will be used on site.



Example of road truck mounted mobile conveyor

Mobile Conveying Services markets the Superior product range for all applications in tunnelling, mining, quarrying and construction. For more information contact 1300665400 or Email: [enquiries@mobileconveyors.com.au](mailto:enquiries@mobileconveyors.com.au)

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## “Clever Innovation in the Mining and Quarrying Industry”

### The Infrastructure Repair Cost of Floods and Cyclones

At a recent technical meeting of the Institute of Quarrying, a presentation by Shane Dorman of the Queensland Department of Transport and Main Roads (DTMR) indicated their budget cost to repair road and bridge damage from the 2010 and 2011 floods and cyclones over the period June 2011 to June 2014 is \$4.6 billion. This involves the repair of 9170 km of roads, 4750 km of rail lines, 30 bridges and 59 major culverts. This is over and above the construction of planned new roads and bridges.

During this three year period an additional 11 Mt of quarry material is required to complete the maintenance works. Contracts for supply and placement of material and construction works will vary from \$5M to \$100M.

### Two Different Methods for Breaking Rock in Difficult Circumstances

In this newsletter we are looking at two methods of breaking rock in circumstances where conventional blasting is not allowed. The first is the Swedish Brokk remote controlled rockbreaker which can significantly outperform rockbreakers mounted on traditional excavators of larger size.



Photo from Brokk Website

A number of advantages of the Brokk units can be immediately noticed:

- Great stability.
- Excellent reach.
- Good rockbreaking performance

For more information go to: [www.brokk.com](http://www.brokk.com)

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Ken West of Perfect Shafts is the Australian, PNG and New Zealand agent for Greenbreak Technology (GBT). GBT is based on a no-detonating compound, enclosed in a cartridge which reacts quickly when activated to produce a high volume of harmless gas, primarily consisting of nitrogen, carbon dioxide and water vapour. The convenience of its operation and low operating costs makes GBT a great alternative for civil rockbreaking and demolition. The system consists of the green Safety Power Cartridge™ and the orange Auxiliary Cartridge which can provide additional rock breaking capacity.



Photo of Greenbreak Cartridges

For more information, go to [www.perfectshafts.com.au](http://www.perfectshafts.com.au) and [www.greenbreaktechnology.com](http://www.greenbreaktechnology.com) or 61 7 3121 3028

### SIGNS WE HAVE NOTICED



We actually got this one off the web.

### CHECK OUT OUR WEBSITE

Our updated website shows links to our Associates with whom we work in the mining, tunnelling and quarrying industry. To view our Associates, go to: [www.Ausrocks.com.au](http://www.Ausrocks.com.au) and click on the Associates page.

Our most recent Associate is Tony Harrip of THC Services. THC Services provides assistance to Ausrocks, particularly in sand mining projects, in the areas of Quality Control, Testing Regimes, Processing, Monitoring and Management Systems. Tony Harrip of THC Services has over 24 years experience in the Mining Industry, particularly in sand mining and quarrying.