

“Building the plant here in WA will create construction and production jobs; it adds value to the minerals before they are exported; it encourages innovation and the production process is safe and environmentally sound.

“There was also a desire to diversify supply options for our customers; Kwinana ticks all of the boxes in terms of availability of gas, electricity, water, reagents, etc and an experienced workforce close at hand.”

At the end of 2016 earthworks began on site after a five year development phase.

“It is very exciting to get the green light and commence construction of this most important project,” he said.

“Roads, fences, drainage, etc have all commenced and will be finished around February when the concrete works will commence.”

West Perth-based MSP Engineering was awarded head contractor for the project and would subcontract work to local businesses.

“There are a number of large pieces of major plant and equipment that we have ordered but take 12 months to manufacture and deliver,” he said.

“These are mostly coming from overseas as there are no Australian suppliers who can design and fabricate this proprietary equipment that is key to the plant processes.

“As a result of this, the major construction activity will commence in the second half of 2017 and carry through to late 2018.”

Greenbushes expansion

Located 250km south of Perth and about 90km south east of the Port of Bunbury, Talison’s Greenbushes mine produces more than 30 per cent of the world’s lithium.

The mine has produced lithium for more than 25 years and tantalum since the 1940s.

In this time the mine and its processing plants have been expanded on a number of occasions to further lithium concentrate production.

The most recent expansion was completed in mid 2012, and talks of a further expansion were now in the works to keep up with the demand for lithium once the Kwinana plant was online.

“Concurrent with the board approval for construction of the Kwinana lithium chemical plant, Tianqi Lithium in conjunction with its Talison joint venture partner is planning to expand its production further in Greenbushes to meet the growth plans of both partners,” the company stated in September.

Greenbushes currently produced 65,000

“ATTEMPTS TO DEVELOP PROCESSING DOWNSTREAM OF MINING HAVE BEEN MOSTLY UNSUCCESSFUL, SO THIS IS A GREAT OPPORTUNITY TO REVERSE THAT HISTORY.”



Talison Lithium and its predecessor companies have produced lithium from Greenbushes for more than 25 years.

tonnes of lithium carbonate equivalent a year, which was forecast to double under a new expansion.

Mr Thick confirmed the extension project was currently being considered but no decision had been made.

“Greenbushes has the capacity to continue to supply the current needs and future expanded needs of both Tianqi and the other owners, Albemarle,” he said.

Future plans

The Kwinana lithium plant could also undergo a potential expansion once operational, depending on market conditions.

“The land lease we have signed with LandCorp has adequate land for future expansion of the plant and there is further adjacent land available if needed,” Mr Thick said.

“The plant is designed to allow for future

expansion and this will be considered when the current project is running, depending on market conditions at the time.

“No decision has been made on any expansion at this time; we need to focus on building the plant first.”

Kwinana plant would also play host to industry research and development activities as Tianqi planned to further its Research and Development (R&D) activity both in China and WA through partnerships with WA universities.

Lithium outlook

The strong demand growth for lithium was being driven predominantly by the high performance rechargeable lithium battery market, but demand projections for lithium are mixed, Mr Thick said.

“Even on conservative estimates there will continue to be strong demand over coming years,” he said.

“There are many supply projects in the pipeline around the world but many of these are on a much longer timeline and still have significant risk.

“The development of our plant is in the perfect timing window and its proximity to such a large and high quality resource is a huge advantage.”

State development minister Bill Marmion was also of the view, claiming demand was increasing thanks to the growing use for renewable energy storage and electric batteries.

“While Western Australia has been mining and exporting lithium for more than 25 years, this project introduces value-adding secondary processing into the local supply chain,” Mr Marmion said.

“This is very positive news for growing the State’s economy as we seek to take a greater role in processing our raw materials to produce higher value products.”

5yr Greenbushes partnership delivers value

A long-standing partnership between drill and blast specialist Action Drill & Blast (ADB) and miner Talison Lithium Australia Pty Ltd at the Greenbushes lithium mine in WA’s southwest demonstrates the value of a close working relationship between miner and contractor.

ADB was awarded the contract for production blast hole drilling and LSI (load, stem, initiate) services at Greenbushes in 2011. Following a 12 month extension in 2013, the company was awarded another three year contract in 2014.

Talison leverages ADB’s integrated drill and blast capability, its focus on best-for-project solutions, and its industry-leading safety system to optimise the project’s blast design, commission customised drilling solutions, and ensure best practice safety standards.

Traditionally, drilling production techniques at the mine had used GD5000 top hole hammer drills to drill 115mm to 127mm blast holes on 5m to 10m benches.

However, Talison had a requirement for deeper and more accurate 30m pre-splits to provide a continuous split line between



Action Drill & Blast’s customised production technique has seen production targets consistently met, waste blasting costs reduced, and an exceptional safety record maintained.

each berm, which the GD5000s struggled to perform at the accuracy required.

The client also wanted larger hole sizes

in the bulk waste zones to reduce drill and blast costs, and was considering the use of reverse circulation (RC) drilling to

improve the site’s grade control process.

ADB developed and implemented a customised production technique to meet the client’s objectives by acquiring an Atlas Copco D65 drill; set up with RC but also capable of being easily changed over to drill conventional blast holes.

The drill comfortably drills up to 165mm diameter holes and its down hole hammer provides accurate pre-split holes to the required depth of 30m.

With the RC set up, the D65 is also able to fulfill the grade control requirements. The rig can perform all the functions required with no extra cost to the client for an additional machine.

ADB has also been initiating safety best practice at Greenbushes through the deployment of its industry-leading safety system ActionSAFE and implementing its OHSAS18001, ISO9001 and AS/NZS4801 certification.

The value of this professional, integrated drill and blast contract service has seen production targets consistently met, waste blasting costs reduced, and an exceptional safety record to date with no lost time to injury since ADB commenced on site.