



## Australian Construction Supplier Reaps Cost Reductions Through Waste Fines Recovery and Water Treatment

***Undoubtedly Australia's largest building and construction materials supplier, Boral Limited has over the years secured its market leading position with the development of three main divisions, namely construction materials, cement and a diverse range of building products.***

Alongside significant operations in USA and Asia, Boral has successfully established The Boral Construction Materials division in their domestic market with around 400 operating sites; ensuring that the construction materials division has a regional focus to serve the company's local markets.

With the recent growth in the contracting sector, water and materials recycling has become an increasingly important consideration for the company, in order to allow them to efficiently meet demand for quality aggregates whilst continuing to improve environmental management for the protection of areas in which they operate.

Situated in Moora, north of Perth, Boral Ltd are currently on contract with a quarry operation owned by Simcoa Operations, a company committed to producing the world's highest quality silicon from a site that has been in operation for over 20 years.

At the outset, Boral's ultimate aim was to produce a high quality quartzite ore for use by Simcoa in their silicon production process. This ore is typically 75-25mm in size, with all 0-7mm previously being sent to the waste lagoons. Boral essentially wanted to implement a process whereby water could be recycled and recovered from within an extremely dry

climate where water supply is limited. Paul O' Brien, Boral's Fixed Plant Engineering Manager began consultation process with CDE Global. After this initial consultation, CDE offered a design and proposal that demonstrated efficiencies in operations and huge savings in material recovery. CDE ultimately designed, manufactured and installed a system that eliminated the loss of quality fines (0-5mm) to nearby settling ponds whilst controlling water levels for reprocessing.

As a result of their operating needs, Boral invested in a CDE EvoWash 101 Fines Recovery Sand plant complete with an M1508 Radial Stockpile conveyor and a LQPP 25 flocculant make up and dosing system.

With the chosen equipment, the end result is a high quality, fine sand recovery with an efficient cut at 63um. Before the introduction of the new CDE fines recovery plant, the operation was losing a significant proportion of quality fines to the waste ponds.

The main ore product is 75-25mm and is smelted by Simcoa Operations for a variety of purposes including silicon chips, improving the strength of aluminium, optical glass, and use in solar energy, namely for the production of solar panels.

Boral's quarry manager at Moora, Jeff Post, highlights, "The washing equipment from CDE Global has allowed operations to accurately separate at 63 micron which has in turn, produced a high quality sand product with low moisture levels, whilst rapidly re-circulating water following treatment processing. We are now recovering and producing 25-30tph of quality sand with the total feed rate to the plant being 225tph. This technology has allowed us to increase efficiency by reducing the costs incurred through pond dredging to recover sand we had lost using the previous system".

The improved opportunities for the recycling of process water and reduction of fines to settling ponds have facilitated a move to production throughout the year, where previously the site was operating only over an 8 month period.

The by-products of the production process are currently sold off to third parties in the region for various uses including further processing and general aggregate use, thus ensuring that there is zero waste from the process.

CDE Global Sales Director, Enda Ivanoff comments "We are delighted to be working with Boral in Australia and hope that the efficiencies realised at Moora allow us to build our relationship over the coming months and years".

Further information on the sand washing systems available from CDE can be found on their website at [www.cdeglobal.com](http://www.cdeglobal.com) or by contacting the company at the address below.



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