

CASE  
STUDY

# REDI-LINER CERAMIC MODULAR LINING SYSTEM

<b>PRODUCT:</b>	Redi-Liner Ceramic Modular Lining System
<b>PRODUCT CATEGORY:</b>	Flow & Anti-Wear
<b>LOCATION:</b>	New Zealand
<b>CONVEYED MATERIAL:</b>	Alluvial Gravel 100 lb/ft <sup>3</sup> (1600 kg/m <sup>3</sup> )
<b>CONVEYOR BELT WIDTH/SPEED:</b>	24" (600mm) Belt Width / 295 feet/min. (1.5m/s)
<b>INSTALLATION DATE:</b>	May 2018

**PROBLEM DESCRIPTION:**

This quarry customer produces and supplies high quality, sustainable concrete, aggregate and quarry solutions across New Zealand and Australia. Their new mobile plant stationed at New Zealand's South Island was built to an original equipment manufacturers specification.

Being a mobile plant means their operation can easily load the plant onto a truck to maximize the productivity of its screening and crushing operation at various locations within a geographical area. Within the mobile plant's high volume transfer zones, the 4mm thick steel plates were left unprotected as new equipment. Over time, grueling screening and crushing production and exposure to the sheer abrasive properties of the transferred quartz-based gravel was the leading contributor to the catch pen wall and chute wearing out from the return belt back into the impactor.

**CHALLENGE:**

- Maximize mobile plant crushing and screening productivity
- Unprotected steel plates within high impact zones
- Increasing costs and production down-time to replace wear plates every three months



**SOLUTION:**

The high frequency, escalating costs and production down-time of replacing existing steel wear plates every three months led maintenance teams to seek other, more effective wear protection solutions to ensure the screening and crushing business operates at maximum productivity, profitability and longevity.

It was recommended that the Redi-Liner ceramic panels be installed within the impact zones of the high wear-prone chute and wall. Clear and effective installation instructions provided to maintenance fitters meant the installation was quick, secure and seamless via the liners' bolt-in system functionality.

Through the impressive Redi-Liner Ceramic installation, the customer reports eliminating the need for patch-up/repair jobs in this high-impact chute area every production shutdown. Wear-prone areas of the operations have been eliminated, with cost savings realized by the quarry operator by not needing to replace the steel plates every three months. Further costs reductions can also be achieved through the replacement of the wear liner where it's most needed instead of replacing the entire liner, and panel rotation flexibility is a key feature of the Redi-Liner available to further extend wear life.

**RESULTS:**

- Wear problems solved
- Product performance well above expectations
- Cost savings realized, with extended wear life of panels



*Redi-Liner Ceramic panels installed*