



Brightwater
ENGINEERING

PROJECT REPORT

Stockton Mine Water Treatment Plant

Solid Energy New Zealand
2008



The Situation

- Solid Energy New Zealand (SENZ) employed Brightwater to design a Water Treatment Plant (WTP) to improve the quality of run off water from their Stockton Mine Site.
- The Mine run off water is particularly acidic and contains a high level of undissolved solids.
- The Mine operates within an environmentally sensitive area, and site discharge water quality must be maintained to satisfy Local Authority discharge consents.

The Solution

- Site run off is collected into large sumps from where it is piped to the WTP.
- The water is initially treated with hydrated lime to neutralise the acidity.
- A polymer is then added to the water to separate out the solids.
- Clean, neutral water is discharged back into the site run off watercourse.
- Waste sludge, which consists of clay silts and coal fines, is 'caked' and returned to the mine as reclaim fill.

Key Features

- Civil, mechanical and electrical design of the complete facility.
- The plant is fully automated, with both local and remote PLC control.
- Project management of specialist suppliers and subcontractors.
- Close client liaison to ensure correct environmental controls.



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