

Reference Project

Energy

Concrete Condition: Inspection & Repairs

Location Manapouri Underground Hydro Power Station

Date 2003 ongoing

Client Meridian Energy

Consultant Les Topping

This underground station has seven 200m vertical penstocks through rock to feed the underground turbines. As part of the 30 year Half-Life Refurbishment Project the penstocks required a concrete condition survey. They are lined with slip formed concrete and steel.

Abseil Access Ltd was contracted to visually map the internal surface of each penstock for the full 200m height. All defect sites were measured and recorded. 100mm core samples were taken up to 300mm deep for further analysis. Marker pins were installed at key positions for future laser measurements.

The inspection project required a multitude of demanding disciplines including operating lasers, dyna and core drills, in the dark, 200m down an underground vertical wet shaft.

