

## Reference Project

## Inspection

**Abseil Access have been providing difficult access penstock inspection services on Manapouri Hydroelectric Power Station almost 20 years.**

**Location** Manapouri Hydroelectricity Station

**Date** Yearly 2003 - Present

**Client** Meridian Energy

**Consultant** Les Topping

Manapouri hydro-electric power station has seven 200m vertical penstocks through rock to feed the underground turbines. Abseil Access have developed a refined and turnkey access solution to inspecting these penstocks. This solution has been utilised by Meridian Energy for almost 20 years. The 7 penstocks received an initial concrete condition which included core samples and detailed mapping. A future programme of inspections was then developed to monitor the ongoing condition.

The work included:

- Access and rescue planning
- General/close visual inspection and condition reporting
- Core sampling
- Concrete condition mapping and erosion monitoring
- Condition Survey reporting

Inspecting underground penstocks requires a substantial amount of planning, experience, and specialization for safe project execution. Electrical core drilling was achieved in a dark, wet environment 200m underground. Abseil Access prides itself in providing the access and inspection solution to the Manapouri hydroelectricity station and being a part of the history of this engineering feat.

