

## Reference Project

## Inspection

**Concrete condition survey on the 146m high concrete stack using rope access systems.**

**Location** Tiwai Point, Invercargill  
**Date** 11/10/19 - 03/11/19  
**Client** NZAS

The 146m main chimney stack is the centerpiece of New Zealand Aluminium Smelter which produces Aluminium at 98.98% pure. The concrete chimney requires regular inspection, and various maintenance tasks which are not practicable by any other means but rope access. Abseil Access have provided inspection and repairs for NZAS since 2002.

**The work included:**

- Concrete structure inspection
- Concrete coverage survey
- Safe removal of spalling material
- Concrete repairs
- Conduit install

By using rope access systems our team was able to set up access to any part of the structure within hours. It also allowed movement onto different portions of the stack as the weather or task changes, with no equipment left exposed. Our lightweight equipment minimises use of heavy lifting equipment, and our structured procedures set out a safe operating methodology. Ladders, landings and galleries are checked as the team progress upward, highlighting any issues in the inspection report and problem solving on the spot. A full inspection of all surfaces was completed in 10 days.

