

Flying Fox Mine - Australia 2006**Waterproofing mine**

The Forrestania Nickel Project is situated 400 km east of Perth. The Streeter decline at Flying Fox had advanced approximately 250m vertical depth when it intersected an aquifer producing between 50 - 70 litres per second (13 US Gallon) water. Although a comprehensive Hydrological test/work program was carried out, these inflows were not expected. It was envisaged that inflows to the underground mine would be managed principally by pumping from within the mine workings.

Conventional cement grouting was carried out for 14 days but the high washout rate of the large aquifer made it impossible to affect a seal. Sovereign was called in and a short fluorescent dye test of 5 hours revealed the true nature of the problem. The ground conditions, veining of the broken rock complex, flow direction and water pressures were quickly analyzed and a grout pattern designed for the specific site.

It took only one single shift for Sovereign to achieve a watertight seal. All pumps were off during quality inspection by the mine management and main contractor. The decline was dry and the development continued the following day.

There were permeable zones throughout the entire depth of the mine and Sovereign returned as the decline developed deeper and additional water sealing was completed on lower levels.

(See reference letter)