

## Cable struck by drill

## Location: Waipori

### What happened?

An electrician was tasked with re-wiring a diesel generator at Waipori. The task involved drilling a hole through a concrete floor of approximately 300mm depth. In order to do this a concrete cutting company was employed.

An x-ray machine was used to scan the location to identify the presence of any imbedded cables. None were identified by the x-ray machine which was in good working order. The team then assessed, the area using their collective expertise to determine there were no likely cables in the location. Wiring Drawings were not available.

After completing the relevant documentation, the team commenced drilling. At about 200mm the driller felt the drill bite. The driller stopped immediately and advised the supervising electrician they believed they had hit a cable. This was confirmed by the electrician. Worked ceased, and the cable was made safe.

### What did we learn?

The team took all available steps to avoid hitting a cable using the latest equipment and their extensive knowledge of the site. Drawings were not available due to the age of the building and embedding cables into concrete walls is common in older structures.

It is unknown why the x-ray did not pick up the cable but suspected either the depth of the cable or embedded metal mesh may have given false readings.

- The team did everything at their disposal to try to locate the cable
- Technology has its limitations
- Use of safety devices, RCD and insulated equipment can provide protection to operators- it must be tested and used
- No matter how much planning is undertaken- expect, plan and prepare for the unexpected
- When using x-ray machines to identify cables- if possible, scan from both sides of a designated drill location
- Use Cable & Services Work practice standard for advice on planning excavations & drilling

### Insert Picture here

