

Shared Learning

Subsidence | 42" Conductor casing falls 3-4m into cavern | Geothermal site

What happened?

42" conductor fell 3-4 meters into a cavern during pre collar drilling operation. The pre collar drilling operation was stopped and all personal cleared from the cellar area while the situation was assessed by engineers. The assessment concluded that drilling rig could be removed from the area safely. Subsequently further operations commenced safely abandoning the well and drilling tools stuck at bottom.

What did we learn?

- Geology assessment of top formations prior to and during pre collar drilling could be given greater attention.
- The 42" conductor was cemented into a wet and sandy formation at 9m.
- The sandy and wet formation around the 42" conductor followed the drill bit into the well as it got deeper.
- As the drill bit hit a loss zone at around 50m the sandy formation under the cellar had entered the loss zone, leaving the 42" conductor unsupported. Subsequently the conductor fell 3-4 m into the cavern formed by disappeared formation under the cellar.

