The formations surrounding the borehole are subjected to an alternating squarewave voltage applied via the upper and lower injection electrodes. Following each injection cycle, the resulting potential difference over a section of the formations is analysed as it decays with time. The form of this decay curve is related to the «chargeability» of the formations.

A high chargeability indicates that induced electrochemical potentials are able to develop within the formations as a result of ion transfer between pore fluids and semiconductive metallic mineral grains present within the rocks.

This method is particularly suitable for mining exploration in the context of a disseminated sulphide mineralization. In the hydrogeological domain, it can also provide qualitative information about the permeability of potential aquifer horizons.

**SPECIFICATIONS:**
- Diameter : 38 mm
- Length : 2790 mm
- Max. Temp / Pressure : 70°C / 200 bar
- Measuring range :
  - SPR 010,000 ohm.m
  - IP ratio A/B (mV/V)

**OPTIONS ACCESSORIES:**
- Gamma ray sensor
- Transport case
Examples

Natural Gamma Ray sensor is also incorporated to the tool and a measure of SPR (Single Point Resistance). This requires a bare waterfilled hole.

An example of diagraphy

The chargeability of the formations is determined by comparing the integrated residual potentials over the time windows A and B with the injection signal energy.