

CASE STORY

Groundwater - Prospecting | RESISTIVITY |

► Successful prospecting of groundwater in Bolivia

Client

COFADENA - Corporation of the Armed Forces for National Development in Bolivia and the UERH unit, The Unit of Exploitation of Water Resources. COFADENA develops and implements projects to improve and expand infrastructure, markets, and technology. They participate in the development of environmental standards of science and of technology, the channeling of financial resources through national and international funds to develop projects commissioned by the State.

CORIMEX - Corimex Ltda is the distributor of ABEM and MALÅ in Bolivia and a preferred ABEM partner since 2011. They offer training for all ABEM products and they are also the first line of support for customers. For the last 50 years Corimex has provided equipment, materials and supplies for engineering projects in Bolivia.

Background

Cofadena, an important client in Bolivia, procured the ABEM Terrameter LS, which met their requirements. To date more than 180 tomographic lines and more than 120 wells have been drilled with abundant water.

The Exploitation Unit of Water Resources UERH, dependent on the Corporation of the Armed Forces for The National Development COFADENA are performing water well drilling throughout Bolivia.

As the UERH gradually got higher requirements for the drilling of wells in combination with the significant expense of constantly hiring external services, the hassle of moving machinery and drilling without the certainty of finding water, were some decisive factors for the acquisition of the ABEM solution.

Solution

The main reason for choosing a geophysical solution and performing the studies prior to the start of drilling work, was the need to determine the existence or nonexistence of groundwater, identify the best site for drilling and the depth of the well, for the corresponding design of the pipes.

“The greatest results have been using the cable set configuration of 4 x 21. With this configuration we determine the best drilling site and in some cases drilling was avoided due to the non-existence of water.”

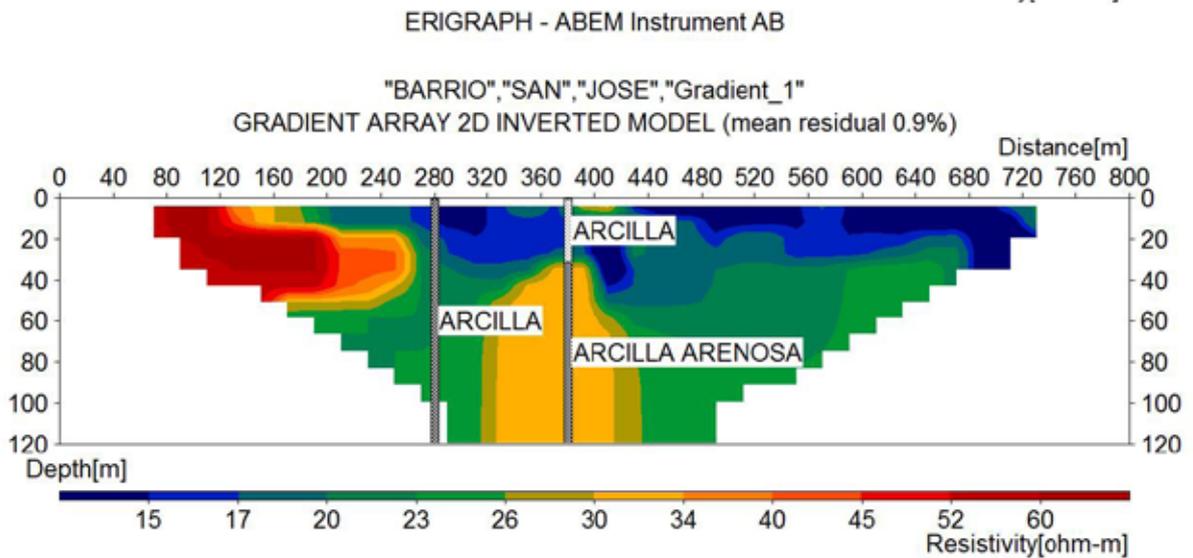
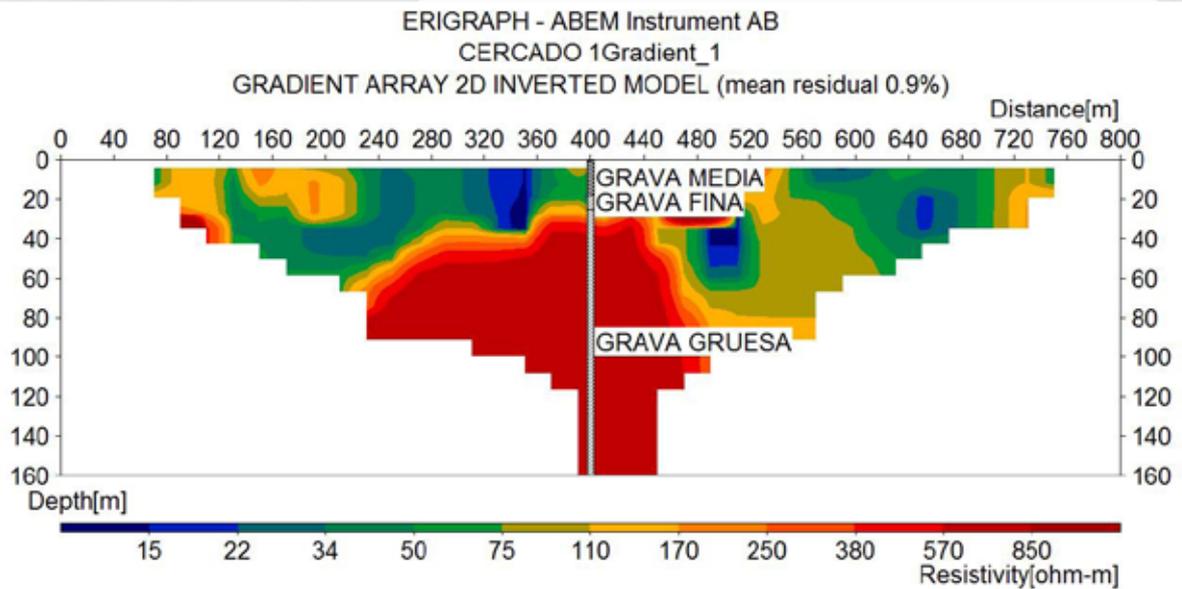
“Once we experienced unexpected data in the field. However this was solved by improving the ground contact in the field and via the software in the office. We continuously optimize the field work with the support of the ABEM | MALÅ distributor in Bolivia, Corimex Ltda.”

“It has been a very positive experience, we are developing local competence capabilities in geophysics within the Armed Forces.”

PROJECT

- ▷ **Method:** Resistivity
- ▷ **Solution:** ABEM Terrameter LS, 12 channels. 4x21 cable set with 20 meter spacing, Arrays used: Gradient, Schlumberger and Pole-Dipole (using 2x21)
- ▷ **Inversion & Visualization software:** Res2Dinv software





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