

# GEO-TECHNICAL SITE INVESTIGATION

## Locating Groundwater Wells in South Sudan

## CASE HISTORY

**Objective:** To find sustainable groundwater resources.

**Survey site:** Yeri Mozo Village in South Sudan

**Instruments Used:** SuperSting™ R8 Wifi, AGI SwitchBox™ 56, 56 electrodes at 5 meter spacing, using a Dipole-Dipole array.

**Software Used:** EarthImager 2D™

### BACKGROUND:

The Radler Foundation, Water Harvest International, and East African Ministries are humanitarian organizations working to bring water wells to villages in rural areas of Africa. In February 2015, they wanted better information about where to drill a well in the Yeri Mozo Village in South Sudan in order to provide access to safe and clean water—and improve the quality of life—for local villagers.



### PROCESS:

Selecting groundwater sites and performing groundwater exploration are far easier tasks with AGI, as water is always a great target due to its conductivity. The foundation used the SuperSting™ R8 Wi-Fi with 56 electrodes and passive cables spaced at five meters as well as the EarthImager™ 2D with a finite element inversion model of Dipole-Dipole electrode array data.



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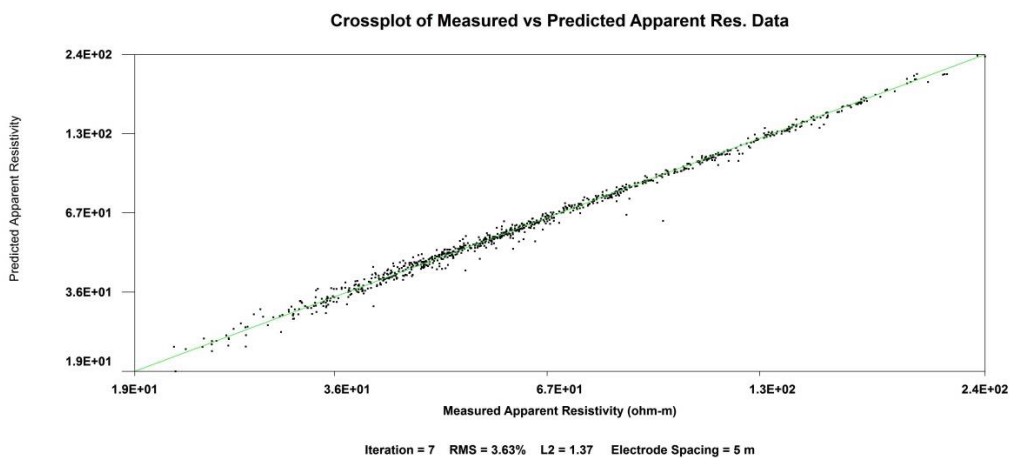
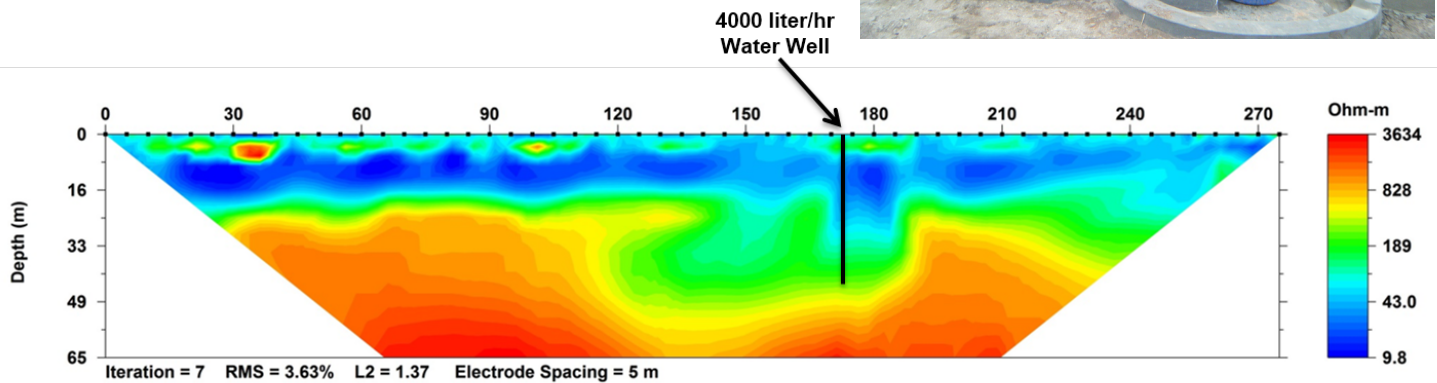
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### RESULTS:

After using AGI software and hardware, the foundation went from a 60% success rate in drilling to an 80% success rate, dropping their chances of drilling a dry well by 20%.

Using AGI's equipment, the foundation was able to see not only that they would be drilling a wet well, but also the specific area to drill that had the greatest water output. In this case, they were able to successfully locate a high production potable water well with a 4,000-liters-per-hour static yield, which is enough for a small village.



### CONTACT US TO LEARN MORE:

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