Temperature-Fluid Resisitivity measurements are used in water quality studies, fracture characterization work, and geothermal gradient mapping. e probe is designed for measurement of electric conductivity of rocks in boreholes. High stability and exceptionally wide dynamic range are giving you a possibility to carry out precise measurements of conductivity of sand-clay layers and also mineralized water-soaked sands. Thanks to the induction method applied the probes can be used in water filled, dry and plastic cased boreholes. The response of the probe is practically instantaneous (<0.5s).

Fluid resistivity logging measures the electrical resistivity of the fluid in the borehole. Changes in the electrical resistivity indicates differences in the concentration of the total dissolved solids in the fliud in the borehole.These differences typically indicate sources of water that have contrasting chemistry and have come from transissive zones. Specific conductance is reciprocal of the fluid resistivity. Fluid resistivity and temperature usually are measured simultaneously with a single borehole tool. These logs are typically run first in order an disturbed water column that represents the ambient and pumping conditions can help identify where water has entered the borehole.

Temperature logging is used to identify where water enters or exits the borehole. In the absence of the fluid flow in the borehole, the temperature gradually increases with geothermal gradient, about 1 F per 100 ft (1 C/30m) of depth. Deviation from the expected geothermal gradient indicate water producing and water receiving zones. Interval of vertical flow are characterized by little or no temperature gradient. The differential or del temperature, which is the first derative of the temperature plot, is calculated and plotted to identify changes in the slope of the temperature profile.