

DILS Conductivity Sonde

The Induction Sonde works by transmitting a high frequency current through a coil and measures the induced electromagnetic field 180 degrees out of phase at the receiver.

This is a compensated conductivity sonde that functions well in open or PVC cased holes. Penetration is ~0.5m into the near hole formation.

The Dual Induction Sonde has two receiver coils instead of one for a single induction. This extra coil allows two points to be plotted instead of one which helps more accurately determine formation features.

The Dual Induction Sonde has two measurement coils which are labelled DEEP and SHALLOW the DEEP channel is the lowest measurement in the borehole.

Units are written mmho which stands for milli-mho's, a measurement of Conductivity. 1 milli-mho is simply 0.001mho and 1mho is 1/ohmmeter therefore 1k ohm-metre (resistance) is equal to 1mmho (conductivity). The conductance may also be quoted in units of Siemens or mS/m (milli Siemens per metre), where 1 Siemen equals 1 mho.

In borehole logging, the usual units are Ohm-metre for resistivity and mmho for conductivity. The relationship is:
 $\text{Resistivity (Ohm-metres)} = 1000 / \text{Conductivity (mmho)}$

Depth Offset	Mnemonic	Unit	Range	Resolution
0.62m	ILD	MMHO	2-2,000 mmho	0.1mmho
0.77m	ILS	MMHO	2-2,000 mmho	0.1mmho

