

## Mag Suss/Conductivity {EM51}

Instrumentation used is produced by Geovista and operates with a digital data output.

The EM51 is a bottom end Sonde however it can be ran in conjunction with up to 4 other modular units. {ie Ngam, verticality, temperature, water level.. etc..}

### Sonde General Specifications:

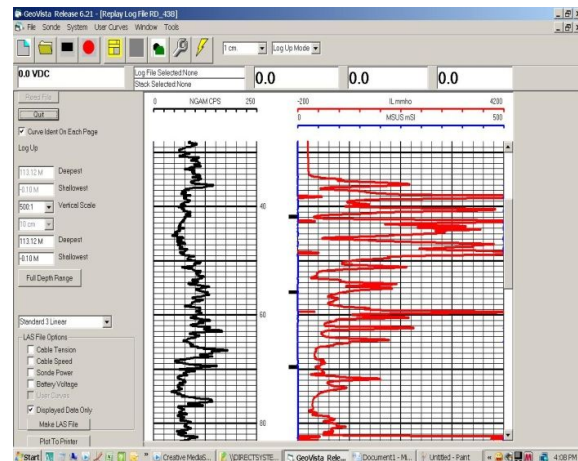
Sonde length 1.90 m  
Sonde diameter 45 mm  
Sonde weight 5.0 Kg

#### Induction

Inter-coil spacing: 50 cm  
Operating frequency: 100 kHz  
Measuring range: 1 to 3000 mS/m ( 0.33 to 1000  $\Omega$ m)  
Accuracy: 3% for range 100 to 1000 mS/m  
10% for range 1000 to 3000 mS/m

#### Mag. Sussc.

Inter-coil spacing: 25 cm  
Operating frequency: 2 kHz  
Measuring range:  $10^{-4}$  to 2 SI unit  
Accuracy: 3%



### Induction & Magnetic Susceptibility Sonde

#### Principle Of Operation

This sonde measures formation electrical conductivity and formation magnetic susceptibility using the electromagnetic induction.

The sonde includes a set of two coils for conductivity measurement and another set of two coils for magnetic susceptibility measurement.

The sonde is most effective in higher conductivity formations and low conductivity borehole fluid, including air. It is also useful in boreholes with plastic casing.

Formation conductivity is typically measured in mS/m (or mmho).

#### Calibration:

A set of two calibration loops are supplied for the Induction. These can be used for sonde calibration and for sonde testing. The equivalent conductivities of the loops are 200 and 500mS/m.

A set of two calibration values are supplied for the Magnetic Susceptibility. The equivalent susceptibilities are  $1.7 \times 10^{-3}$  and  $5 \times 10^{-3}$  SI unit.