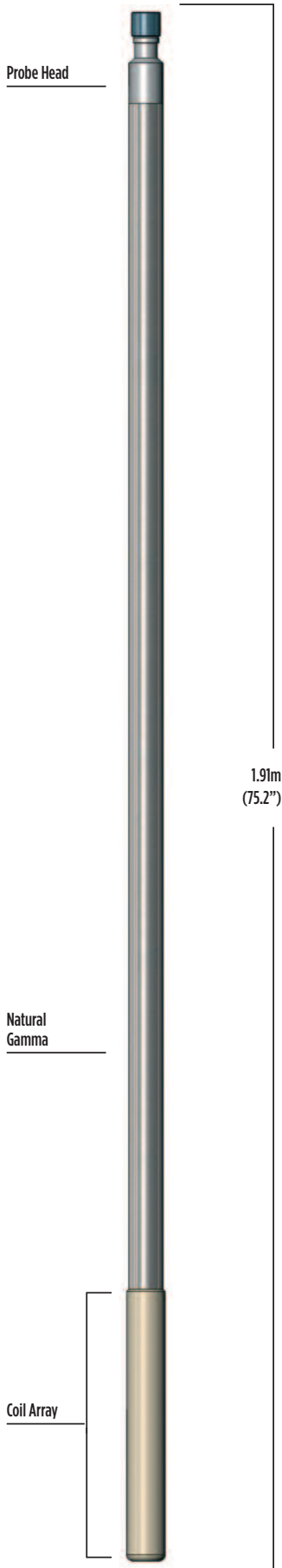


# Magnetic Susceptibility



The Magnetic Susceptibility probe is based on the industry-standard Bartington Instruments™ product.

It is a low-frequency device and is specifically designed for mining applications. The probe has excellent stability against pressure and temperature variations.

**Principle of Measurement:**

An oscillating magnetic field in the probe produces a current within a toroidal zone in the surrounding formation. The oscillating current produces a secondary field that is detected by the receiver coils. The 'in-phase' signal is a measure of susceptibility.

**SPECIFICATION:**

**Features**

- Operates in dry or water-filled boreholes
- Unaffected by plastic casing Ideal for use in small-diameter exploration boreholes
- Excellent thermal/pressure stability across specified operating range

**Measurements**

- Magnetic susceptibility
- Natural Gamma

**Applications**

The probe has particular use for detecting uranium where the log shows a negative correlation with uraniferous compounds. Susceptibility logs are highly sensitive to iron and show large contrasts according to its oxidation state. The frequent occurrence of iron with other redox-sensitive metals can provide a valuable indicator of the presence of other minerals.

**Operating Conditions**

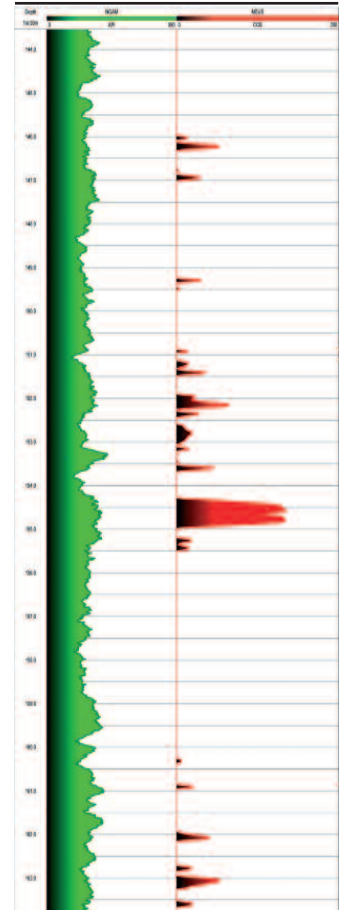
- Borehole type: open/cased (plastic), water/air-filled
- Centralisation: fin stand-off recommended
- Recommended Logging Speed: 3m/min

**Specifications**

- Diameter: 43mm
- Length: 1.91m
- Weight: 5.5kg
- Temperature: 0-70°C (extended ranges available)
- Max. pressure: 20MPa
- Operating frequency: 1.439kHz
- Range: 10<sup>-5</sup> to 10<sup>-1</sup> cgs (Gaussian)

**Part Numbers**

- 1002095 Magnetic Susceptibility probe with natural gamma



Example of logging data

Magnetic Susceptibility Probe