

Natural Gamma Sonde

NGRS

Principle of Operation

This sonde uses a Sodium Iodide scintillation crystal coupled to a photomultiplier to detect natural gamma radiation. The scintillation crystal has external dimensions of 50mm long by 28mm diameter.

The range of energies detected by the sonde is from 65KeV (the lower threshold of the sonde) and up to 2.6MeV, the highest naturally occurring radiation, encompassing a large spectrum.

For U_3O_8 logging the sonde can be calibrated at the certified AMDEL calibration pits to enable accurate % of Uranium to be recorded. Models AM1, 2, 3 & 7 are used for the calibration, at the AMDEL pits Borehole size compensation curves can also be derived.

A radium 226, test source is used to monitor instrument drift/variation when calibrated for Uranium readings.

Natural gamma can be detected through rod strings and the instrumentation can be operated at speeds of up to 15m/min

Natural gamma is generally ran as a standard with other sondes to assist in the alignment of structures and logging runs.

Tool Specifications

Length: 0,7 m
Diameter: 38 mm
Weight: 4 kg

