

# FORMATION Density Sonde

## FDS TECHNICAL SPECIFICATIONS

|                    |   |
|--------------------|---|
| System Requirement | ALT logger                                |
| Diameter           | 50 mm                                     |
| Length             | 3.35 m (with source holder)               |
| Weight             | 30 kg                                     |
| Max. pressure      | 200 bars = 2900psi                        |
| Max. temp.         | 70° C                                     |
| Power supply       | 80-140 V                                  |
| Current            | 45mA                                      |
| Detectors          | NaI(Tl)                                   |
| Source             | Cs <sup>137</sup> 100mCi or 125mCi        |
| Caliper range      | 60 - 300 mm (caliper extensions possible) |
| Arm tension        | 3 -10 kg (depending on caliper)           |
| Logging speeds     | 5m/min @ 1cm sample rate                  |
| Logging Mode       | Side-walled                               |

## LOG PARAMETERS

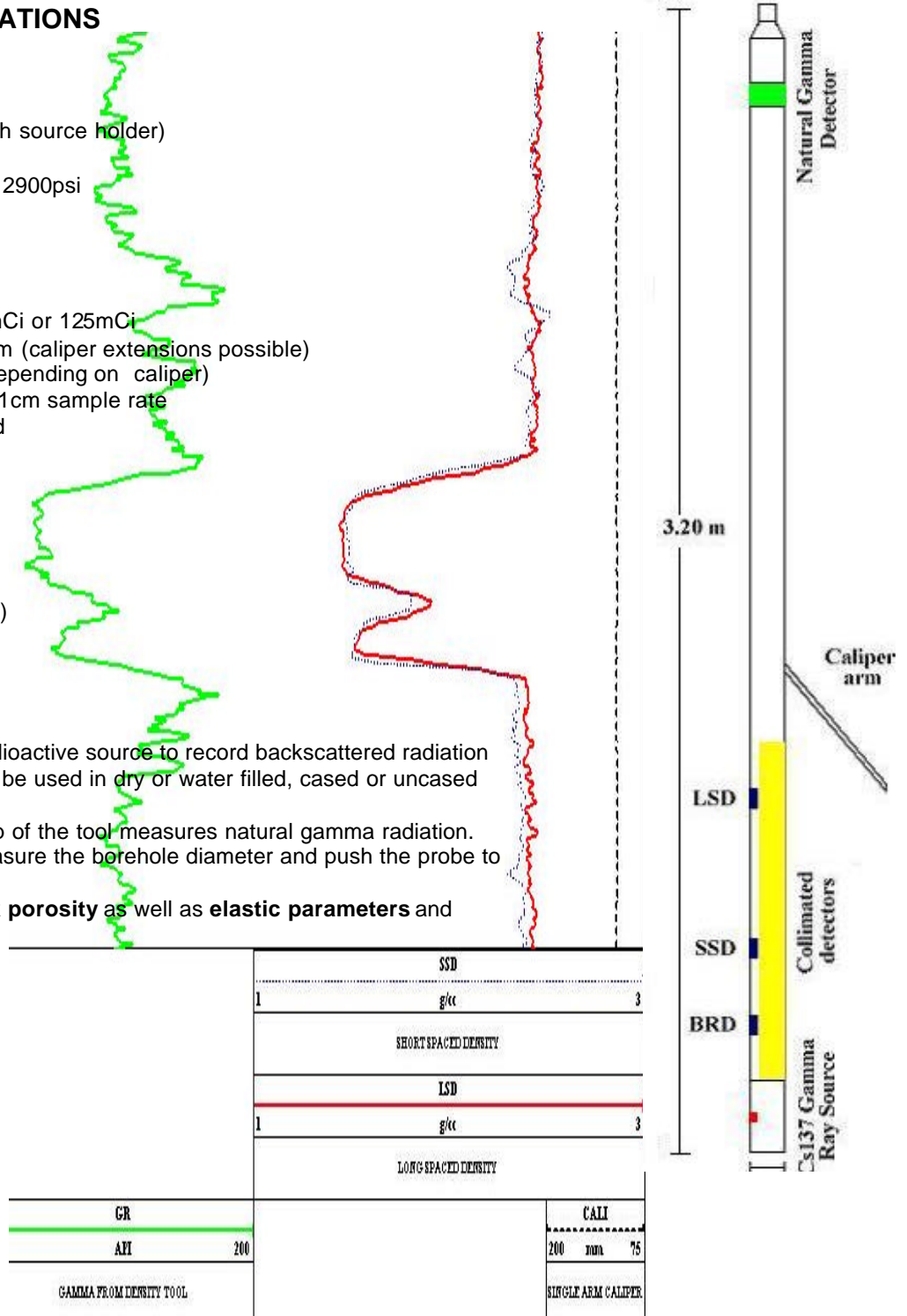
- Natural Gamma Ray (GR)
- Long Spaced Density 48cm (LSD)
- Short Spaced Density 24cm (SSD)
- Bed Resolution Density 14cm (BRD)
- Caliper (CALI)

## APPLICATIONS

The FDS probe employs a Cs<sup>137</sup> radioactive source to record backscattered radiation from the formation. This probe can be used in dry or water filled, cased or uncased wells

A natural gamma detector at the top of the tool measures natural gamma radiation. There is a single arm caliper to measure the borehole diameter and push the probe to the sidewall of the well.

From this probe **bulk density**, **rock porosity** as well as **elastic parameters** and **lithology** can be determined.



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