

ThruBit Neutron Tool



OVERVIEW

The ThruBit Neutron Tool (TBN) provides a thermal neutron porosity measurement in both open and cased hole environments. A Cf radioactive source bombards the formation with fast neutrons. The thermal neutrons that return to the tool are counted and input into one of three empirical algorithms based on a chosen reference matrix (Limestone, Sandstone, or Dolomite). The algorithm outputs thermal neutron porosity which can then be corrected for a variety of environmental factors. Corrections can be made for hole size, borehole salinity, formation salinity, mudcake thickness, mud type, mud weight, tool stand off, temperature, and pressure.

The TBN is designed to be run eccentricized with the tool applied to the formation. An over body centralizer is run for typical hole sizes, but an inline centralizer is available for smaller hole sizes.

SPECIFICATIONS

Length	74 in
Diameter	2-1/8 in
Weight	63 lbs
Max Pressure	15,000 psi
Max Temperature	300 deg F
Max Logging Speed	1800 fph
Hole Size	4 – 16 in
Porosity	0 – 50 PU
Vertical Resolution	12" – 24"
Depth of Investigation	10"
Accuracy	1 Pu at 20 Pu

