

The Compensated Neutron Logging Tool (CNLT) provides one of the primary porosity measurements used for hydrocarbon saturation calculations. When combined with other standard petrophysical measurements it also provides lithology indication—shale volume and formation gas identification.

The instrument uses an AmBe neutron source and dual thermal neutron detectors, providing a neutron porosity measurement which is compensated for borehole size and other environmental conditions.

FEATURES

APPLICATIONS



SPECIFICATION

DILT	
GENERAL SPECS	
Maximum Pressure	20,000 PSI (140 MPa)
Maximum Temperature	350 °F (175°C)
Maximum Hole Size	22.67 in (575.81 mm)
Minimum Hole Size	4.76 in (120.9 mm)
Diameter	3-5/8 in (90 mm)
Length	19.67 ft (6 m)
Weight	225 lbs (102 kg)
Max. Logging Speed	100 ft/min (30 m/min)
BOREHOLE CONDITIONS	
Borehole Fluids	Any, except high salinity
Tool Position	Centralized or stand off
HARDWARE FEATURES	
Voltage	220 Vac, 50 Hz
Current	125 mA
Sampling Rate	10, 20, 40 samples/m selectable
MEASUREMENT	
Principle	Electromagnetic Induction
Minimum	0.2 Ohmm
Maximum	2,000 Ohmm
Vertical Resolution	24 in (609.6 mm)
Depth of Investigation	Deep: 63 in (1,600.2 mm) - Medium: 31.5 in (800.1 mm)
Accuracy	± 7 % (low resistivity below 200 Ohmm)
Primary Curves	RILD, ILM

DILT