

## LLP-2676 Neutron Tool

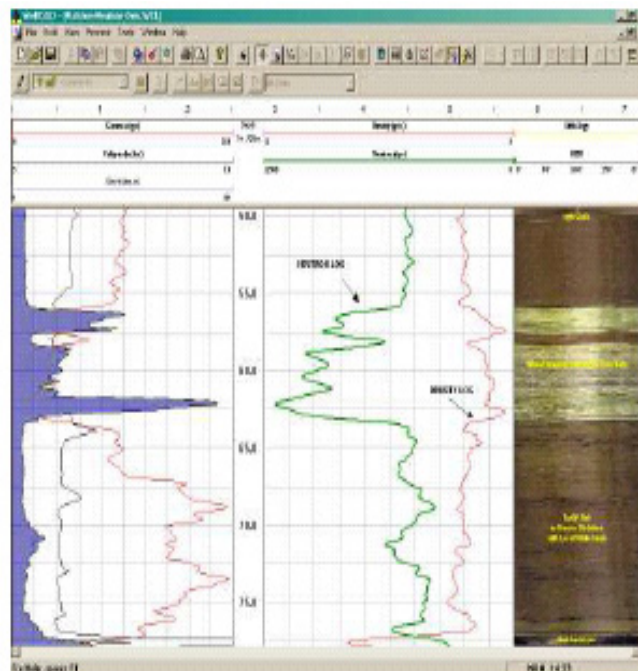
### Overview

Thermal neutron flux produced by the moderation of high-energy neutrons emitted by an Am<sup>241</sup>Be neutron source is principally related to the hydrogen ion concentration in the formation. In saturated rocks hydrogen ion concentration is related to water filled porosity.

In unsaturated rocks above the water table, the thermal neutron flux is related to moisture content.

The LLP-4676 Neutron-Thermal-Neutron probe utilizes a He-3 (4 Atm.) thermal neutron detector. The probe has been carefully designed to maximize the detector sensitivity so that excellent logs can be obtained with source strength of only 1 Curie.

The source is carried in a specially designed shield and the probe itself is the source handling tool. Although all neutron tools present a radiation hazard, the LLP2676 minimizes source-handling time making the tool safer than other commercially available neutron tools.



Sample Log comparing the neutron log with density, gamma, resistivity and borehole imagery

## Standard Single-Detector Tool

### Specifications

#### LLP-2676

Length:	46.0" (117 cm)
Diameter:	1.63" (41.4 mm)
Weight:	12.0 lbs. (5.5 Kg)
Source/Detector Spacing	13.78" (35 cm)
Operating Temperature	-25 - 85 °C
Source	1 or 3 Curie / Am241Be
Detector	He-3 (4 Atm)
Shield Weight	78 lbs (35 Kg)
Shield Dimensions	14" (33cm) dia. spher

