ALLIED HORIZONTAL WIRELINE SERVICES

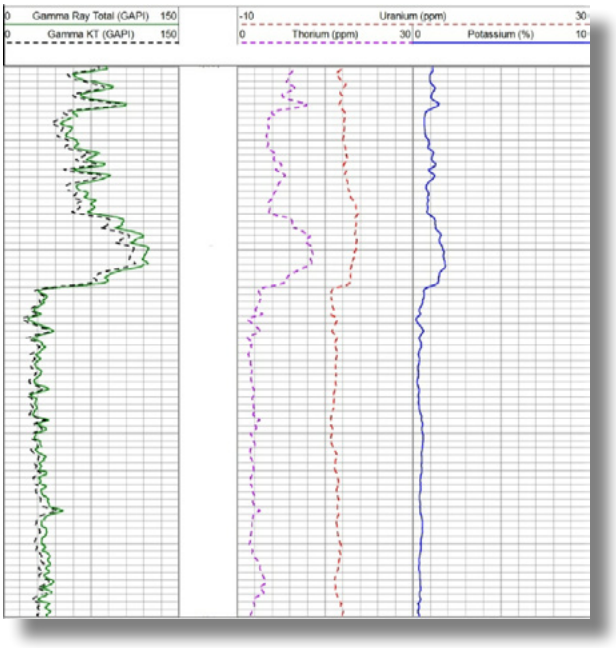
Spectral Gamma Ray Tool

The spectral gamma ray tool uses a scintillation detector to measure the quantity of naturally occurring potassium (K^{40}), uranium (U^{238}), and thorium (Th^{232}).

The SGR tool measures the naturally occurring radioactivity of the formation surrounding the tool and outputs the results as a gross gamma ray curve. By analysing the energy levels of the incoming gamma rays in a 256- channel spectrum, the tool is capable of providing the amount of potassium, thorium, and uranium contributing to the total gamma ray count. The results are used in clay volume calculations, clay type analysis, heavy mineral detection, and fracture detection.

Features

- Rugged construction 302 deg F and 20 kpsi
- Fully compatible with GE Ultrawire™ tools
- Large scintillation detector improves sensitivity and efficiency
- Spectrum peak alignment handled by software, does not contain a radioactive source
- Easy to transport – length less than 10 ft



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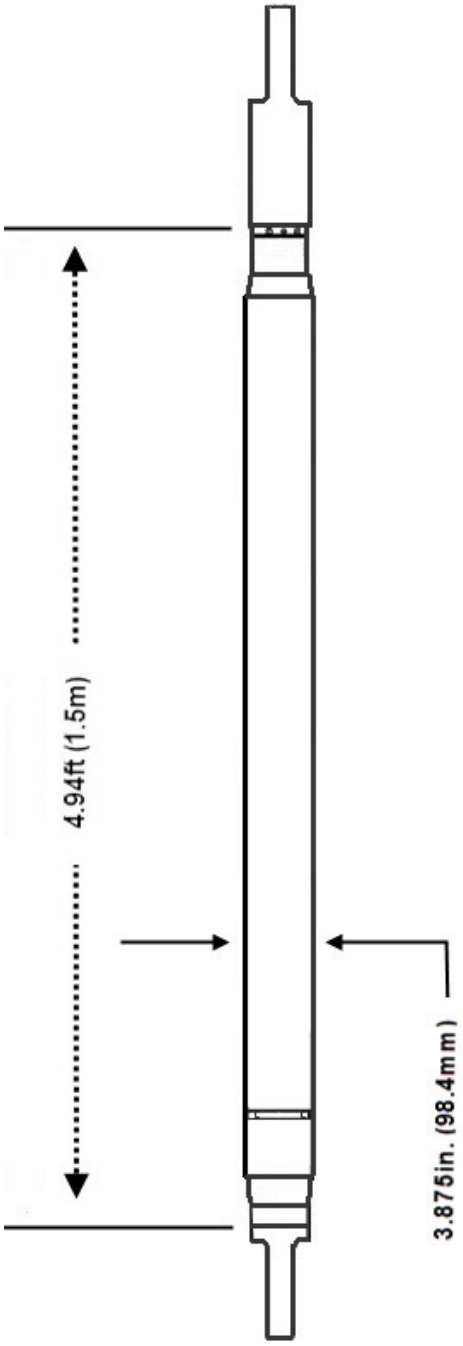

Specifications		
Maximum OD	3 7/8 in	98.4 mm
Makeup Length	4.94 ft	1.51 m
Weight	120 lbs	55 kg
Maximum Temperature	302ºF	150ºC
Maximum Pressure	20 kpsi	137.9 Mpa
Minimum Hole	6 in	152 mm
Maximum Hole	16 in	406 mm
Sensor Offsets		
LLS/LLD	1.87 ft	0.57 m
Borehole Conditions		
Borehole Fluids	Fresh, salt, oil, air	
Recommended Logging Speed	30 ft/min	9.1 m/min
Tool Position	Centralized/Eccentralized	
Measurement		
Accuracy	Th^{232} 0-100 ppm, +/- 3.5 ppm Ur^{238} 0-100 ppm, +/- 2.5 ppm K^{40} 0-15%, +/- 0.4%	
Vertical Resolution	12 in.	30.5 cm
Measurement Range	0 -3.0 Mev 0 - 2000 API	
Primary Curves	SGR, K, Th, U	
Hardware and Power Requirements		
HTool Bus	Ultrawire	
Power	18 VDC	

Specifications courtesy of GE-Energy

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