



2GHF-1000

Triple Gamma-Ray Scintillometer / Geiger Probe Section

URANIUM EXPLORATION PROBE

2GHF-1000 **Triple Gamma-Ray Scintillometer / Geiger Probe Section** which measures natural gamma radiation from a 13mm dia. x 38 mm long NaI scintillation crystal and a ZP1320 High-Flux Geiger-Muller tube pair with anti-coincidence circuitry resulting in three natural gamma logs, collected simultaneously. This DX probe section can be run with other DX family probe sections to combine other measurements.

The most sensitive detector is the photomultiplier tube and 38mm NaI crystal assembly. The G-M tube pair, installed below the NaI detector, has been used successfully to determine ore grade in very high concentrations of U₃O₈. Anti-coincidence circuitry allows data from each G-M tube, along with their sum, to be collected and recorded as geophysical logs in real time.

By having three different detector sensitivities, the 2GHF-1000 probe can be used in exploration and production projects with a wide variation in ore grade.

Accurate concentrations can be measured in uranium ore grades ranging from less than 0.1% to as high as 20% U₃O₈.

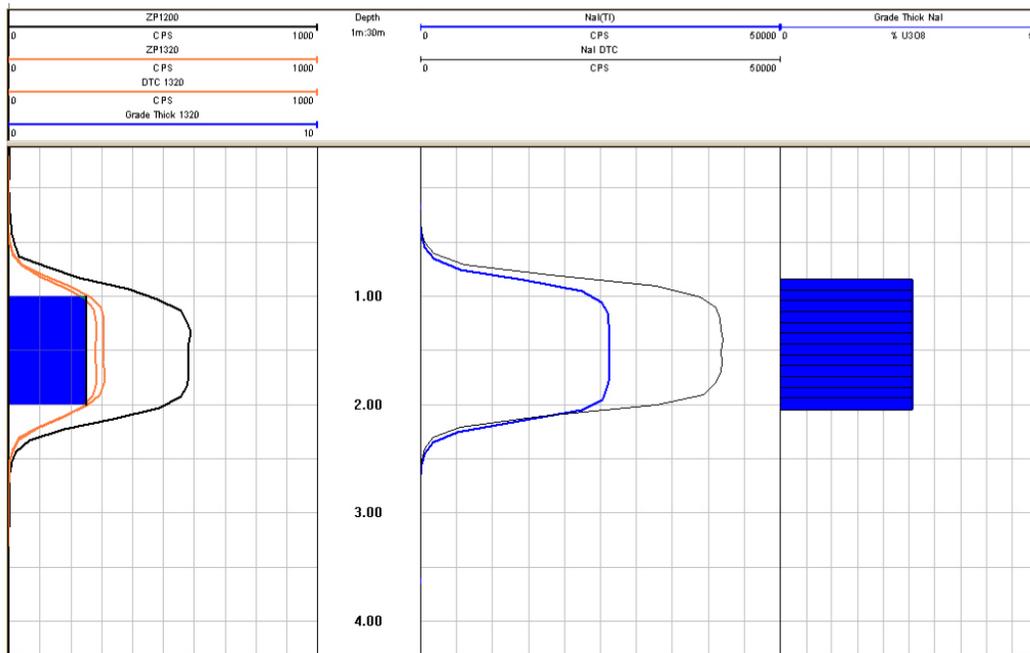
Data is logged from all detectors on a single pass in the hole, since the data is digitized in the probe and sent to the surface by modem

Average K-factors	(0.24% U ₃ O ₈):
NaI:	4.75 x 10 ⁻⁶
G1200	5.3 x 10 ⁻⁶
G1320	1.1 x 10 ⁻⁶



SPECIFICATIONS

Diameter:	1.5 inches	(38 mm)
Length:	64.5 inches	(1.186 meters)
Temp:	14 to 122 Deg. F	(-10 to 50 Deg. C)
Power:	100V DC	-150mA
PMT/Xtal detector from bottom	6.0"	.152 meters
ZP1320 detector from bottom	23.0"	.584 meters
ZP1200 detector from bottom	26.5"	.673 meters
Combo 2SMA & 2GHF probes	71.0"	1.803 meters



2GHF-1000 calibration in 2.6% U3O8 model