



CORE ANALYSIS EQUIPMENT

For over 30 years OFI Testing Equipment (OFITE) has provided instruments and reagents for testing drilling fluids, well cements, completion fluids, and wastewater. In addition to these product lines we also offer a range of instruments for core analysis. From our manufacturing facility in Houston, TX we provide customers all over the world with quality products and exceptional service.

Our extensive line of Core Analysis products includes equipment for preparing core samples, routine testing, and advanced analysis.

As an independent manufacturer and supplier, OFITE has one priority, our customers.

SGR-740 Spectral Gamma Ray Core Logger

A total gamma-ray well log is a recording of the total natural gamma radiation of the formation around the wellbore. A spectral gamma-ray well log is a recording of the relative amounts of the three main elements that create the natural radiation (Potassium, Uranium, and Thorium).

The OFITE SGR-740 Gamma Ray Core Logger measures the energy level and quantity of the radiation emitted from a core sample and calculates the quantity of each of the elements. The amounts of each of these elements and the total gamma-ray count are then plotted as a function of depth.



Features

- Dual logging mode - simultaneously plots Spectral and Total logs from cores in one pass
- Constant temperature controller is integrated with scintillation detector - improves repeatability
- Stepper motor drive mechanism for multiple speed settings - optimizes resolution and speed
- Automatic conveyor stop mode - prevents cores from falling off end of conveyor
- Mounted on locking swivel castors - enables quick and easy moving
- V-shaped conveyor track - keeps cores in center of conveyor
- Can log cores up to 7" in diameter
- Calibration standards are available on request





Method of Operation

To begin a test, the operator arranges the core samples onto the conveyor belt in order of depth. The unit will record background radiation for 15 minutes in order to establish a base reading. Then the conveyor belt pulls the samples through the machine while the computer shows the results on the screen. At the end of the test, the results are graphed and can be printed or exported. The SGR-740 plots both spectral and total gamma radiation.

Technical Specifications and Requirements

- 700-410 SGR-740 Spectral Gamma Ray Core Logger

Specifications

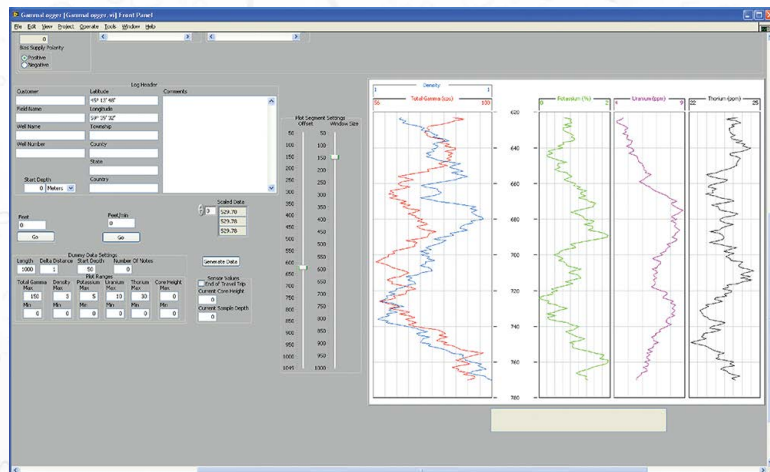
- Belt Size: 6" wide × 9' long (15 × 274 cm)
- Gamma Ray Detector: NaI Crystal, 3" × 3" (8 × 8 cm)
- Size: 24" × 47" × 118" (60 × 120 × 300 cm)
- Weight: 992 lb (450 kg)

Requirements

- Power: 230 Volts, 50/60 Hz, 2 Amps

Data Acquisition Features

- Comes complete with a PC and software for Logger Control and Data Acquisition



Introduction

The natural gamma ray radiation emitted from rocks varies with the lithology. The radiation comes from the radioactive decay of Potassium, Uranium, and Thorium, which are present as trace elements. Shale typically contains more of these elements than clean sandstone or limestone. Generally, formations with higher shale content release more radiation.

A gamma ray well log is a recording of the natural gamma radiation of the formation around the well bore and is almost always run in conjunction with other well logs. Because the gamma ray log does not change with well treatment or production, it can be used to correlate the depths of the other well logs and the core gamma ray log from the same hole.

The OFITE Gamma Ray Core Logger measures the energy level and quantity of the radiation emitted from a core sample and calculates the quantity of each of the elements. The amounts of each of these elements and the total gamma-ray count are then plotted as a function of depth.

Description

To begin a test, the operator arranges the core samples onto the conveyor belt in order of depth. The unit will record background radiation for 15 minutes in order to establish a base reading. Then the conveyor belt pulls the samples through the machine while the computer shows the results on the screen. At the end of the test, the results are graphed and can be printed or exported. The total gamma-ray log is also available.

Specifications

Maximum Core Diameter: 4.5" (11.4cm)
Maximum Belt Speed: 7 fpm (2.1 mpm)
System Dimensions: 23.6" x 47.2" x 118.1" (60 cm x 120 cm x 300 cm)
System Weight: 992 lbs (450 kg)
Gamma Ray Detector
Type and Size: NaI 3" x 3" (7.6 cm x 7.6 cm)

Components

#120-00-033 Pillow Block Bearings, Qty: 3
#700-400-014 Conveyor Belt
#700-400-018 Photo Sensor, Qty: 2
#700-410-068 Calibration Gauge, Sample Size 4.5
#700-410-069 Calibration Gauge, Sample Size 2.375
#700-410-401 Calibration Standard, Potassium
#700-410-402 Calibration Standard, Thorium
#700-410-403 Calibration Standard, Uranium
#700-410-404 Calibration Standard, Background
#900-1908 Desktop Computer
#900-2202 Computer Monitor

Replacement Parts:

#700-400-017 Distance Sensor
#700-400-021 Motor
#700-410-001 Multi-Channel Analyzer