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Corela GRG-01 Data Sheet

The Corela gamma ray logger system, as designed by Georadis S.R.O and Crytur, enables the operator to analyse core rock samples in detail, and obtain in situ gamma ray and K, U and Th concentration patten logging measurements. A high sensitivity system which incorporates Tungsten shielding (which increases the data sensitivity and enhances signal attenuation) and radiation detectors to ensure the user remains safe during operation and whilst handling the raw samples. A more compact and versatile design when compared with alternative larger setups which equals the accuracy of such instrumentation, in a lighter and smaller configuration.

The system uses a new generation of smaller highly sensitive radiation detectors which are double the density and sensitivity of those which have been previously used in other gamma ray spectrometers. The system can be operated using the CorelaView software to set up acquire (variable measuring modes: Static or Slow motion) over manual or remote control, analyse, process and view the data. Offering self-diagnostics, autocalibration and the graphic output of the depth profile illustrating the concentrations of K, U, Ue, Th activity index and API at depth. To obtain better data quality the software combines the least squares method with an advanced algorithm to optimise the calculation of K, U and Th concentrations. Corela offers a faster data acquisition measuring up to 40cm of core log in 8hrs and productivity is increased as the system includes one measuring segment with 3 detectors (Fig1).

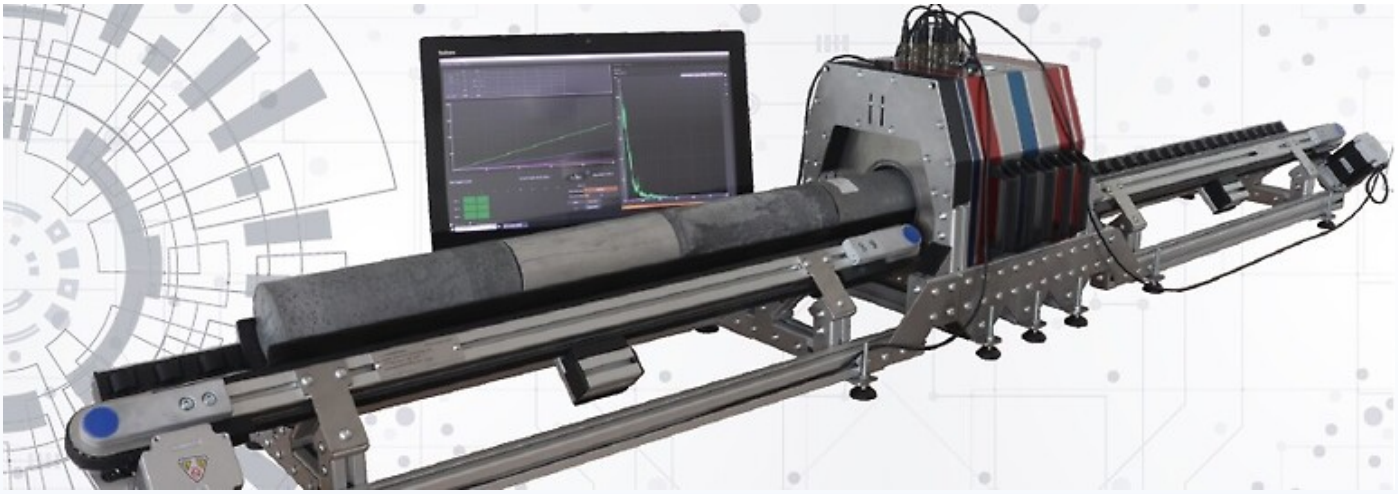

Fig. 1 Full length image of the gamma ray core sampler comprised of the measurement section with 3 detectors and the conveyor system including a rock core sample which is being analysed (Image courteously provided by Georadis)

The system is designed so that it can be easily maneuvered from one mining camp to another whereby it can be disassembled and re-assembled with ease. It uses a modular design with measuring shielding and lateral segments making it customisable (e.g. the base system has a measuring segment with 3 detectors which are embedded in the tungsten shielding, 4 standard lead shielding segments and 2 later segments with a conveyor). The Corela can make up to 7 measuring segments to increase productivity at 5 cm or 15cm spacing.

Key Features

- Automatic gain stabilisation - using natural background radiation removing the need for a radioactive check source
- High Sensitivity & Resolution with a smaller more compact design
- More portable and compact solution for analysing corelogs between survey sites with modular upgrades
- Tungsten shielding - Improves data sensitivity
- Coralview software for better data analysis
- Faster acquisition and easier field deployment

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- Simultaneous measurement of K, U and Th which the user can define to % , ppm Si or Bq/Kg & W/kg
- Different cores can be measured regular or fragmented 2 to 10cm in diameter
- Optional automated measurement process

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	1.5 m x tbc x tbc	220 kg (complete base system)

Technical Specifications

Operating Temperature / Storage Temperature:	-20°C to +50°C / -20°C to +60°C
Weight per individual Segment Measuring (M)/ Shielding (S)/ Lateral(L):	42kg / 45kg /20Kg Base system is LSSMSSL ; 280kg
Detectors in each measuring segment:	3
Max number of measuring segments:	7
Max number of detectors:	21
Max number of spectrometers:	21
Sample Diameter:	2-10cm
Conveyor System Weight:	45 Kg
MCA Channels:	1024
Protection Rating:	IP64
Operating Length of Device:	1.5 m
Power Supply:	USB C or external 24V DC
Data Connection:	LAN Ethernet, min 10Mbit, USB 2.0

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