

New Four-Core 3,000m (10,000ft) world first high speed wireline borehole camera system

> RGeo-eye® is a slimline full colour downward view camera, operating on a 4-core or coaxial cable at high transmission rate and is fully compatible with existing Robertson Geo winches and surface systems.

# Seeing is believing







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RGeo-eye<sup>®</sup> employs a downward facing window with a fish-eye lens fully corrected for lens distortion before data is compressed and sent uphole. An LED light source, with controllable brightness is integral to the probe.



Open hole.



Cased hole.

The RGeo-eye<sup>®</sup> camera system is a new introduction of a design and build development by Robertson Geo. It has a deep operating range for the acquisition of high quality video feed for deep subsurface applications. The camera operates on industry-standard 4-core or coaxial wireline cable, and offers pressure ratings to 5000 psi and a 75°C temperature rating.



The system incorporates **RGeo-fast**<sup>®</sup> **delivering 1 Megabit/sec communication speed** enabling the acquisition of high resolution video feed from downhole (to 3,000m) in air or water filled open or cased boreholes while allowing real-time viewing for the surface operative.

The camera has auto focus, a frontal six LED internal array with adjustable lighting intensity, and a user selectable resolution of SVGA ( $800 \times 600$ ) or ( $600 \times 600$ ), at up to 30 frames/sec.





The RGeo-eye® is a robust, easy to deploy downhole camera at 1.08m (or 1.91m with sinker bar) x 43mm and only 5kg.

The standard RGeo-eye® camera is rated at 75°C, with an 85°C version available later in Q4. A 100°C version to follow in 2022.

The acquisition software package provided with the RGeo-eye® camera system allows extensive operator control including video resolution, frame rate, shutter speed, lighting brightness, white balance, UXGA 'snapshot' mode and real time video annotations.

Four user definable presets allow the operator to store optimal settings for various borehole conditions. Video is recorded in AVI and converted to MP4 for storage and relay.

It allows screen shots to be captured and text editing while viewing/recording. Where more detail is required, full colour 'snapshot' images can also be captured at 1600 x 1200.



eiving streamed data... 🖬 🚺 RATING: MAX. 2000m (

The RGeo-eye® camera comes with acquisition software that's easy to configure and work with, offering resolution control; lighting control; depth recording; text editing; recording video; screenshots; RGeo-eye® specification and depth & temperature warnings; Power meter and High res. frame capture mode with zoom-in function.

×

Light metering:

whole frame

Frames per second:

Compression level

Apply

O spot

O matrix

Shutter

auto

O 15

30

OHigh

O Low

O Medium

#### YouTube videos:

If viewing this literature digitally, click for downhole videos available on YouTube RGeo-eye® playlist.







Downhole video.



#### **APPLICATIONS:**

Borehole and casing integrity inspection Surveillance of mines, shafts, caverns and voids Assessment of deep concrete piles Pre-logging borehole examination Damage detection in subsurface structures

#### **OPERATING CONDITIONS:**

Borehole Type: Air/water filled open hole or cased hole Recommended Logging Speed: 2 - 5m/min Depth rating: 3,000m on 4-core cable

or 1,000m on coaxial cable\*

#### **SPECIFICATIONS:**

Diameter: 43mm

Length: 1.08m, or 1.91m with sinker bar Weight: 5kgs Communication rate: RGeo-fast® 1 Megabit/sec Resolution: Up to 30 frames per sec SVGA (800x600) or (600 x 600) - User selectable 'Snapshot' mode: high resolution still image at UXGA (1600 x 1200) Standard temperature rating: 0-75°C (85°C version releases Q4 2021) - a 100°C version to follow in 2022 Max pressure: 5000 psi Autofocus Frontal LED internal array, with adjustable lighting intensity Light output: 6 x 282lm @ 3,000K LEDs Additional lighting options for large diameter voids **(** E CE Certified and manufactured within an ISO9001:2015 quality system Recommended minimum computer specification: i7 7700 processor with 16GB of memory running Intel HD Graphics 630 card running Windows 10 64-bit

#### PART NUMBERS:

1020263	RGeo-eye® Digital Downhole Camera (1,000m)
1020408	RGeo-eye® Digital Downhole Camera (2,000m)
1020409	RGeo-eye® Digital Downhole Camera (3,000m)
1020412	Custom Peli Case for RGeo-eye® Camera
1020264	RGeo-eye® Centraliser 76-110mm
1020265	RGeo-eye® Centraliser 90-180mm
1020266	RGeo-eye® Centraliser 180-260mm
1020267	RGeo-eye® Sinker Bar

\* The depth rating on coaxial cable is dependent on the coaxial cable properties.





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