

HyLogger 4

Hyperspectral mineralogical drill core scanner



 **HYLOGGER**



Go **Hyperspectral**

HyLogger 4 is a highly advanced mineralogical drill core scanner. **Drill, HyLog, Reveal** — and get the high-quality data you need to make decisions. Fast and with unmatched detail and objectivity.

HyLogger 4 is built by geologists for geoscientists and metallurgists. Each core tray is uniquely calibrated using traceable standards, ensuring confident comparisons across a single 1 000-meter hole or multiple drill holes.

Its four custom-designed visible and infrared spectrometer systems span the full spectral range — from 400 to 15 000 nanometers — delivering unmatched coverage. Find the signatures of hazardous and deleterious minerals before they can cause harm or cost money.

⊕ Main benefits

Speed and repeatability. Quickly models the composition of a particular mineral system or location. This saves significant work and effort, reducing risks while **improving efficiency and cost-effectiveness**. Highly repeatable as every core tray is calibrated to NIST traceable standards.

Pinpoint accuracy. Creates detailed geological logs (including 3D structural data). This provides decision-makers with an opportunity to make better **business decisions using near-real-time data**.

Versatility and expertise. Works in diverse geological environments and recognizes a large suite of minerals. Once HyLogged, the digital data can be revisited to find other alteration or vector minerals not originally searched for, as metal markets change. This **opens up new business opportunities** and adds to the asset value of the core.

No matter the terrain, mineral system, or location, HyLogger 4 takes quick and precise scans and analyzes the rock in near real-time.

Think inside the box

HyLogger 4 has the richest data in the industry, yet you can process it on a laptop, **wherever you are**.



Explore key features

■ Fast, objective and timely

Rapidly identifies the composition of key mineral systems components increasing accuracy, efficiency thus saving time, and money.

■ The most advanced sensors

Collects detailed 1448 channel spectra from multiple co-registered spectrometers for every 4 mm of core or chips and converts these into relative mineral abundance. More channels means more minerals and more certainty, reducing risk and aiding business decisions.

■ Utility

Suitable for exploration, mining, mineral processing or civil engineering projects.

■ Versatile

Works in diverse geological environments whether orogenic gold, porphyry copper, IOCG, rare earth or lithium critical minerals, iron ores, komatiite nickel or sedimentary systems and basins.

■ High resolution records

Delivers standardised and awesome 25-micron core images with the mineralogy.



Convert kilometres of new or old core, or chips, into meaningful geological logs for multiple uses, suitable for 3D modelling.

RGB Photography

Spatial resolution	25 µm
Color depth	24 bit
Color mode	3 x CCD
Sensor type	Line scan

3D profiling

Spatial resolution	50 µm
Height resolution	15 µm

IR spectrometer

Sensor type	Profiling
Spectrometer modules	5
Cooling systems	Peltier/Stirling
Spectral range - VNIR (nm)	450 – 1 000
Spectral range - SWIR (nm)	1 000 – 2 500
Spectral range - MWIR (nm)	2 000 – 6 000
Spectral range - LWIR (nm)	6 000 – 15 000
Spectra per metre (1000 mm x 60 mm)	250

Profiling Spectrometer - Resolutions

@ 450 nm	4 nm
@ 1 000 nm	4 nm
@ 1 300 nm	4 nm
@ 1 800 nm	4 nm
@ 2 200 nm	4 nm
@ 2 500 nm	4 nm
@ 3 000 nm	5 nm
@ 4 000 nm	8 nm
@ 5 000 nm	13 nm
@ 6 000 nm	19 nm
@ 8 000 nm	33 nm
@ 10 000 nm	52 nm
@ 12 000 nm	74 nm
@ 14 000 nm	101 nm
@ 15 000 nm	116 nm

General

Data volume per metre	~ 1 000 MB
Core tray length (max)	1 550 mm
Core tray width (max)	700 mm
Supports material weighing	Yes
Sample weight range	35 kg
Sample weight resolution	200 g
Scanning speed	48 mm per second
Supports pass-through workflow	Yes
System net weight	2 600 kg
Interpretation software	HyLogger 4 is shipped with, and supports, 'The Spectral Geologist' (TSG) software from CSIRO — Australia's premier science research agency.

Drill. Hylog. Reveal.

HyLogger 4 enables you to quickly learn if your mineral system contains the diagnostics minerals you're after. You can also rescan old cores to check if what was not interesting in the past provides opportunities to grow your business today.



Discover more about
HyLogger 4.

