


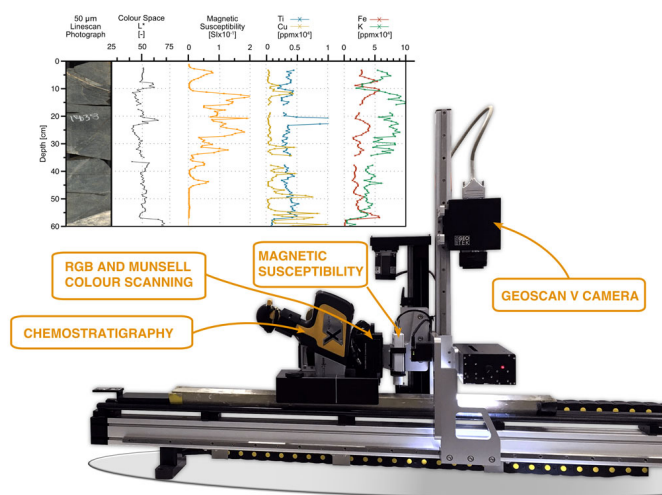
Multi-Sensor Core Logger (MSCL-XZ SN116)

**Attention:**

Please note that the system can only be operated upon request. Operations with the MSCL-XZ requires experienced scientific staff on board. The system is not operated by the ship's crew. Announce operations with the MSCL-XZ to AWI-Logistics prior to the cruise and clarify the data transfer after the cruise.

Summary

The MSCL-XZ is a benchtop or small-footprint core logging system that provides a compact solution for split core non-destructive measurements, obtaining multiple data sets simultaneously. Unlike the MSCL-S, where the core moves past the sensors, the bench-top MSCL-XZ moves the sensors along the core (X-axis) while the sensors move up and down to contact the core surface (Z-axis). Split core sections enable sensors to be used that cannot operate through the plastic liner: X-ray fluorescence (Olympus Delta handheld), colour spectrophotometry, high-resolution magnetic susceptibility, and Geoscan V linescan core imaging.



Manufacturer	Geotek Ltd.
Model	MSCL-XY
Serial No	116
Type	Multi-Sensor Benchtop Logger

Contacts

Role	Name
Principal Investigator	Frank Niessen
Data Scientist	Catalina Gebhardt
Engineer in Charge	Dietmar Penshorn

Components

Benchtop or small-footprint core logging system with following sensors: X-ray fluorescence, colour spectrophotometer, high-resolution magnetic point susceptibility, Geoscan V linescan core imaging. Fully automated motion in the horizontal and vertical axes. Linear precision: 0.02 mm. All sensors are moved in unison and collect data in parallel. Data acquisition unit and electronics.

Sensor Type	Olympus Delta handheld X-ray fluorescence (XRF)	Minolta Colour Spectrophotometer	Magnetic Susceptibility Bartington MS2E "point" sensor	Geoscan V Linescan Imaging
Manufacturer	Olympus	Minolta	Bartington	Geotek Ltd.

Components	Olympus Delta handheld X-ray fluorescence (XRF) mounting counterbalance weight	Minolta colour spectrophotometer (39 spectral bands)	Magnetic Susceptibility Bartington MS2E "point" sensor	Geoscan V Linescan Imaging Camera specifications: Pixel Sensors: 1x 5K CGD Visible or Ultraviolet light source ADC resolution: 14 bits per colour channel correlated double sampling with exposure control max pixel rate: 3.2M pixels/sec max scan rate: 200 lines/sec down core resolution: up to 10 microns camera control: auto focus, aperture and lighting data transmission: gigabyte ethernet interface Canon lens mount
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Data logging, storage and archiving

Logged parameters

X-ray fluorescence (XRF), Colour Spectrophotometry, high-resolution magnetic point susceptibility, Linescan Core Imaging

Rawdata storage on board

Local storage on MSCL-XZ electronic. Operator is in charge of data backup.

Documentation

- <http://www.geotek.co.uk/products/mscl-xz/>
- <https://www.olympus-ims.com/en/xrf-xrd/delta-handheld/delta-prof/>
- <http://www.geotek.co.uk/products/spectrophotometer/>
- <http://www.geotek.co.uk/products/magsusc/>
- <http://www.geotek.co.uk/products/geoscan/>