

SPECTRAL EVOLUTION

Tungsten Exploration

Tungsten is a very hard metal with a high melting point. It has many industrial uses, including in combination with cemented carbides for cutting wear-resistant materials, in alloys used for components in electrical heating, lighting and welding applications, as a catalyst, a pigment in paint and as ferrotungsten in steel and alloys requiring hardness and heat resistance.

The two main minerals associated with tungsten are wolframite and scheelite. Scheelite is a primary tungsten ore commonly found in contact-metamorphic deposits, high temperature hydrothermal veins, greisens and granitic pegmatites.

A geologist can identify scheelite in the field using a field portable oreXpress spectrometer, oreXplorer or ultra-high resolution oreXpert spectrometer running EZ-ID mineral identification software. Using EZ-ID with the USGS spectral library, or the optional SpecMIN™ and GeoSPEC libraries, the software quickly provides accurate matching of an unknown target with a known mineral spectra. The GeoSPEC library includes six known samples of scheelite for comparison and identification.

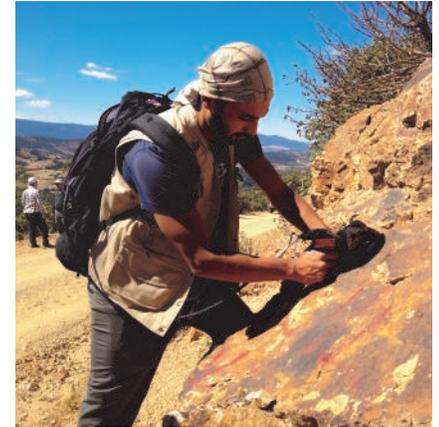
The oreXpress, oreXplorer and oreXpert are full range (350-2500nm) field spectrometers with rugged design and no moving optical parts for exceptional field reliability. Running off lithium-ion batteries they offer a full day of scanning in the field.

Benefits include:

- ◆ Quickly collect a lot of scans
- ◆ Cover more ground in less time for better mapping
- ◆ Collect more accurate data for a more complete picture of the area you are exploring
- ◆ Get results immediately instead of waiting for lab analysis
- ◆ Drill fewer holes with better results
- ◆ Speed-up core shack scanning and logging, accurately identify samples of interest, and save on assay costs

In addition to matching against a known library, EZ-ID with the Custom Library Builder module, allows you to quickly scan and build your own spectral library or add new samples to an existing library. You can add known samples as you scan or later along with metadata to accompany your spectrum.

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oreXpress spectrometers are ideal for single-user field exploration in tungsten exploration.



EZ-ID software identifies minerals in real-time by matching your target spectra against a known spectral library such as the USGS library, the SpecMIN library or the GeoSPEC library. The scan above is from the GeoSPEC high resolution library showing a scan of primarily scheelite with a slight mixture of rare earths.

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