



## **PRESS RELEASE**

### **oreXpress™ with EZ-ID™ real-time mineral identification – for identifying heavy rare earth bearing minerals**

*Lawrence, MA – July 29, 2015* – The oreXpress field spectrometer for mining with EZ-ID software can provide critical real-time mineral identification for heavy rare earth bearing minerals. Heavy rare earths include:

- Europium
- Gadolinium
- Terbium
- Dysprosium
- Holmium
- Erbium
- Thulium
- Ytterbium
- Lutetium
- Yttrium

Heavy rare earths (HREEs) are important for a wide range of high tech and energy applications. For example, dysprosium is used for permanent magnets, europium for phosphors and fuel cells, terbium for phosphors and permanent magnets, and yttrium for red phosphor, fluorescent lamps, ceramics, and metal alloys.

Rare earth bearing minerals for HREEs can include monazite and xenotime – two minerals that can be found in the spectral libraries available with the oreXpress and EZ-ID. They are both phosphate minerals. Xenotime is usually found in acidic and alkaline rocks and occasionally in mica schists and quartz gneisses. Monazite is associated with high specific gravity minerals such as ilmenite, magnetite, rutile, and zircon.

The oreXpress is a field portable spectrometer designed for mining exploration. The oreXpress spectrometer delivers:

- Rapid data/spectra collection in the field
- High resolution scanning

- High signal to noise ratio for improved sensitivity
- Fast start-up and use with no optimization step required between scans
- Sturdy construction to handle field conditions
- Reliability with no moving optics and a robust metal clad fiber optic cable connector with easy-disconnect fiber
- A rugged and reliable mineral contact probe for single click field measurements, use in core logging shacks, and with chip trays

oreXpress with EZ-ID mineral identification software matches your unknown target mineral against a known spectral library. EZ-ID is available with the USGS library and the SpecMIN™ library from Spectral International.

The SpecMIN library includes over 500 infrared active mineral species with more than 1,500 individual spectra. This unique spectral library includes a minimum of two different samples per mineral, including heavy rare earth bearing minerals.

EZ-ID features:

- Fast and accurate identification of an unknown mineral to a known library sample
- Ease of use – just collect a target scan and see immediate match results in real time on your laptop
- Simple, consistent user interface
- Include or exclude spectral regions of interest for optimal results
- Fast scanning for optimum field work or core shack logging

With our Custom Library Builder software module, EZ-ID allows you to scan known samples and quickly build a custom library for a particular project, mineral, location, and more. You can select pre-defined metadata fields or define your own.

For more information: [http://www.spectralevolution.com/applications\\_HREE.html](http://www.spectralevolution.com/applications_HREE.html)

#### **About SPECTRAL EVOLUTION**

Established in 2004, SPECTRAL EVOLUTION is a leading manufacturer of laboratory and handheld portable spectrometers, spectroradiometers and spectrophotometers. SPECTRAL EVOLUTION spectrometers are used worldwide for many mission-critical lab and field applications in mining, remote sensing, vegetative studies, ground truthing, environmental and climate studies, developing satellite calibrations, and more, due to their reliable, robust, rugged design and user-friendly one-touch features.

EZ-ID and oreXpress are trademarks of SPECTRAL EVOLUTION. SpecMIN is a trademark of Spectral International.

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