



PRESS RELEASE

Identifying mica alteration with an oreXpress NIR field spectrometer

Lawrence, MA – January 7, 2016 – The alteration path from montmorillonite to muscovite can provide an indication of the proximity of an ore zone. In addition, it can also be hard to track, even for an experienced geologist. Mica alteration minerals including montmorillonite, phengite, sericite and muscovite can be identified using an oreXpress field spectrometer with optional EZ-ID mineral identification software.

As “white micas” alter from containing lower to higher percentages of aluminum, essentially moving from clay illite to the mica sericite to muscovite, the change can be seen and measured as a spectral shift of an absorption feature at the 2200nm wavelength. The spectral shift is indicative of changes in aluminum hydroxide content and can be a sign of proximity to an ore zone.

The depth, breadth, and position of the aluminum hydroxide absorption feature at 2200nm can indicate the composition of the mica. Phenetic muscovite (magnesium and iron rich) can appear at 2207nm and have a longer wavelength, while muscovite at 2205nm has a shorter wavelength. The presence of acid in the mica pushes the identification toward muscovite; neutral pH toward phengite. In samples where the mica is mixed with chlorite, the chlorite can be identified with absorption peaks near 2250nm and 2350nm.

In addition to providing accurate and clear spectra, an oreXpress with EZ-ID will match the unknown sample against two mineral spectra libraries from SpecMIN and USGS and offer potential matches. EZ-ID allows a geologist to highlight only the regions of interest, for example at 2200nm- 2210nm, to focus the identification process.

All oreXpress files are saved in ASCII format for easy import into 3rd party analysis software for mine planning, mineral mapping, and 3D imaging. With mineral identification accomplished in seconds, oreXpress allows a geologist to scan more area and collect more critical data for planning a drilling strategy that will maximize the return on investment. In the core shack the ease-of-use and speed of scanning allow for

fast collection of important mineral alteration data and the creation of a core logging digital database.

For more information visit:

http://www.spectralevolution.com/applications_mica_alteration.html

To communicate with a technical sales specialist: sales@spectralevolution.com

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.

SPECTRAL EVOLUTION maintains a facility in Lawrence, Massachusetts which houses design, prototyping, manufacturing and service facilities for the instruments that it markets and sells worldwide, either through direct sales, OEM sales or through distributor agents.

Press contact

Mo Kashdan

Marketing & Sales

978-687-1833

Maurice.kashdan@spectralevolution.com

SPECTRAL EVOLUTION

1 Canal Street, Unit B1

Lawrence, MA 01840 USA

www.spectralevolution.com

