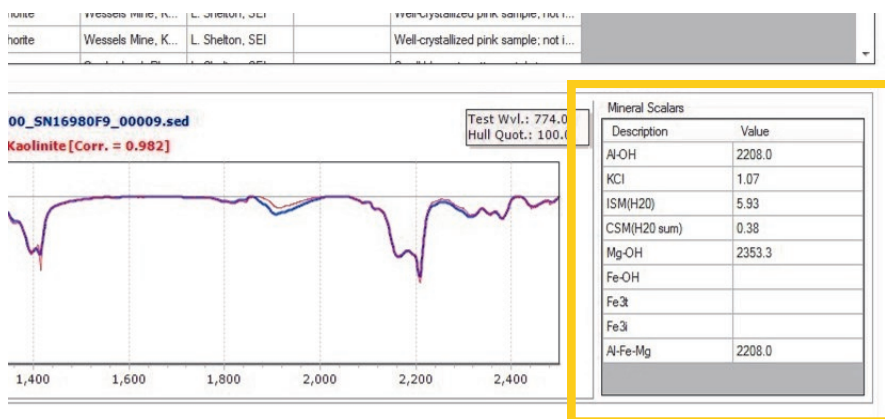


SPECTRAL EVOLUTION

EZ-ID Now Available with Scalars

EZ-ID mineral identification software now offers scalars to help geologists accurately characterize alteration patterns. Scalars provide additional information from a spectra on crystallinity, chemical bonds, and temperature of minerals at formation. Scalars include Al-OH, Kx, ISM, CSM, Mg-OH, Fe-OH, Fe3t, Fe3i and Al-Fe-Mg bonds.



EZ-ID Adds Scalars to Better Characterize Alteration

Spectral scalars can enhance the geologist's understanding of crystallinity changes, alteration pattern shifts and geochemical conditions. EZ-ID now supports spectral scalars for Al-OH bonds, kaolinite crystallinity (Kx), illite spectral maturity (ISM), chlorite spectral maturity (CSM), Mg-OH bonds, Fe-OH bonds, Fe3t (mineral type), Fe3i (mineral intensity), and Al-Fe-Mg bonds.

Al-OH

The Al-OH absorption feature at 2200nm wavelength position provides indication of geochemical conditions at the time of alteration. 2160—2240 wavelength variations.

Kx

Kaolinite crystallinity influences the shape of the Al-OH feature. A Kx greater than 1 indicates kaolinite produced by weathering; less than 1 is associated with kaolinite produced by high temperature alteration events. The lower the Kx, the higher the formation temperature.

ISM

Values greater than 1 indicate a low grade metamorphic illite; less than 1— illites produced at higher temperatures.

CSM

Values greater than 1 indicate a low metamorphic grade chlorite; less than 1 are chlorites produced at a higher temperature alteration event.

Mg-OH

The wavelength position of this feature near 2350nm indicates geochemical conditions at the time of alteration.

Fe-OH

The wavelength near 2260nm position of this feature indicates geochemical conditions at the time of alteration.

Fe3t

Hydroxide-type Fe+3 minerals typically have Fe3t values greater than 900nm; oxide type Fe+3 minerals have vales less than 900nm.

Fe3i

The higher the Fe3i value the more intense the FE+3 absorption.

Al-Fe-Mg

Reports the wavelength of the deepest absorption feature of these three. Features centered in 2160-2370nm range.



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