

What is ricolite, a rebuttal to mindat identification

By Donald Kasper 11-12-2017, updated 12-9-2022

Mindat reports that ricolite is “A variety of serpentine interbanded with talc..”

One of the two photos is annotated with this information:

“Close-up of one of two nearly identical slabs of ricolite, a banded composite of serpentine minerals (green), talc (white), iron (yellow), and manganese oxides (black). Primarily used for decorative carvings. Child photo of entire specimens.

For more (possibly dated) information about this material and the only area it is found in, see the New Mexico Bureau of Mines and Minerals report:

http://geoinfo.nmt.edu/publications/openfile/downloads/OFR014-99/14-25/14/ofr_14.pdf

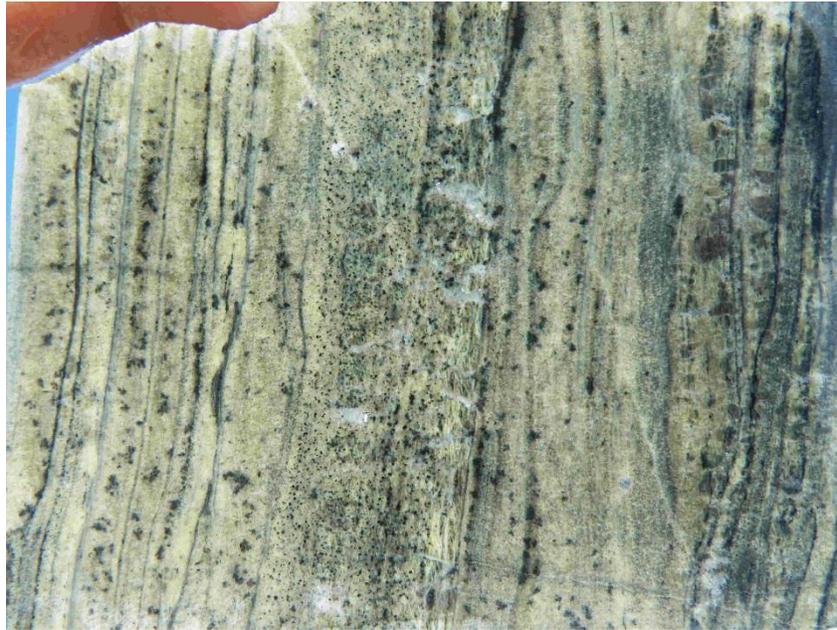
Analysis:

The first problem is that the term “variety” was established for color variations of gemstones. There is no such thing as a rock variety.

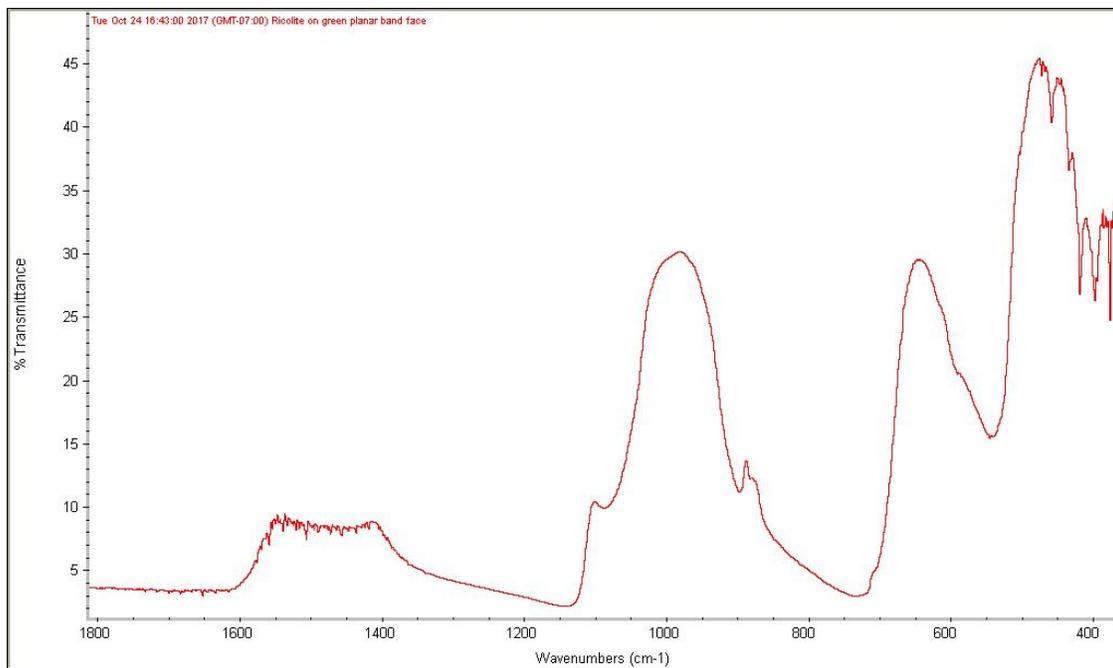
The second problem is that when the Bureau of Mines report is downloaded we find it has no statement in it that the New Mexico ricolite contains talc.

What does infrared spectroscopy show? Ricolite is lizardite serpentine. Its white veining is calcite. The Bureau of Mines report states that the deposit was fractured and filled with calcite. The site sits on a limestone basement. So, the report matches what we identify in infrared. If the serpentine has white stuff in it, it must be talc is a reasonable guess, but is totally wrong.

The specimen of ricolite studied by the author is shown below. Sometimes the word “New” is dropped off the name, and vendors state the material comes from Mexico.



Ricolite, a laminar lizardite serpentine with calcite veining. This is the specimen scanned in this report. The base on the right not seen here has a broad white vein that was scanned as calcite, although all the rock has minor calcite. The back is a fracture face with white crust that was also scanned and found to be calcite.



IR spectrum of ricolite. Left, low tabular peak is calcite. Central peak is lizardite, with right ledge at 889 and 880 cm^{-1} of calcite. Sharp rise low at 712 cm^{-1} is calcite. Peaks on right are lizardite. If the central peak group is left (higher wavenumbers) to 1000 cm^{-1} and a sharp peak, it is antigorite; if the central group is a wide roll and right (lower wavenumbers) to 1000 cm^{-1} , it is lizardite. If you get both peak structures, the rock is mixed. There are no other marker bands needed when you have the 3 general rolls of serpentine to tell them apart.