Much Ado About “Trapiche” Pezzottaite

By Elise A. Skalwold

During 2014 and 2015, this author along with GIA’s analytical microscopist, John I. Koivula, was delighted to study and later publish the first journal report of trapiche pezzottaite crystals (Skalwold and Koivula, 2015). The specimens were obtained from Elaine Rohrbach (Gem-Fare) who purchased them in a marketplace along the Thai-Burma border in 2004 and had them in her personal collection ever since.

Intensive analysis conducted at the GIA Carlsbad laboratory included advanced instrumentation, as well as standard gemological testing and exploration of its microworld. The most important revelation turned out to be the presence of cesium, confirming that these were not morganite beryl, but rather are the relatively newly described gem mineral, pezzottaite.

While the crystals’ included needles, curious blue crystals and white feathery structures (the latter form the trapiche-like zoned growth) could not be conclusively identified at that time without destructive testing, the report’s photomicrographs beautifully document their presence (taken by GIA’s Nathan Renfro, the analytical manager of the gem identification department and analytical microscopist in the inclusion research department). For discussions on what constitutes a true trapiche, see the extensive feature article by Pignatelli, et al in the 2015 Fall issue of Gems & Gemology and the letter by this author in the following Winter issue (Skalwold, 2015) The accompanying photomacrophraphs seen here of the two doubly-terminated prismatic crystals were taken by this author with transmitted fiberoptic light to illuminate the six-spoked appearance which make these delicately pink minerals one of the newest members of the trapiche world (see figures 1 and 2).

Note: As well as adding to our knowledge regarding trapiches, this contribution serves as an erratum to Jeffrey Bergman’s terrific Spring 2016 InColor feature article on the subject which inadvertently contained an incorrect image credit and some typos regarding the pezzottaite crystal.

About the Author:

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References: