

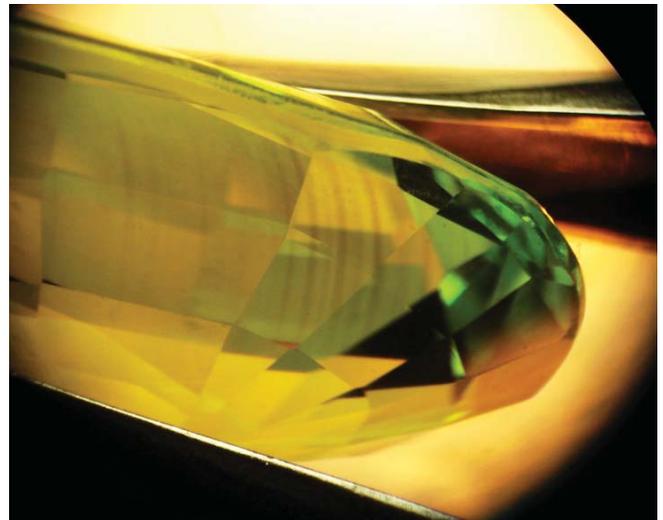
# Gem notes

Bear and Cara Williams report on a stone purchased as a peridot and an interesting new stone



Recently seen in our lab was a 11.57 carat, oval peridot. Suspicions were raised based on its below-market price. The stone was purchased in Thailand. The purity of colour and bright lustre was a bit above what is normally seen in peridot. The impression however, was that one could easily believe it to be peridot (1). The client suspected there might be a new treatment for peridot on the market. The eyepism/distant vision method showed the birefringence too low, and upon further testing an RI of 1.76-1.77 confirmed it as corundum. We had not previously seen this particular hue of green in synthetic sapphire, and it shows that anything can be imitated with the most convincing of colours. Evidence of its flame-fusion origin became apparent under magnification with the appearance of curved striae (2) seen at oblique angles.

Also of interest is a new find of transparent rhodonite from Brazil. Discovered as a by-product of large-scale manganese mining, this beautiful watermelon-coloured gem (3) can easily be mistaken for fine rhodochrosite if identified by sight alone. These particular gems display strong manganese absorption spectra, with a distinct line seen in the green (502 nm) and a broader band in the green centered at ~542 nm. Of the two stones tested in our lab, no treatments have been detected. Due to numerous inclusions and surface fissures, we would expect to see Opticon and other similar treatments applied in the future. With a hardness of 6 and beautiful colors, this gem could become very popular.



1. The 11.57 ct oval synthetic corundum with a 14.75 ct cushion Burmese peridot.
2. Curved banding (15 x).



3. Two rhodonites: the faceted stone weighs 9.25 ct and the cabochon 13.40 ct.

Photos courtesy of Bear Williams.

## About the Authors

Bear and Cara Williams operate Bear Essentials. For further information contact them at [bear@stonegrouplabs.com](mailto:bear@stonegrouplabs.com)