

Blue Topaz

Unassuming clear stone from Brazil becomes a top-seller

More blue topaz is sold in the United States than any other *non-traditional* colored stone. And, why not? Blue topaz is durable, abundant and inexpensive. It is available in large sizes and with saturated color. It is truly a success story of the last century, when it was discovered that abundant clear topaz from Brazil could be treated with irradiation to a variety of blue colors. Irradiation also occurs in the ground to create some naturally colored blue topaz, but not in the quantities and color intensities available to jewelers today.

Gemstones were integral to the early studies on the effects of radiation. Probably the most accurate and complete discussion of gemstone treatments is the book *Gemstone Enhancement* by Kurt Nassau first published in 1984 and updated in 1994. According to Nassau, in 1898 F. Bordas in the Laboratory of the College de France in Paris buried some corundums for one month in a radium salt. He obtained in colorless corundum a yellow color, and blue corundum turned an emerald green. In a sign of things to come, the jeweler who had originally sold the stones for two Francs per carat now offered him 45 Francs per carat for the treated stones!

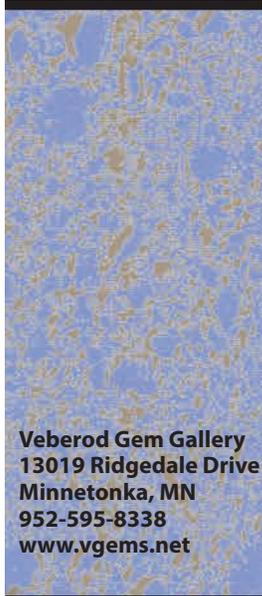
Testing continued but was concentrated on diamonds, corundum and quartzes. It wasn't until 1973 that researchers learned that some clear topaz could be treated to blue when a specimen of topaz was discovered by accident in a parcel of quartz samples being treated. When reported in a 1974 article in *Lapidary Journal*, it was viewed in the gemstone trade as an explanation for the increasingly significant amounts of blue topaz appearing on the market with

no explanation of the source. One of many times that gemstone treaters were a step ahead of the industry news it seems!

Today, most blue topaz is colored by a combination of heat, high energy electron bombardment, and exposure to neutrons in a nuclear reactor. While specific methods generally result in certain colors, variations exist depending on the source material so it is not possible to say for sure what type of treatment a specific topaz has undergone. Still the industry gives specific names to colors typical of certain treatments. Sky blue is used for the light blue colors typically produced with a linear accelerator, London blue for the steely dark blue colors typical of exposure to neutrons, and Swiss blue for the brightest colors which are a combination of irradiation and heat.

Most of the natural clear and light blue topaz used for treating comes from Brazil, especially the area around Minas Gerais where the landscape is peppered with thousands of mines, both large and small. The mines are also known for prolific production of tourmaline, aquamarine, quartz and a variety of other gemstones typically found in pegmatites.

Blue topaz is eight in hardness making it an excellent choice for all types of jewelry and its low price tag makes it a top choice for designers since it is available in all shapes and sizes.



Swiss Blue Topaz in 18KT gold and oxidized silver post earrings \$900

8.34ct London Blue Topaz pendant with diamonds and mother of pearl in white gold \$1900

Swiss Blue Topaz in two tone gold ring \$875

7.8ctw Swiss Blue Topaz and 0.50ctw diamonds in Continuum scrollwork cuff \$2500

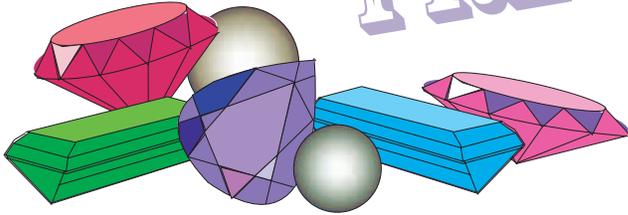


Veberod Gem Mine

Saturday, May 6 through Saturday May 13

Pick out your **FREE** cup of sand guaranteed to hold one gemstone ready to set!

FREE GEMSTONE!



Any time during May, have your free gemstone set for

30% OFF



Spring Special!

One strand of emerald beads with sterling silver clasp. 16-18 inch, 3-5mm diameter.
(five strands pictured)

\$90

Featured Jewelry



Pearl Earrings
Freshwater pearl drops on 14KT earwires - \$160



Diamond Cube Ring
Natural diamond cube in 14KT rose gold ring - \$690



Ruby Cab Ring
Opaque ruby cabachon in sterling silver ring - \$500