



GEMMOLOGICAL REPORT

**Report Number**  
23070004

**Colour**  
orangy-red

**Date**  
11 July 2023

**Species**  
Natural topaz

**Item**  
One faceted gemstone

**Variety**  
-

**Weight**  
64.17 ct

**Comments**  
This colour variety of topaz is also known as "imperial topaz" in the trade.  
See Appendix.  
See Information Sheet(s).

**Shape**  
pear-shape

Important notes and limitations on the reverse.

**Cut**  
modified brilliant cut

**Measurements**  
32.60 x 18.71 x 15.76 mm

**Transparency**  
transparent

  
Lidia Bellomo



  
Dr. Klaus Schollenbruch

INFORMATION SHEET  
to Report No. 23070004

Imperial topaz, origin not determinable

Topaz of gemstone quality is found in various places such as Brazil, Madagascar, Mozambique, Namibia, Nigeria, Sri Lanka, Russia, Ukraine, USA, Afghanistan and Pakistan.

The most sought-after areas are those that produce the highly valued Imperial topaz varieties with pink, violet, orange-red and orange colours. Imperial topaz is found in the Ouro Preto region in Minas Gerais, Brazil, in the southern Ural Mountains of Russia, and around the "topaz hills" of Katlang in Pakistan.

The oldest of these three sources is the Ouro Preto region in Minas Gerais, where the famous Imperial topaz occurs in orange to pink colours. The Ouro Preto deposits have been mined since the middle of the 18th century. Heat treatment at low temperatures was performed already then, turning the more yellowish and brownish colours into the much more attractive pink colours.

To date, Brazil is still by far the major producer of orange to pink Imperial topaz. Another famous source for pink topaz lies near the Sanarka river in the southern Ural Mountains of Russia. This deposit was first been described in the middle of the 19th century and produced attractive pink topaz. There is currently no known production from this mine.

The most recent find of pink topaz is in Katlang in Pakistan, which was only discovered in the second half of the 20th century. Generally, crystals from this area are smaller than the others, rarely exceeding 3 cm.

The gemmological, chemical, and spectroscopic properties of pink topaz from all three sources are very similar, making it impossible at present to determine the source with any accuracy.

INFORMATION SHEET  
to Report No. 23070004

Imperial topaz, treatment not determinable

The formation of gemstones and their uplift to the earth's surface is a long and often tumultuous process. The growth of a beautifully coloured crystal is a matter of rare and highly specific geological conditions, such as the availability of certain trace elements. Fissures and fractures induced by tectonic activities and/or the mining process might affect the transparency of the stone. Consequently, only a fraction of the discovered gems show the colour and transparency considered desirable and therefore marketable. The resulting undersupply of high-quality gemstones is in contrast with a large share of the mining yield having sub-optimal colour and/or transparency.

For centuries, mankind has found a way to overcome this challenge, by applying treatments to coloured gemstones such as various types of heating, irradiation or filling of fissures, fractures and cavities with transparent substances. These treatments intend to add or intensify a specific colour, to remove an undesirable hue, or to hide the presence of fissures and cavities. Treatments are important as they help satisfy the demand for high-quality gemstones. Most treatment methods are a standard practice and are accepted by the trade and the final customers.

However, a treated gemstone is not as rare as an untreated specimen of the same quality, and therefore the treated gem trades for lower prices than the pristine, natural beauty. Consequently, it is vital to disclose the presence or absence of a treatment in order to determine a correct price. For many years, gem labs are stating a treatment comment for certain coloured gemstones, namely rubies, sapphires and emeralds by default. However, treatments are also known on other types of coloured gemstones. The identification of such treatments in some types of gemstones is not always straightforward, sometimes even undeterminable, despite the use of sophisticated analytical methods and scientific research.

Imperial topaz is one such type of gemstones. While the colour does occur naturally in a small number of crystals, it can be induced by heating transparent topaz of a different colour at low temperatures. It is generally known that topaz may be exposed to heat treatment in order to improve the colour. The colour produced by this treatment is known to be stable. In spite of ongoing research to distinguish heated from unheated samples the colour authenticity of some imperial topaz remains undeterminable.

Information Sheets are intended to provide information supplementary to the contents of the Report and comment on, for instance, the type of gemstone, the geographic origin and the presence or absence of treatments. By definition, Information Sheets are purely informative in nature; they consist of a standard text and are issued for all types of stones of that particular category. Information Sheets, therefore, do not imply a certain quality or rarity of the stone described in the Gübelin Gem Lab Report which it is attached to.

A P P E N D I X

to Report No. 23070004

Topaz occurs in a variety of colours. The fiery hues of yellow to orange topaz, along with pink topaz, reached the European markets back in the 16th century, and soon became known as "Imperial topaz". These varieties have historically been prized above all.

The 64.17 ct orangy-red topaz described in the above mentioned Gübelin Gem Lab Report is one of these notable gems.

Its high clarity makes this topaz virtually eye-clean; an attribute rarely encountered in topaz of this size. It further displays a richly saturated and evenly distributed colouration as well as a pleasant shape and finely proportioned cut.

Such a combination of characteristics is very rare in natural topaz.

Gübelin Gem Lab, 11 July 2023

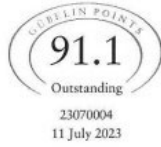


Lidia Bellomo



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GEMSTONE RATING



Variety:  
Topaz



Weight:  
64.17 ct

Scan QR-Code for more information



Gübelin Gem Lab  
Lucerne Hong Kong New York  
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