

Klinker, Precious Opal Deposit, Okanagan Area, British Columbia, Canada

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Opal deposits can be classified into two major categories "Volcanic-hosted" and "Sediment-hosted" (Paradis et al. 1999 a, b). The Klinker deposit, a "Volcanic-hosted" type, owned by Okanagan Opal is located approximately 10 km from Vernon within a paleo-basin that extends 150 km from the west side of Okanagan Lake to the East of Kamloops. Clast- and matrix- supported lahars and tuffs of Eocene or Miocene age host the deposit. The precious opal coexists with jelly opal, common opal and agate which occur as vesicle and fracture fillings over an area of 280 by 110 metres. Other fracture filling and alteration minerals spatially associated with precious opal are celadonite, amorphous manganese oxides, zeolites, jarosite, bentonite and other clays (Simandl et al., 1997). Doublet, triplet, solid, and boulder opal produced from the deposit are sold within British Columbia, and the market is steadily improving.

Although this deposit is hosted by volcanic rocks, the origin of this deposit is still not well understood. It is possible that the deposit is genetically related to the unconformity and past or present weathering activity rather than hydrothermal activity which is commonly believed to be responsible for the formation of precious opal in volcanic rocks.

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