
LARGE SMOKY QUARTZ CRYSTALS FROM THE WICHITA MOUNTAINS, OKLAHOMA

THOMAS R. POLK
University of Oklahoma, Norman*

Two quartz crystals, the largest so far reported from the State of Oklahoma, were found in the Wichita Mountains in the latter part of 1947. They were discovered during quarrying operations in the eastern end of the Government Quarry located in NE SW SE Section 26, T5N, R20W, approximately one mile southeast of Lugert dam in western Kiowa County. These crystals were donated to the Mineralogy Department at the University of Oklahoma by Mr. E. D. Jenner, superintendent of the quarry.

*Now with The Carter Oil Company, Tulsa, Oklahoma.

The two crystals (Figure 1) are of the smoky quartz variety, which are stained reddish brown by a coating of hematite. The larger crystal is 1 foot 5 inches long, 9 inches wide, and weighs approximately 75 pounds. It shows good prism faces and one end is terminated by rhombohedra. The other crystal is 1 foot long, 7 inches wide, weighs about 30 pounds, and has prism faces euhedrally terminated at one end by six large rhombohedral planes. There are many small distorted faces on the irregular base of both crystals which appear to be the result of secondary crystallization along fracture surfaces.

Miarolitic cavities containing smoky quartz crystals are fairly common in this area. Undoubtedly the crystals here described came from a large cavity of this type, although direct evidence of their mode of occurrence has been destroyed by quarrying operations. The rock in which they were found is a medium-grained, equigranular, pre-Cambrian granite known as the Lugert granite.

In addition, riebeckite, aegirite, calcite, botryoidal hematite, and solid hydrocarbon have been found in, or associated with such cavities in the same area. Minute crystals of columbite-tantalite also have been reported.

BIBLIOGRAPHY

- ANDERSON, K. C. 1946. The occurrence and origin of pegmatites and miarolitic cavities in the Wichita Mountain System, Oklahoma. (Unpublished master's thesis). University of Oklahoma.
- POLK, T. R. 1948. A study of the igneous rocks of the Devils Canyon Mountain group, Wichita mountains, Oklahoma. (Unpublished master's thesis.) Norman: University of Oklahoma.
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