What's in a Mineral Name?

How do minerals get their names? Before 1960 mineralogists would introduce new mineral names in papers they submitted to scientific journals. There was no one to check on the validity of these names, or whether they duplicated names already in use. In 1955 a compilation found 25,000 names used to designate 2,000 minerals. For example, the mineral we know as galena might also be called galenite, steinmannite, targionite, johnstonite, plumbo-cuprite or huascolite depending who you read.

In 1960, to reduce this chaos the International Mineralogical Society established the Commission on New Minerals and Mineral Names. Now when mineralogists believe they have found a new mineral, they send their data and proposed name to the Commission. If the Commission is convinced that the mineral has not been previously described and that the name is suitable, THEN the mineralogists may publish their data. This cuts down on confusion by keeping names out of print until there is enough data to prove conclusively that they refer to a mineral that hasn't been previously named. The procedures of the Commission are described in detail by Dunn and Mandarino (1988).

The Commission also works on problems with minerals named before 1960. For example, "sphene" and "titanite" refer to the same mineral. When I took mineralogy as a student, "sphene" was the name commonly in use. The commission found that "titanite" had been proposed first, hence "titanite" is now the approved name. Similarly celestine replaces celestite, although you may still see either name on mineral labels.

Why should this matter to rockhounds? For one reason, many rockhounds are proud of their specimens and like to have them labeled correctly. Also, proper names also allow us to communicate precisely. Some unoffical names can be confusing or even used unscrupulously. Some people, for example, do not realize "Herkimer diamonds" are really quartz. When in doubt about the correct name for a mineral, a rockhound should check in Mandarino and Back's Fleischer's Glossary of Mineral Species or on-line sources such as MInDat http://www.mindat.org/.

Since 1960, the Commission has approved over hundreds of new minerals, an average of over 43 per year. Most of these are rare and found only in tiny grains. Is there any chance mineralogists will run out of names? Possibly. For example, some workers wanted to honor a mineralogist Paul Moore by naming a mineral after him. But there was already a mooreite, so the new was named…paulmooreite. We also have minerals named jerrygibbsite, jimthompsonite, jeremejevite and joesmithite. As funny as these names may appear, they refer precisely to unique minerals, are substantiated by the Commission, and are accepted world-wide.

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References:

Dunn, P.J., and J. Mandarino, 1988, "The Commission on New Minerals and Mineral Names: Its History, Purpose and General Practice", Mineralogical Record, vol. 19 #5, p. 319-323.

Mandarino, J and M. Back, 2004, Fleischer,'s Glossary of Mineral Species -2004, Mineralogical Record Pub. Co., P.O. Box 355565, Tucson, Arizona, 85740, 309 p.