

crystallographic orientation from the latter, which remained after most of the pyrrhotite had been removed by supergene solutions. The removal of the pyrrhotite resulted in honeycomb (boxwork) residual masses of marcasite and pyrite with their inherited orientations. Goethite, variscite, wavellitë, vivianite, paravauxite, childrenite, and greenockite were deposited on a large scale by supergene solutions. These abundant phosphates were derived from apatite, a common gangue mineral in the richer veins. Mineralogically the deposit is of interest because of the exceptionally large and perfectly developed crystals of bismuthinite, stannite, wurtzite, wavellite, and vivianite, as well as for the several minerals belonging to the vauxite group. Few of these extraordinary specimens were preserved. Thorium-free monazite was abundant, as was greenockite in minute cyclic-twinned crystals. The sixty minerals were illustrated by 80 crystal drawings, 30 photographs and a number of maps. The composition of the minerals described was expressed by a combination of chemical and structural formula, for example: greenockite, $\alpha[\text{CdS}]_2[\text{C6mc}]$.

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DISCREDITED SPECIES

Collophane, Nauruite, Monite, Ornithite, Pyroclasite (=Francolite or Dahllite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 215-232 (1943).

Metabrushite, Stoffertite (=Brushite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 215-232 (1943).

Bismutosphaerite, Hydrobismutite, Basobismutite, Normannite (=Bismutite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 521-535 (1943).

Agricolite (=Eulytite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 536-540 (1943).

Rhagite (=Atelestite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 536-540 (1943).

Zeugite (=Martinite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 215-232 (1943).

Pyrophosphorite (=Whitlockite)

CLIFFORD FRONDEL. *Am. Mineral.*, **28**, 215-232 (1943).

DISCUSSION: Frondel shows that martinite and whitlockite give identical x-ray powder patterns and differ only in that martinite contains CO_2 and H_2O . He suggests that the name martinite be dropped. However, martinite (Kloos, 1888) not only has priority over whitlockite (1941), but the original description and the later observations of Larsen (1921) and of Hendricks, Hill, Jacob and Jefferson (1931) characterized the mineral well enough to justify the retention of the name martinite, even if a single name is to be used.

It is suggested that both names be retained; whitlockite to be restricted to $\beta\text{-Ca}_3\text{P}_2\text{O}_8$, martinite to be used for the corresponding mineral containing CO_2 and H_2O . Martinite would then bear the same relation to whitlockite as francolite does to fluorapatite.

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