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Company Report 1990

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The alteration envelopes around the veins comprise massive grey potassium-feldspar and light green sericite in the vein walls, grading outward to biotite and chlorite. The veins are also flanked by a distinctive zone of 1-2 cm thick quartz pyrite stringers lying parallel to the vein, which give way to disseminated pyrite in weakly altered host rocks. Epidote alteration is common in the vicinity of the deposit, is postdeformational and is transgressive across lithologic boundaries. It occurs where an abundance of calcite permits the formation of epidote, rarely even in feldspar porphyry units.

The ore minerals are electrum and gold, occurring in quartz and on sulphide grain boundaries. The Ag:Au ratio is 2:1. Trace amounts of argentite, pyrargyrite, stephanite and tetrahedrite have been observed in addition to the more common sulphide minerals noted above. Deformation-related fractures, which postdate both the major K-feldspar alteration and emplacement of the sulphide-quartz veins, host most of the higher-grade gold-quartz mineralization.

During 1989, the Johnny Mountain mill produced 46,400 ounces of gold, 74,100 ounces of silver and 1,300,000 pounds of copper from 100,300 short tons of ore. Thirty percent of the gold recovered was by gravity separation methods and sold as dore. The remaining seventy percent of the gold recovered was with a chalcopyrite froth flotation concentrate.