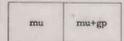
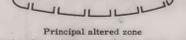
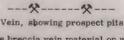
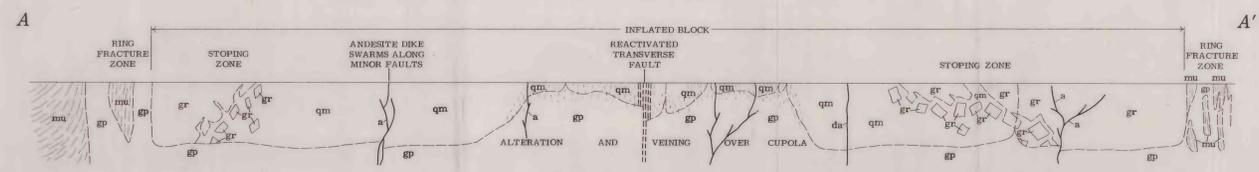


EXPLANATION

-  **Dacite**  
Glassy quartz and feldspar phenocrysts in an aphanitic brown to reddish-brown matrix. Two well defined nearly east-trending dike systems
-  **Andesite**  
Dark-gray, aphanitic to weakly porphyritic dike rocks; most common as dike swarms along major fracture paths
-  **Vein quartz**  
Milky-white to colorless euhedral crystals of quartz filling fractures 1 cm to more than 1 m wide; open comb structure common. Veins most numerous along the central west-northwest-trending fracture system and particularly along the east-trending offshoot of this fault in the middle of the central ring structure
-  **Pegmatite**  
Small round to elongate masses containing cleavelandite around quartz cores. Mapped in the southeast part of the central ring structure, but probably more common beneath quartz masses; mapped along southern boundary of ring structure
-  **Quartz-rich granite**  
Dikes and sills of pink, medium-grained quartz-rich biotite granite that form the outer ring and are fairly common near the more altered areas in central part of the structure. Characterized by equigranular texture and round, clear quartz grains
-  **Rhyolite**  
Dikes of pink, fine-grained muscovite or biotite-muscovite granite. Most common near dikes of quartz-rich granite with which they merge
-  **Quartz masses**  
Rounded masses of glassy, milky quartz, usually as low white knobs strewn with chunks of quartz. Probably the surface expression of pegmatites along southern boundary of ring structure
-  **Mylonite**  
Crushed granite, recognized only in eastern part of central ring structure where it is not obliterated by dikes, alteration, or veining
-  **Quartz monzonite**  
Light-gray, weakly foliated, equigranular biotite-quartz monzonite forming core of ring structure and a lobe east of the structure. Contact with surrounding porphyritic granodiorite is a zone of quartz monzonite dikes enclosing rectangular blocks of porphyritic granodiorite. Unit is host to most of the alteration along the central shear zone
-  **Aplite**  
White, granular to foliated fine-grained dikes of biotite granite and apatite, common in the vicinity of the central quartz monzonite mass. Only the larger and more conspicuous dikes have been mapped
-  **Porphyritic granodiorite**  
Dark-gray, well-foliated, coarse-grained, biotite-rich granodiorite with conspicuous, oriented phenocrysts of potassium feldspar, generally 1-2 cm across. Forms outer part of central mass of ring structure. Contact with diorite west and north of the structure is gradational through a zone of diorite with feldspar phenocrysts
-  **Diorite**  
Gray to purplish-gray, porphyritic to equigranular, medium-grained hornblende-plagioclase rock. Compositional range probably from gabbro to granodiorite
-  **Diorite and gabbro**  
Dark-gray or mottled hornblende-plagioclase rock; tabular to irregular masses within the central ring structure
-  **Murdama Group**  
Dark-gray to black sedimentary and mafic igneous rock horizons that form the host rocks to the ring structure. Nearly vertical, intensely sheared, and metamorphosed on north-south edges of the ring structure where an intricate mesh of metasedimentary rocks and sills of quartz-rich granite (mu+gp) cannot be resolved at map scale. Gneiss dips predominate in the south where less metamorphosed sedimentary rocks ranging from conglomerate to shale are interleaved with sills or flows of diorite
-  **Contact**  
Dashed where approximately located or inferred
-  **Principal altered zone**  
Brown, shattered rocks, mostly derived from the quartz monzonite. Argillitic and siliceous alteration where most intense and extends into the porphyritic granite as mylonitic seams accompanied by porphyritic alteration. Rhyolite, quartz-rich granite dikes, and quartz veins are most abundant in this zone. Fracture surfaces are locally coated by oxides or carbonates of iron, manganese or copper. The major alteration appears to have occurred before the andesite dikes and quartz veins were emplaced and after emplacement of the quartz monzonite
-  **Vein, showing prospect pits**  
Quartz-carbonate breccia vein material on waste piles along trench from ancient mine. Vein material and adjacent surficial debris rich in lead, zinc, and silver



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