

MEMORANDUM REPORT TO LEO H. SAARELA  
COMMISSIONER OF MINES, ON THE LEROY  
MINE, GLACIER BAY, ALASKA

The Leroy Mine was visited on August 9-10, 1950 by Howard M. Fowler, Associate Mining Engineer for the Territory of Alaska, Department of Mines. The visit was made primarily to map the ore structure and to lend the technical assistance of the Department of Mines to the owner of the property.

The Leroy Mine is located about midway between the Lamplugh and Reid Glaciers in Glacier Bay. The property is about one mile from the beach and at an elevation of 950 feet.

Development work at the mine consists principally of 3 main tunnels totaling about 600 feet. In the upper and lower Leroy Tunnels the vein is cut off by what appears to be a large black dike. However, specimens of the material have been tentatively identified by Mr. A. E. Glover, Territorial Assay Office, Ketchikan, Alaska, as a black argillite. This would indicate that the black rock type was either a part of a small roof pendant, or, what is more probable, an inclusion from the country rock present prior to the dioritic intrusion. Surface indications were poor due to a mantle of glacial till and slide rock; however, outcroppings of the argillite (?) appeared to have no continuity and examination did not disclose any evidence of the Leroy Vein structure on the opposite side of the argillite (?).

The Leroy Vein is roughly paralleled by a narrow green-gray dike that breaks from wall to wall. Most of this dike is not now in evidence because of its having been removed during stoping operations or covered by timber. However, it may have served as the source of enrichment for the Leroy Vein. The vein itself ranges from about 12 inches to 4.5 feet in width. The mill feed recovery has varied from about 80 dollars a ton to 135 dollars a ton.

The vein has been completely stoped out above the lower Leroy Tunnel. However, the ore shoot continues below the lower tunnel level, and, except for a very small tonnage, has not been removed. In order to tap the extension of this ore with a lower level, approximately 350 feet of drift must be driven.

Approximately 200 feet to the west of the Leroy lower portal, a 160 foot tunnel has been driven on a nearly parallel structure to the Leroy vein. A 3 inch to 6 inch vein was exposed in the tunnel face. A sample cut on this vein assayed 0.24 oz. gold and a trace in silver. It has since been reported that a raise driven approximately 80 feet on this

structure, after the writer's visit, disclosed that the vein widened to three feet and assayed about 50 dollars in gold and silver. No evidence of this structure is apparent on the surface.

Respectfully submitted,

Howard M. Fowler  
Associate Mining Engineer