

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File - Target Concepts for the Rosebud Project
AUTHOR	C. Muerhoff; C. Wineteer
DATE OF DOC(S)	1995
MULTI_DIST Y / N?	
Additional Dist. Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project Rosebud Mining Co.
COMMODITY If not obvious	gold; silver
NOTES	correspondence; geology 2p 4

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS: DD 6/5/08
Initials Date

DB: rich 7/08
Initials Date

SCANNED: NV Blue
Initials Date

TARGET CONCEPTS FOR THE ROSEBUD
PROJECT. C. WINETEER, 1995

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HECLA MINING COMPANY
ROSEBUD PROJECT

August 8, 1995

Memo to: Charlie Muerhoff

From: Craig B. Wineteer

Subject: Target Concepts for the Rosebud Project

As per your request, I have jotted down some ideas on the Rosebud Project exploration targets. Originally, I had hoped to discuss in detail individual exploration targets and stratigraphic units. Unfortunately, due to ever decreasing available time, you are receiving a scaled-down, summary version.

The concepts and conclusions presented here are largely based on observations gathered during logging of core from the South Zone ore body, construction of 50 scale geologic cross-sections through the Rosebud Deposit, and 100 scale plan projection compilation maps. Information pertaining to the district geology was assimilated from Lac Mineral internal reports, published reports, and limited personal field work.

Summary "Rocks remain the same, interpretations change."

Distribution and deposition of precious metals in the Rosebud Deposit epithermal system was governed by stockwork structural preparation of favorable host-rock lithologies. Brittle deformation of siliceous rhyolitic flows, tuffs, and tuff breccia's resulted in high density fracturing and subsequent high permeability. Favorable host-rocks also include stratigraphic units with inherent permeability and/ or brittle deformation characteristics, such as quartz-rich clastic sediments (Tbs and JTra).

Brittle lithologies display wide-spread, highly zoned hydrothermal alteration, with localized cores of gold-silver mineralization. Clay-rich water lain epiclastic sediments, ash-flow tuffs, and lithic tuff breccia's of the Bud and Tos (formally) responded to tectonic movement in a plastic or ductile manor and remained relatively impermeable to low-temperature hydrothermal fluids.

Structural preparation of favorable host-rock lithologies (Chocolate, LBT, Dozer, Tbs, and JTra) is on E-W, N-S, and NE-trending structural fabrics. Low-angle structures are essential to mineralization in the South, East, and North Zones, and South East and Far East Targets.

Precious metal mineralization in the Rosebud Deposit and proximal target areas is hosted by Tertiary volcanic and clastic rocks and probably by Jurassic-Triassic metasedimentary rocks. High-angle, northwest-trending (N55E) basement structures provided the conduits for mineralizing fluids. Bonanza precious metal and precious-base metal mineralization is postulated to lie at depth below the Rosebud Deposit. The juncture of favorable host-rock lithologies and NW-trending basement structures is believed to be biaxial and will display vertical mineral zonation similar to the lateral zonation expressed within the Hycroft-Chance-Dreamland-Rosebud-Scossa-Majuba Hill northwest mineral-trend.

Hope the drilling program is underway and you are experiencing monumental success. Best regards to you and the Rosebud gang.

Sincerely,

A handwritten signature in cursive script, reading "C.B. Wineteer", with a long horizontal flourish extending to the right.

Craig B. Wineteer