Occurrence Details

Occurrence Number: 105A 053
Occurrence Name: Sa Dena Hes-East Zone
Occurrence Type: Hard-rock
Status: Deposit
Date printed: 4/29/2025 6:00:20 AM

General Information

Primary Commodities: lead, silver, zinc
Aliases: Jewel Box, Mt. Hundere, Sa Dena Hes
Deposit Type(s): Skarn
Location(s): N - W
NTS Mapsheet(s): 105A10
Location Comments: Location digitized from map in AR062257
Hand Samples Available: No
Last Reviewed:

Capsule

At Mt Hundere, several high grade zinc-lead-silver replacement zones occur along contacts between Lower Cambrian limestone and phyllite.
Beneath Jewelbox Hill, the Upper and Lower mineralized replacement zones form lensoid bodies 1 to 15 m thick in two sheared, brecciated limestone layers with locally developed cavernous porosity. A chimney of high grade mineralization connects the Upper and Lower replacement zones. Other mineralization is contained in the Main zone, the East zone and the Gribbler zone, as well as in the Attila and Burnick zones beneath North Hill. Zinc to lead ratio is 2:1 in all zones except the Burnick, where it is 30:1. Based on drilling up to May 1990, the average grade is estimated at about 16.6% combined Zn-Pb.
On Jewelbox Hill the main ore type consists of coarse actinolite-diopside-quartz-andradite skarn with massive sphalerite and galena. Copper-iron skarns and replacement bodies containing magnetite, chalcopyrite, pyrrhotite and minor pyrite and hematite also occur locally. The highest silver values on the property come from prograde diopside-rich skarn on the east side of Jewelbox Hill. Two vertical, ENE trending faults filled with quartz-fluorite breccia occur near the ore, and some fluorite extends into the ore.
The structure of Jewelbox Hill is very complex. It is dominated by a flat lying, limestone/ marble unit, the "Main Limestone", approximately 100m thick. This carbonate unit pinches out toward the east in the subsurface. The Main Limestone interfingers complexly with phyllite in the pinch out area. A second carbonate of unknown stratigraphic correlation, the "FW Limestone", forms a steeply dipping layer just east of the Main Limestone pinch out. This is interpreted to be the steep limb of an easterly inclined second phase fold with axial trend 035 degrees. Another limestone, possibly equivalent to the FW Limestone occurs below the Main Limestone.
Steeply dipping faults and fracture zones trending 090 deg to 110 deg are important at Jewel Box Hill and appear to control many of the zones. The Sump Fault exposed near the portal trends north-south and the Fluorite Fault, between Jewel Box Hill and Gribbler Ridge. Both these structures may be feeders to the Jewel Box Hill ores. The Sump Fault appears to drop calcareous phyllite down significantly on its east side so that the favourable Main Limestone would be expected at depth if is has not lensed out completely in that direction.
The mineralization at Mt Hundere is epigenetic and is believed to be the product of retrograde thermal metamorphism related to a buried intrusion inferred from the presence of a dome-shaped uplift in the Mt Hundere area (Abbott, 1977). The only igneous rocks outcropping on the property are quartz-albite porphyry dykes. D. Sinclair obtained a 50 Ma K/Ar age from one such dyke on North Hill.
Cominco's 1999 Annual Report lists a proven and probable reserve (pre-NI 43-101) of 1.3M tonnes grading 10.1% Zn and 2.3% Pb and a MEASURED+ INDICATED resource of 0.7M tonnes grading 11.9% Zn and 4.6% Pb.
Teck Cominco's 2003 to 2005 Annual Reports lists an INDICATED resource of 2.19M tonnes grading 10.4% Zn and 2.6% Pb. Later reports do not list the property.

Work History

Date	Work Type	Comment
12/1/1990	Drilling	
12/1/1988	Drilling	
12/1/1986	Drilling	
12/1/1986	Geochemistry	
12/1/1986	Development, Surface	
12/1/1985	Drilling	
12/1/1985	Geochemistry	
12/1/1984	Geochemistry	
12/1/1984	Geochemistry	
12/1/1982	Studies	
12/1/1982	Drilling	
12/1/1982	Lab Work/Physical Studies	
12/1/1981	Drilling	
12/1/1981	Other	
12/1/1981	Geochemistry	
12/1/1981	Geology	
12/1/1980	Studies	

12/1/1979	Geochemistry	
12/1/1979	Drilling	
12/1/1979	Trenching	
12/1/1979	Geology	
12/1/1966	Trenching	
12/1/1966	Geochemistry	
12/1/1966	Geology	
12/1/1963	Drilling	
12/1/1963	Other	

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC000393	Report - Sa Dena Hes Mine		Property File Collection	Report