Occurrence Details

Occurrence Number: 105B 152
Occurrence Name: Gem Lake North
Occurrence Type: Hard-rock
Status: Showing
Date printed: 12/16/2025 4:58:55 PM

General Information

Secondary Commodities: tin
Deposit Type(s): Vein and Greisens Sn
Location(s): 60°12'43.26" N - -131°38'30.26" W
NTS Mapsheet(s): 105B04
Location Comments: Based on location of rock sample 67614 (AR 090778)
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as part of a large block of DU claims (1-239, YA28903) between June and Jul/78 by the Klinkit Joint Venture (DuPont of Canada Exploration Limited & Duval International Corporation), which explored with detailed geological mapping and soil sampling to the west in 1978 and soil sampling in 1979.

The DC Syndicate (Dome Mines Limited & Cominco Limited) tied on Zinc cl 1-16 (YA33021) to the west in Jun/78. In 1981, rock sampling at the occurrence and a ground magnetic survey and grid soil survey west of the occurrence were carried out. In 2006, the Seagull claims were staked over the occurrence and rock sampling was carried out. In 2012, widespread rock sampling across the Seagull Batholith took place, although none were taken at the occurrence. In 2014, an airborne magnetic and radiometric survey covered almost the entire Seagull Batholith. In 2018, the area was restaked as the JC 1-101 claims and an airborne magnetic and radiometric survey was flown over the property.

Capsule Geology

This occurrence lies within a belt of Yukon-Tanana Terrane rocks. This belt of rocks is part of an accreted island arc assemblage consisting of biomodal volcanics, coeval plutons and sedimentary rocks, as well as younger Jurassic intrusive rocks and overlap assemblages and Cretaceous intrusions. The occurrence is hosted in mid-Cretaceous Seagull Batholith quartz monzonite.

The occurrence is located along a rock sampling traverse line at the north end of "Gem Lake". In 1981, chip sampling was undertaken on manganese-stained fracture zones in the quartz monzonite. The zones contain quartz and tourmaline, fluorite(?) and small amounts of pyrite, sphalerite, galena and arsenopyrite. The best value was sample 67614, which assayed >1000 ppm Sn over 0.9 m. In 2006, sampling of quartz veins in granite in the area did not uncover anomalous values, but soil sampling confirmed a historic tin-in-soil anomaly. Grid soil sampling in 2006 outlined an approximately 900 m x 900 m area as defined by a 20 ppm Sn threshold. Almost half the samples assayed greater than 100 ppm Sn and the anomaly is open in all directions.

Soil sampling in the area in 1979 gave very high values for Sn, but these values were determined using a portable XRF analyzer, and were later deemed unreliable.

Work History

Date	Work Type	Comment
12/13/2018	Airborne Geophysics	
12/13/2018	Airborne Geophysics	
12/13/2014	Airborne Geophysics	
12/13/2014	Airborne Geophysics	
12/13/2006	Geochemistry	
12/13/1981	Geochemistry	
12/13/1981	Geochemistry	Grid soils west of the occurrence
12/13/1981	Ground Geophysics	west of the occurrence
12/13/1979	Geochemistry	
12/13/1978	Geology	mapping to the west
12/13/1978	Geochemistry	soil sampling to the west
12/13/1978	Other	staked

Related References

Number	Title	Page(s)	Reference Type	Document Type

2004-2	Bedrock Geology, Dorsey Lake (NTS 105B/4), southern Yukon (1:50,000 scale)		Yukon Geological Survey	Open File (Geological - Bedrock)
YEG1999_11	Wolf Lake project: Revision mapping of Dorsey Terrane assemblages in the upper Swift River area, southern Yukon and northern B.C.		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper