



Occurrence Details

Occurrence Number: 105L 081
Occurrence Name: Snail Zone 2
Occurrence Type: Hard-rock
Status: Anomaly
Date printed: 6/16/2025 2:39:07 AM

General Information

Primary Commodities: antimony, arsenic, copper, gold, indium, lead, silver, tin, zinc
Secondary Commodities: molybdenum
Deposit Type(s): Unknown
Location(s): N - W
NTS Mapsheet(s): 105L09
Location Comments: Location from map in AR 096421
Hand Samples Available: No
Last Reviewed:

Capsule

The Snail property is situated in the west-central part of Selwyn Basin, a tectonic element comprising deep water clastic rocks, chert and minor carbonate accumulated along the North American continental margin during Paleozoic time. The basin is bound to the northeast by a shallow carbonate platform (Mackenzie Platform), which formed the near-shore facies of ancient North America (Abbott et al, 1986).

The property is underlain by an arcuate thrust fault that separates Rabbitkettle Formation rocks in the south from younger sedimentary and volcanic rocks to the north. A second, southeast-northwest trending thrust fault crosses the northeast corner of the property and separates Earn Group in the southwest from Mount Christie Formation to the northeast. The Tintina Fault is a major strike-slip fault and is located approximately 22 km southwest of the property.

In the northwestern part of the property several east-northeast trending diorite dykes cut a beige chert horizon of Earn Group (Hulstein, 1982). Rocks of this type are not typically found in Earn Group and the bleached, cherty appearance may be due to hydrothermal sericitization and silicification.

The Carboniferous to Permian Mount Christie Formation is the youngest stratified Unit in this area. It is dominantly made up of maroon and black ribbon chert that sits conformably on top of the Tay Formation and undifferentiated Earn Group. The Tay Formation comprises light grey weathered, fossiliferous limestone and calcareous siltstone with rare light grey, medium-grained arenite beds. The Earn Group is a variable package of coarse-clastic rocks with minor fine-grained calcareous siltstone and sandstone and one distinct bed of black chert that is approximately 50 m thick. The coarse clastic sections are dominated by chert-pebble conglomerate and coarse-grained chert arenite.

Sitting conformably below the Earn Group is a blocky, buff weathered, grey quartz-rich siltstone that has distinct wavy laminations. This unit is strikingly similar to sections of the Road River Group mapped further southeast and therefore has been assigned to the Road River Group.

A light grey-green weathered, volcanic breccia and tuffaceous siltstone crop out all along the northern edge of the mapped area. This unit has been assigned to the Mississippian volcanics that sit in upper part of the Earn Group stratigraphy based on regional maps for this area.

A thrust fault is inferred between these rocks and the adjacent Road River Group. The oldest exposed rocks in this area have been grouped with the Upper Cambrian to Lower Ordovician Rabbitkettle Formation. Where exposed they comprise light green weathered, laminated and thin bedded, very fine-grained tuffaceous siltstone; grey-brown and dark grey, laminated and thin bedded quartzose siltstone; light grey to white massive quartzose siltstone with a sugary texture.

A northeasterly elongated granodiorite body is exposed in the center of the detailed map area. This body is approximately 2500 m long and ranges from 150 to 600 m wide. Several other smaller dykes branch off from the main body but none of them can be traced for more than 600 m. Sedimentary rocks along the northern edge of the granodiorite body are altered to striped maroon and beige hornfels.

Carlson (1981) describes showings of small, massive to disseminated pyrrhotite zones with associated chalcopyrite and locally significant galena and sphalerite. The host rock is often argillite within the lower to middle part of Road River Group.

Mineralization in the northwest part of the Snail property was described by Hulstein (1982) as arsenopyrite and galena in quartz veins that average 20 cm in width. The veins were traced up to 20 m along strike and occur within beige chert.

Work History

Date	Work Type	Comment
5/1/2014	Geochemistry	
5/1/2014	Geology	
5/1/2014	Other	
5/1/2012	Geochemistry	
5/1/2012	Other	
5/1/2011	Geochemistry	
5/1/2011	Geochemistry	
5/1/2011	Other	
5/1/1983	Geochemistry	
5/1/1983	Geology	

Related References

Number	Title	Page(s)	Reference Type	Document Type
1986Abbott	Setting of Stratiform, Sediment Hosted Lead-Zinc Deposits in Yukon and Northeastern British Columbia		Canadian Institute of Mining and Metallurgy	Paper

