Occurrence Details

Occurrence Number: 106D 096
Occurrence Name: Reid
Occurrence Type: Hard-rock
Status: Showing
Date printed: 12/16/2025 3:20:00 PM

General Information

Secondary Commodities: bismuth, copper, gold, silver
Deposit Type(s): Iron Oxide Breccias & Veins (Wernecke Breccias)
Location(s): 64°53'29" N - -134°7'53" W
NTS Mapsheet(s): 106D16
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

In Jul/93 the Reid cl 1-4 (YB22347) were staked by Pamicon Developments Ltd to protect an area where anomalous rock samples were taken in the fall of 1992. After preliminary evaluation of the newly discovered Reid showing, Pamicon added Reid 5-104 (YB22521) in July and Oct/93. In Sept/93 Newmont Exploration Ltd flew an airborne magnetometer and radiometric survey on 1000 m spaced lines flown north-south. Pamicon also performed limited geological mapping and lithogeochemical sampling in 1993. In Jan/94 the Reid claims were transferred to Westmin Resources Ltd which then formed the Fairchild Joint Venture with Newmont. In Jun/94, Pamicon and Equity on behalf of the joint venture explored the occurrence in detail with geological mapping, prospecting, stream sediment sampling and contour soil sampling. In 1995 Pamicon and Equity continued exploration with most of their efforts focused on further delineating the previously discovered Reid showing and on exploring the southcentral and southeast portions of the claim block. The final Reid claims lapsed at the end of Dec/98. Restaked as AF cl 1-96 (YC47634) in Apr/2006 by Fronteer Development Group Incorporated. Earlier in Jan/2006 Fronteer (80%) and Rimfire Minerals Corporation (20%) signed an agreement with Newmont Exploration Canada Ltd and NVI Mining Ltd (which bought Westmin's assets) to purchase all claims and exploration data relating to 700 mineral claims owned by the Fairchild Joint Venture in the Wernecke Mountains, Yukon. Fronteer Development was appointed operator of the project. In the summer of 2006 Fronteer Development carried out an airborne gravity survey over their entire claim holdings and carried out limited prospecting and rock and soil sampling on the AF claims.

Capsule Geology

The region is underlain by a metamorphosed and altered sequence of Lower Proterozoic Wernecke Supergroup clastic and carbonate rocks (Fairchild Lake Group, Quartet Group and Gillespie Lake Group, from oldest to youngest) that are intruded by Early to Middle Proterozoic mafic sills and dykes, and cut by Middle Proterozoic Wernecke Breccia. To the east, Wernecke Supergroup rocks are unconformably overlain by Middle Proterozoic Pinguicula Group rocks. According to Thorkelson (2000), Wernecke Breccia development is best modeled as a set of hydrothermal and/or phreatic breccias; brecciation being caused by explosive expansion of volatile-rich fluids. Hunt (2005) attributed Wernecke Breccia formation to periodic over-pressuring of dominantly basinal fluids, which lead to repeated brecciation of host strata and mineral precipitation. Prominent northwest-striking faults may have controlled the emplacement of the breccias.
The occurrence is located approximately 13 km northeast of the Bear Creek airstrip, on the east bank of the middle branch of a northerly flowing unnamed creek which empties into the Bonnet Plume River. The area was regionally mapped by L. Green (1972) of the Geological Survey of Canada in 1961 as part of a helicopter-supported party known as Operation Ogilvie. The area was remapped as part of a larger bulletin by D. Thorkelson (2000) who was under contract with Exploration and Geological Services Division (now part of the Yukon Geological Survey). In addition Thorkelson worked closely with geologists employed by Westmin Resources which held a large number of claims in the region. The work of these geologists was incorporated into a geological compilation of the Yukon released by Gordey and Makepeace of the Geological Survey of Canada in 2003.
The Reid claims were staked to cover magnetic anomalies detected by Newmont Explorations geophysical survey. Follow-up work uncovered the Reid showing which consists of chalcopyrite-pyrite-bearing quartz-carbonate veins in Lower Proterozoic Gillespie Lake Group black siltstone and shales. The veins trend 350 degrees, and have been traced along strike for 100 - 400 m and appear to be structurally controlled. Initial chip samples of the highest mineralized portion of the showing returned values up to 5.42% copper, 11.0 ppm silver 1 314 ppm bismuth and 60 ppm gold.
Follow-up work in 1994 focused on determining the strike length and style of mineralization associated with the Reid showing. Specimens of vein material containing massive fine grained magnetite and lesser amounts of pyrite and hematite generally returned relatively low assay values. Float samples of quartz-carbonate altered Fairchild Lake Group rocks collected north of the veins returned values of up to 280 ppb gold and 3.39% copper however no substantial area of mineralization was discovered.
Fronteer Development's exploration program was reconnaissance in nature and was carried out to confirm results reported earlier by the Fairchild Joint Venture.

References

EQUITY ENGINEERING LTD, Feb/95. Assessment Report #093261 by K.A. Owerko.

FRONTEER DEVELOPMENT GROUP INCORPORATED AND RIMFIRE MINERALS CORPORATION, Apr/2007. Assessment Report #094956 by R.S. Hefferman, R. Black, H. Awmack and D. Baker.

FRONTEER DEVELOPMENT GROUP INC. News Releases, 19 May/2006, 10 Jul/2006.

FRONTEER DEVELOPMENT GROUP INC. March/2009. Web Site: www.fronteergroup.com. (contains 2007 Wernecke Exploration report).

GREEN, L.H. 1972. Geology of Nash Creek, Larsen Creek and Dawson Map-Areas, Yukon Territory. Geological Survey of Canada, Memoir 364.

GORDEY, S.P. AND MAKEPEACE, A.J., 2003. Yukon Digital Geology, version 2.0, S.P. Gordey and A.J. Makepeace (comp); Geological Survey of Canada, Open File 1749 and Yukon Geological Survey, Open File 2003-9 (D).

HUNT, J., 2005. The geology and genesis of iron oxide-copper-gold mineralization associated with Wernecke Breccia, Yukon Canada, PhD thesis, James Cook University, Australia, 2 volumes, 120 p.

PAMICON DEVELOPMENTS LTD, Feb/94. Assessment Report #093170 by M.A. Stammers.

THORKELSON, D.J., AND WALLACE, C.A., 1993a. Development of Wernecke Breccia in Slats Creek (106D/16) map area, Wernecke Mountains, Yukon. In: Yukon Exploration and Geology

1992, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 77-87.

THORKELSON, D.J. AND WALLACE, C.A., 1998. Geological Map of Slats Creek map area, Wernecke Mountains, Yukon (106D/16). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Geoscience Map 1998-9, 1:50,000 scale.

THORKELSON, D.J. AND WALLACE, C.A., 2000. Geology and mineral occurrences of the Slats Creek, Fairchild Lake and "Dolores Creek" areas, Wernecke Mountains, Yukon (106D/16, 106C/13, 106C/14). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Bulletin 10, 73 p.

WESTMIN RESOURCES LTD, Dec/95. Assessment Report #093378 by M.I. Jones.

YUKON EXPLORATION AND GEOLOGY 1985, p. 195; 1995, p. 12, 16; 2006, p. 34.

Work History

Date	Work Type	Comment
12/31/2006	Geochemistry	Limited in scope.
12/31/2006	Geochemistry	Limited in scope.
12/31/2006	Other	Limited in scope.
12/31/1995	Geochemistry	
12/31/1995	Geology	
12/31/1995	Other	
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/31/1994	Geochemistry	
12/31/1994	Other	
12/31/1993	Geochemistry	
12/31/1993	Airborne Geophysics	Also radiometric survey.
12/13/2006	Airborne Geophysics	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095646	2007	2007 Geological, Geochemical and Geophysical Report on the Werneckes Project	Diamond - Drilling, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Scintillometer - Ground Geophysics, Prospecting - Other, Backhoe - Trenching, Hand - Trenching, Handblast - Trenching	28	6537.96
094956	2006	2006 Geological, Geochemical and Geophysical Report on the Werneckes Project	Reverse Circulation - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Scintillometer - Ground Geophysics, Prospecting - Other		
093378	1995	Geological and Geochemical Assessment on the Reid 1-104 Claim Group	Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
093261	1994	1994 Geological and Geochemical Assessment Report on the Mica 1-52,Hail 1-18 and Reid 1-104 Claim Group	Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
093170	1993	Geological, Geochemical, and Geophysical Report on the Mica-Hail, Ursus, TVA & Reid Claims	Rock - Geochemistry, Bedrock Mapping - Geology, IP - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other		
091456	1983	Exploration, 1982, Gold, Silver and Uranium Deposits, Glacier Lake Region	Rock - Geochemistry, Silt - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, Scintillometer - Ground Geophysics, Petrographic - Lab Work/Physical Studies, Prospecting - Other, Hand - Trenching		
090868	1980	Exploration Report-Year 1980 on the Bear River Properties	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Gamma-ray Spectrometry - Ground Geophysics, Prospecting - Other, Hand - Trenching, Handblast - Trenching		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC007821	Map - Reef Project		Property File Collection	Geochemical Map