



Occurrence Details

Occurrence Number: 106C 076
Occurrence Name: Otter
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 4/29/2025 4:12:36 PM

General Information

Secondary Commodities: cobalt, copper, gold, nickel, silver, uranium
Deposit Type(s): Iron Oxide Breccias & Veins (Wernecke Breccias)
Location(s): 64°59'10" N - -133°48'2" W
NTS Mapsheet(s): 106C13
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as the Otter cl 1-4 (YA15886) in Aug/77 by Mountaineer Mines Ltd and optioned to Pan Ocean Oil Ltd, which added Otter cl 5-36 (YA38210) in Sep/78, Otter cl 37-88 (YA40567) in Aug/79 and Otter cl 89-124 (YA41306) in Oct/79. The company conducted mapping, geochem sampling and radiometric surveys in 1978 and 1979, and drilled 4 diamond drill holes (603 m) in 1979. In 1980 Pan Ocean added Vole cl 1-43 (YA41955) to the north and drilled 4 diamond drill holes (140 m) on the Otter group and 4 holes (340 m) on the Vole group. The Otter 1-40 cl (YB42249) were restaked adjacent to the Slab claim block in Oct/93 by a joint venture consisting of Pamicon Developments Ltd, Equity Engineering Ltd and Westmin Resources Ltd. The joint venture group transferred 100% interest in the Otter claims to Westmin Resources Ltd. in Jan/94. In early 1994 Westmin entered into a joint venture with Newmont Exploration Ltd and in June they contracted Pamicon and Equity to carry out soil and stream sediment sampling, rock geochemistry and limited geological mapping on the Slab cl 209-212 (YB22343) and Otter cl 1-40 (YB42249). As part of their exploration program on the Fair claims, Pamicon carried limited mapping and rock sampling on Otter cl 34-40. In Jul/95 Westmin staked Beav cl 1-4 (YB6442) 5 km to the north on map sheet 106F 04.

Capsule Geology

The region is underlain by a metamorphosed and altered sequence of Early 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 overpressuring of dominantly basinal fluids, which lead to repeated brecciation of host strata and mineral precipitation. Three vein clusters occur along a 4 km long northeast-trending shear zone that cuts Lower Proterozoic Fairchild Group limy argillite near a small body of Wernecke Breccia. The vein clusters are called Otter, Otter A and Otter B. Individual veins, which are up to 30 m long and 5 m wide, strike northeast, dip northwest (in the south) and contain cobaltite, chalcopyrite, pyrite and arsenopyrite in a carbonate gangue. Wall rocks contain disseminated sulphides. A 9 m intersection assayed 0.2% cobalt and 0.5% copper and the best intersection assayed 0.6% cobalt and 1.1% copper. The breccia body contains minor brannerite, and a specimen assayed 4.8% cobalt, 0.2% nickel, 0.007% uranium oxide (U₃O₈), 0.34 g/t silver and 0.062 g/t gold.

References

EQUITY ENGINEERING LTD, Dec/94. Assessment Report #093218 by K.A Owerko and D.A. Caulfield.

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 mineralisation associated with Wernecke Breccia, Yukon Canada, PhD thesis, James Cook University, Australia, 2 volumes, 120 p.

MINERAL INDUSTRY REPORT 1978, p. 11.

PAN OCEAN OIL LTD, Jun/80. Assessment Report *#090621 by J.F. Touborg et al.

PAMICON DEVELOPMENTS LTD. Jan/96. Assessment Report #093224 by M. Stammers.

MOUNTAINEER MINES LTD and PAN OCEAN OIL LTD, Sep/78. Assessment Report *#090376 by C.K. Ikona, M. Stammers and R.B. Yorston.

THORKELSON, D.J. AND WALLACE, C.A., 1994. Geological Setting of mineral occurrences in Fairchild Lake map area, (106C/13), Wernecke Mountains, Yukon. In: Yukon Exploration and Geology, 1993, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 79-92.

THORKELSON, D.J. AND WALLACE, C.A., 1998. Geological Map of Fairchild Lake area, (106C/13), Wernecke Mountains, Yukon. Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Gesocience Map 1998-10, 1:50,000 scale.

THORKELSON, D.J. AND WALLACE, C.A., 2000. Geology and mineral occurrences of the Slat Creek, Fairchild Lake and ŁDolores CreekŁ 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.

YUKON GEOLOGY AND EXPLORATION 1979-80, p. 224.

YUKON EXPLORATION AND GEOLOGY 1981, p. 186-187, 203

Work History		
Date	Work Type	Comment
12/31/1994	Geochemistry	
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/31/1994	Geochemistry	
12/31/1980	Drilling	Four holes, 140 m.
12/31/1979	Geochemistry	
12/31/1979	Drilling	Four holes, 603 m.
12/31/1979	Geology	
12/31/1979	Airborne Geophysics	
12/31/1978	Geochemistry	
12/31/1978	Geology	
12/31/1978	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 Wernekes 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 Wernekes Project	Reverse Circulation - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Scintillometer - Ground Geophysics, Prospecting - Other		
090376	1978	Preliminary Geological Report on the Otter 1-4 Mineral Claims	Property Evaluation - Other, Prospecting - Other		