



Occurrence Details

Occurrence Number: 106C 007
Occurrence Name: Fairchild
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 12/16/2025 3:27:57 AM

General Information

Secondary Commodities: copper, uranium
Deposit Type(s): Iron Oxide Breccias & Veins (Wernecke Breccias)
Location(s): 64°57'22" N - -133°45'22" W
NTS Mapsheet(s): 106C13
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Tyana cl (Y6997) in Oct/67 by L. Brown and optioned to Hercules Exploration Corporation Ltd, a subsidiary of Cyprus Exploration Corporation Ltd, which conducted a program of mapping, soil sampling and mag and IP surveys in 1969, then did some bulldozer trenching on IP anomalies.

Restaked as Fair cl (Y87521) in Mar/74 by Magni Devolpment Ltd, which performed a VLF-EM survey and drilled 2 holes (138 m) later in the year and transferred the property to Menika Mining Ltd in 1975.

Restaked as Fair cl (YA30243) in May/78 by Energex Minerals Ltd, which explored with mapping, geochem and radiometric surveys in 1978, hand trenching in 1979, and orthophoto map preparation, geology and geophysics in 1981.

Restaked as Fair 1-78 cl (YB29152) in Oct/92 by a joint venture consisting of Pamicon Developments Ltd and Equity Engineering Ltd. The following summer, the companies explored with geological mapping, lithogeochemistry and soil sampling. In Sept/93 Newmont Exploration Ltd conducted an airborne geophysical survey over the area using proprietary company equipment. Pamicon and Equity added Fair cl 79-94 (YB42289) to the southeast end of the claim block in Oct/93.

In Jan/94 Pamicon and Equity transferred 100% interest in the Fair claims to Westmin Resources Ltd which then formed the Fairchild Joint Venture with Newmont. In the summer of 1994, the Fairchild Joint Venture contracted Pamicon and Equity to carry out preliminary geological mapping, prospecting, grid cutting and soil geochemical sampling. Equity carried out additional geological mapping, rock and soil sampling in the summer of 1995.

In Oct/92 Pamicon Development Ltd and Equity Engineering Ltd staked Whale cl 1-10 (YB29152) 1.5 km to the east. In early 1993, Pamicon and Equity optioned the claims to International Prism Exploration Ltd. In Jul/93 International Prism retained Pamicon and Equity to carry out a brief exploration program consisting of preliminary geological mapping, lithochemical sampling and soil geochemistry.

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 hematitic Wernecke Breccia. 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.

The original showing consists of a small outcrop of mafic igneous (interpreted as volcanic) rocks containing minor copper oxide and bornite. Representative samples over an outcrop length of 107 m averaged 0.17% Cu. Trenches dug by Hercules showed the IP chargeability anomalies were caused by shale. A magnetic anomaly trends northwest across the grid and is apparently caused by the disseminated magnetite in the mafic rock. No significant geochemical response was obtained.

Work carried out by Energex uncovered mineralization in an altered porphyritic mafic dyke cutting Early Proterozoic limy argillite of the Fairchild Lake Group. Surrounding rocks are strongly faulted, contain zones of breccia, and exhibit chloritic alteration and enrichment in magnetite and hematite. Minor brannerite was located in eight feldspathized and hematized areas within the limy argillite. The best assays were 0.061% U3O8 across 0.9 m and 0.072% from a selected specimen, and 0.38% Cu across 13 m of fractured hornfels.

Mapping carried out by Pamicon and Equity in 1993 revealed north-northwest, north and northeast trending lineaments transect the claims. Copper mineralization was found in three modes: (1) chalcopyrite in isolated veins and stringers and disseminations in the Fairchild Lake Group, (2) chalcopyrite with magnetite, albite and iron carbonate in alteration zones adjacent to sodic-rich hetrolithic breccia, and (3) fracture-controlled bornite and lesser chalcopyrite in mafic flows(?) and intrusive units.

References

ENERGEX MINERALS LTD, 1978. Assessment Report *#090445 by C.K. Ikona and M. Stammers.

ENERGEX MINERALS LTD, 1980. Assessment Report *#090596 by C.K. Ikona and D.A. Yeager.

ENERGEX MINERALS LTD, 1981. Assessment Report *#090830 by C.K. Ikona and D.A. Yeager.

ENERGEX MINERALS LTD, Dec/81. Assessment Report #091026 by K.V. Campbell & C.K. Ikona.

EQUITY ENGINEERING LTD, Feb/95. Assessment Report #093264 by 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).

HERCULES EXPLORATION CORP. LTD, Aug/68. Assessment Report #019049 by J.G. Baird.

MINERAL INDUSTRY REPORT 1978, p. 11-12.

PAMICON DEVELOPMENTS LTD, Feb/94. Assessment Report #093180 by M.A. Stammers.

PAMICON DEVELOPMENTS LTD, Jan/96. Assessment Report #093381 by M.A. Stammers.

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., 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.

WESTMIN RESOURCES LTD, Jan/94. Assessment Report #093168 by M.A. Stammers.

YUKON GEOLOGY AND EXPLORATION 1979-80, p. 223.

YUKON EXPLORATION AND GEOLOGY 1982, p. 175-176.

Work History

Date	Work Type	Comment
12/31/1995	Geochemistry	
12/31/1995	Geology	
12/31/1995	Geochemistry	
12/31/1994	Geochemistry	
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/31/1994	Other	
12/31/1993	Geochemistry	
12/31/1993	Geology	
12/31/1993	Geochemistry	
12/31/1993	Airborne Geophysics	Also radiometric survey.
12/31/1981	Pre-existing Data	Re-analyzed previous geophysics data.
12/31/1981	Geology	
12/31/1981	Studies	
12/31/1979	Trenching	
12/31/1978	Ground Geophysics	
12/31/1978	Geology	
12/31/1978	Geochemistry	
12/31/1978	Other	
12/31/1974	Drilling	Two holes, 138 m.
12/31/1974	Ground Geophysics	Also VLF survey.
12/31/1969	Geology	
12/31/1969	Geochemistry	
12/31/1969	Ground Geophysics	Also I.P. survey.
12/31/1969	Trenching	Trenched I.P. anomalies.
12/13/1974	Airborne Geophysics	Also magnetic survey.

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		
093381	1995	1995 Geological and Geochemical Assessment Report on the Fair Claim Group	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		

093168	1993	1993 Summary Report on the Fair 1-78 Claims	Orthophoto - Airphotography, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
091026	1981	Report on Geological Mapping, Soil Sampling and Rock Sampling of the Fair Property	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		
090830	1981	Compilation Report on the Fair Mineral Claims	Orthophoto - Airphotography, Process/Interpret - Pre-existing Data		
090445	1978	Geological Report on the Fair Mineral Claims	Soil - Geochemistry, Bedrock Mapping - Geology, Property Evaluation - Other		
019049	1968	Report on Induced Polarization Survey, Fairchild Lake	IP - Ground Geophysics		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC01014Z	Geochemical map - Fairchild Lake		Property File Collection	Geochemical Map
ARMC01015Z	Geology map - Tyana claim group - Fairchild Lake		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC010158	Soil sampling plan map - Tyana claim group - Fairchild Lake		Property File Collection	Geochemical Map
ARMC010159	Magnetometer survey map - Tyana claim group - Fairchild Lake		Property File Collection	Geophysical Map
ARMC010166	Fairchild Lake trenching plan map		Property File Collection	Geoscience Map (General)
ARMC013545	Geology map - Tyana claim group - Fairchild Lake		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC011915	Map of Copper, Cobalt, and Uranium showings in Helikian shales - Fairchild Lake area - Reef project - Figure 27		Property File Collection	Geoscience Map (General)
ARMC013546	Ground magnetometer survey - Tyana claims, Fairchild Lake - Map no. E133-1		Property File Collection	Geophysical Map
ARMC01354Z	Geochemical results map - Tyana claim group - Fairchild Lake		Property File Collection	Geochemical Map

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data
DDH-1	Fairchild	1974	AQ	0	1
DDH-2	Fairchild	1974	AQ	0	1