Occurrence Details

Occurrence Number: 115B 008
Occurrence Name: Telluride
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 12/17/2025 8:12:53 PM

General Information

Secondary Commodities: copper, lead, palladium, platinum, silver, zinc
Aliases: Ultra
Deposit Type(s): Volcanogenic Sulphide - type not determined
Location(s): 60°53'16" N - -138°18'24" W
NTS Mapsheet(s): 115B16
Location Comments: Location GPS coordinates from AR097455
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

The presence of gold and copper mineralization was first noted in this area by the Geological Survey of Canada (GSC) in 1904.
Claim records indicate that the eastern most occurrence location was staked as Cub cl 1-56 (70980) in Sep/55 by Gaymont Prospecting Syndicate (which included Teck-Hughes Gold Mines Ltd and Iso Uranium). The syndicate also staked Lee cl 1-24 and 25-32 (71118) contiguously to the east and west at that time, carried out prospecting and constructed a tote road to the property in Nov/55.
Conwest Exploration Ltd staked Ellias cl 1-8 and Kloo cl 1-14 (71206) to the northwest and Newkirk Mining Corporation staked Kluane cl 1-8 and 9-18 (71228) to the east and northeast during Sep/55.
In 1956, Gaymont carried out geophysical resisitivity and gravity surveying and drilled three holes (107.9 m), all of which were abandoned in deep overburden due to broken casings.
Restaked as Glacier cl 1-32 (75802) in Jun/61 by Canadian Exploration Ltd, which carried out Turam EM geophysical surveying later that year and drilled two rotary holes (about 122 m) in 1962.
Restaked as Jasper cl 3-8 (90307) in Jul/64 by Meridian Syndicate (Canadian Exploration Ltd, Noranda Exploration Company and Homestake Mineral Development Company).
Restaked as Cub cl 1-24 (92311) in Jul/65 by Coranex Ltd (Frobex Ltd, McIntyre Porcupine Mines Ltd, Inco, Dome Mines Ltd and Denison Mines Ltd), which added Cub cl 25-32 (92864) to the northeast in Sep/65; staked Tel cl 1-26 (Y4027) In Mar/66 to surround the existing claims on three sides; carried out Turam EM surveying in Jul/66; and carried out geochemical rock, silt and soil sampling in 1967. The original occurrence was partially restaked when Coranex added Buc cl 1-6 (Y38257) in Sep/69 to the three remaining Cub claims.
The property was optioned by Atlas Explorations Ltd in 1970, which staked Rog cl 1-40 (Y53030) in Jun/70 to surround the existing claims and carried out limited EM geophysical surveying, geochemical silt and soil sampling, prospecting and drilled 3 holes (216 m) of which one was lost in overburden. Dynasty subsequently dropped the option.
Restaked as Tell cl 1-6 (YA8239) in Sep/76 by Archer, Cathro and Associates Ltd on behalf of Aquitaine Oil Company of Canada Ltd, which added Tell cl 7-62 (YA8912) in May/77 and carried out prospecting and geochemical sampling later in the year.
Restaked as Ultra cl 1-20(YA96740) in Jan/87 by Kluane Joint Venture (All-North Resources Ltd and Chevron Minerals Ltd) and optioned to Nordac Mining Corporation, which subsequently changed its name to Big Creek Resources Ltd. Big Creek carried out geological mapping, prospecting and geochemical rock and soil sampling in 1987. Reed Creek Joint Venture (Fleck Resources Ltd, All-North Resources Ltd and Chevron Minerals Ltd) tied on Sugar cl 1-25 (YA97183) to the north and east in May/87 and carried out geological mapping, prospecting and geochemical rock and soil sampling later in the year. Archer, Cathro and Associates (1981) Ltd added Ulltra cl 21-26 (YB27505) in May/90.
In Dec/2000, T. Morgan staked Ultra cl 1-30 (YC19001) to the north of the westernmost occurrence location (Telluride/Frohberg showing). The following year, in Feb/01, V. Matkovich staked Ultra cl 37 -72 (YC19098) to cover the easternmost (float occurrence), Gab cl 1-47 (YC19045) to cover the headwaters of the creeks to the southeast and northwest and Eli cl 11-14 (YC18433) between these two groups. Later in 2001, Morgan carried out prospecting, geochemical rock sampling, magnetometer surveying and staked Ult cl 1 (YC19376, Ultra cl 73-80 (YC19398), Tell cl 1-4 (YC19406) and Ultra cl 81-90 (YC26106) in September and Oct/2001.
In 2002, 19651 Yukon Inc (a private company of which Morgan and Matkovich are the principals), carried out geophysical VLF, magnetometer and HLEM surveying, minor hand and blast trenching and geochemical rock sampling. A similar program was attempted late in 2003 and earlier included the staking of Ult cl 2-7 (YC25938) in May/2003.
In early Feb/2004 the Jen cl 1-40, 120, 136-167 and 251 (YC26408) were staked contiguously to the south and west and the Ult cl 8-140 and 142-176 (YC26239) were staked to the north and east of the existing claim group. Subsequently, in a press release dated 12 Feb/2004, Klondike Gold Corporation announced that it had optioned the property. Klondike Gold carried out geological mapping, prospecting, geochemical rock sampling and airborne geophysical magnetometer and EM surveying in August and Sep/2004.
In Jun/2005, Klondike Star Mineral Corporation signed an agreement to acquire a 75% interest in the Ultra claims from Klondike Gold.

Capsule Geology

A new bedrock mapping program focused on the Kluane Ranges in the southwest Yukon was initiated by the Yukon Geological Survey (YGS) in Jun/2004, remapping of this area is scheduled to commence in 2005. A review and interpretation based on available property scale geological mapping from assessment reports suggests that the boundary between Alexander Terrane and Wrangellia Terrane in this area may lie further to the west than is indicated by current regional scale mapping. The presence of several mafic-ultramafic sills of the Late Triassic and (?) older Kluane Ultramafic Suite intruding the northwest trending package volcanic and sedimentary lithologies present in the upland portions of the area further supports this interpretation. The sills are thought to be part of a subvolcanic system that fed the Mid- to early Late Triassic mafic volcanic rocks of the Nikolai Group which occur to the east overlying and in places interbedded with limestone and argillite of the Upper Triassic Chitistone Group.
The occurrence of `copper-pyrites in crushed zones¿ on Telluride creek noted by the GSC in 1904, probably lies close to the train of mineralized float boulders discovered in Cub Creek northeast of a terminal moraine which crosses the creek near its junction with Telluride Creek. The float boulders, the largest of which is up to 13.6 tonnes, consists of fine grained pyrite with lesser sphalerite, chalcopyrite, quartz, carbonate and minor galena. Distinct bands up to several centimetres across are defined by variations in sphalerite content. Sampling of these boulders and others that were later found further upstream showed average grades of about 6.9% Zn, 1.8% Cu, 24.0 g/t Ag, 0.2% Pb and trace Au.
Minor native copper was intersected in one of the 1962 drillholes, probably in the Nikolai Group. The ground geophysical surveys outlined a resistivity anomaly (not drilled) and a Turam conductor, which 1970 drilling showed was caused by interstitial marcasite and thin coal seams in the Eocene aged Amphitheatre Formation which overlies all other units in this area. Resurveying of this area in 2002 by HLEM methods identified three similar trending, weak conductors one of which has a conductance at the lower limit of what would normally be expected from a massive sulphide body.
One possible source of the mineralized boulders, the Telluride showing (identified by the westernmost location marker) was located by prospecting in 1977 at an elevation of 2 532 m, about 5 km southwest of the float occurrence. It consists of a lens of banded massive sulfides, 30 m long and 1 to 2 m thick, hosted by what is described as massive, dark to medium green, epidote rich meta-andesite (Eaton, 1988). The sulphide lens is underlain by strongly disseminated pyrite in a cherty zone and is surrounded by a weak siliceous halo.
The Frohberg showing is situated much lower on the cliff, 1.5 km to the east of the Telluride showing, and consists of pyrite, pyrrhotite, pentlandite and chalcopyrite in quartz-carbonate veinlets up to 3 cm across in a 6 by 2 m area along the margins of a mafic sill or dyke cutting a phyllite unit. Historic grab samples returned relatively high copper values (0.32 to 18.9%) with lower nickel values (0.03 to 1.85%) and anomalous but low platinum group values, except for one sample collected in 1977 which reportedly assayed 1.2 g/t Pt and 5.1 g/t Pd. Resampling of the phyllitic wallrock by Morgan in 2002 returned 240 ppb Au, 203 ppb Pt, 1 907 ppb Pd and 1.66% Cu. Blasting and hand trenching of the southern end of this showing in 2002 facilitated the collection of a sample extending from the margin of the sill, 0.5 m into the fractured and veined wallrock. Analysis of this sample returned 4.067% Cu, 1.73% Ni, 0.46 g/t Au, 5.54 g/t Pt and 13.46 g/t Pd.
In addition to the sill described above, at least two large ultramafic and several narrow mafic sills have also been identified in the area. The largest ultramafic body lies a few hundred meters north of the Frohberg showing and is 1 800 m long by 200 m wide and consists of dunite with lesser pyroxenite, serpentine and gabbro phases. The narrower sills consist solely of gabbro. Reported results of limited historical sampling of these other sills showed only a few weakly anomalous copper and nickel values. It has alternately been suggested (Casselman, 2005) that these occurrences may represent two stacked sills, although more detailed mapping is required to test this assumption.
Exploration in 2004 was focused on the lower slopes on the east side of the property and was directed towards locating other possible sources of the mineralized float boulders previously discovered in Cub Creek. Bedrock exposures of limonitically stained, pyritic stockworks in occassionally chloritically altered basalts were identified in a number of locations along the creeks to the northwest of Cub

Creek and several similarily mineralized boulders were found approximately 4.5 km to the south-southeast in the upper reaches of Bryson Creek. Possibly representative of low-grade stockwork zones that commonly underlie massive sulphide lenses in typical Kuroko type systems, a grab sample from one of the Bryson Creek boulders returned 1.14% Cu with elevated levels of As (2 910 ppm).
A total of fifty-four EM anomalies were identified in the course of the airborne geophysical survey. The field data was filtered and standard corrections were applied before the anomalies were ranked based on their relative strengths. No other interpretation was carried out at the time of reporting and as the surveying was carried out subsequent to the ground phase of the program the conductors have not yet been ground truthed.

References

AQUITAINE COMPANY OF CANADA LTD, Sep/77. Private company report by J.G. Abbott and R.J. Cathro.

ATLAS EXPLORATIONS LTD, Dec/70. Assessment Report #091315 by M.E. Coates.

BIG CREEK RESOURCES LTD, Feb/88. Assessment Report #092130 by W.D. Eaton.

CANADIAN EXPLORATION LTD, Oct/61. Assessment Report #017469 by R.K. Watson.

CORANEX LTD, Jul/66. Assessment Report #017473 by R.A. Bosschart.

CORANEX LTD, Oct/67. Assessment Report #019068 by J.R. Woodcock.

GAYMONT PROSPECTING SYNDICATE, Nov/56. Assessment Report #091722 by A.R. Clark and M.H. Frohberg.

GEOLOGICAL SURVEY OF CANADA Summary Report 1904, p. 16-18.

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).

GREENE, A.R. et al, 2005. Flood basalts of the Wrangellia Terrane, southwest Yukon: Implications for the formation of oceanic plateaus, continental crust and Ni-Cu_PGE mineralization. In: Yukon Exploration and Geology 2004, D.S. Emond, L.L. Lewis and G.D. Bradshaw (eds.), Yukon Geological Survey, p. 109-120.

HOY, T., 1995. Noranda/Kuroko Massive Sulphide Cu-Pb-Zn, in Selected British Columbia Mineral Deposit Profiles, Volume 1 ¿ Metallics and Coal, Lefebure, D.V. and Hoy, T, Editors, British Columbia Ministry of Energy, Employment and Investment, Open File 1995-20, p. 53-54.

HULBERT, L.J., 1997. Geology and Metallogeny of the Kluane Mafic-Ultramafic Belt, Yukon Territory, Canada: Eastern Wrangellia ¿ A new Ni-Cu-PGE Metallogenic Terrane. Geological Survey of Canada Bulletin 506, 265 p.

ISRAEL, S., 2004. Geology of the Southwestern Yukon (1:250 000 scale). Yukon Geological Survey. Open File 2004-16.

KLONDIKE GOLD CORPORATION, News Release, 12 Feb/2004.

KLONDIKE GOLD CORPORATION, Jan/2005. Assessment Report #094485 by S. Casselman.

KLONDIKE STAR MINERAL CORPORATION, News Release, 09 Jun/2005.

MORGAN, T., May/2002. Assessment Report #094395 by R.D. Brickner.

MORGAN, T., Jun/2003. Assessment Report #094413 by S. Casselman and T. Morgan.

MORGAN, T., May/2004. Assessment Report #094465 by P. Jackson and T. Morgan.

READ, P.B. and MONGER, J.W.H., 1976. Pre-Cenozoic volcanic assemblages of the Kluane and Alsek Ranges, southwestern Yukon Territory. Unedited report to accompany Geological Survey Open File 381, p. 67-68.

REED CREEK JOINT VENTURE, Feb/88. Assessment Report #092100 by W.D. Eaton.

YUKON EXPLORATION AND GEOLGY 2001, p. 21; 2003, p. 34-35.

Work History

Date	Work Type	Comment
7/1/2020	Geochemistry	
7/1/2020	Geochemistry	
7/1/2020	Geochemistry	
7/1/2020	Other	
12/31/1987	Geochemistry	
12/31/1987	Geology	
12/31/1987	Other	
12/31/1977	Geochemistry	
12/31/1977	Other	
12/31/1977	Other	
12/31/1970	Drilling	Three holes, 216.103 m.
12/31/1970	Geology	
12/31/1970	Geochemistry	

12/31/1970	Ground Geophysics	
12/31/1967	Geochemistry	
12/31/1967	Geology	
12/31/1967	Geochemistry	Also silt sampling.
12/31/1966	Ground Geophysics	Turam survey.
12/31/1961	Ground Geophysics	Turam EM survey.
12/31/1956	Drilling	Three holes, 107.9 m. All drill holes failed to reach bedrock.
12/31/1956	Ground Geophysics	Also gravity survey.
12/31/1955	Development, Surface	
12/13/2001	Geochemistry	
12/13/2001	Ground Geophysics	
12/13/2001	Other	
12/13/1987	Geochemistry	
12/13/1962	Drilling	Two holes, 121.92 m.
12/13/1955	Other	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096112	2011	Geological and Geochemical Assessment Report on the Ultra Project	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
095197	2008	Prospecting, Geochemical and Trenching Report on the 2008 Ultra Project	Soil - Geochemistry, Prospecting - Other, Mechanical - Trenching		

Related References

Number	Title	Page(s)	Reference Type	Document Type
2014-18	Preliminary bedrock geology of the Mt. Decoeli area (parts of NTS 115A/12, 13 and 115B/9, 16)		Yukon Geological Survey	Open File (Geological - Bedrock)
ARMC013579	Photos - Hunter survey - Cub claims		Property File Collection	Photos
ARMC013586	Report on a turam electromagnetic survey - Cub project, Yukon - On behalf of Atlas Explorations Limited		Property File Collection	Report
ARMC013587	Report on Cub Creek Copper-Zinc prospect - Cub Creek, Yukon Territory		Property File Collection	Report
ARMC013585	Report on Tote-Trail construction - Cub project - Cub, Buc & Rog mineral claim groups - Work done in the period July 1 to 15, 1970		Property File Collection	Report
ARMC013578	Turam E.M. survey - 400 C.P.S. - Cub claims		Property File Collection	Geophysical Map
ARMC013577	Turam survey on Cub Creek area - Excerpts from report by Huntington Survey Corp. Ltd.		Property File Collection	Report
ARMC013581	Notes on geophysical work (Clark's work) on Cub claims		Property File Collection	Miscellaneous Company Documents
ARMC013584	Air photo A12852-411 and overlay - Cub claims		Property File Collection	Geoscience Map (General)
ARMC013582	Air photo A12852-412 and overlay - Cub claims		Property File Collection	Geoscience Map (General)
ARMC013583	Air photo A12856-209 and overlay - Cub claims		Property File Collection	Geoscience Map (General)
ARMC013576	Summary of Cub Creek data - Cub Creek, Yukon		Property File Collection	Report
ARMC013580	Sketch map showing electrical and topography readings - Cub claims		Property File Collection	Geoscience Map (General)
ARMC013573	Grid map - Cub group - 115-B-16		Property File Collection	Geoscience Map (General)
ARMC013574	Key map - Cub project, Buc & Rog claims		Property File Collection	Geoscience Map (General)
ARMC013575	Schematic section map - Line 18+00S; Cub grid		Property File Collection	Geoscience Map (General)

ARMC013588	Compilation of data - Geology, geophysics & geochemistry - Cub Creek - Figure 4		Property File Collection	Geoscience Map (Geological - Bedrock)