Occurrence Details

Occurrence Number: 105M 035
Occurrence Name: Jane
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 12/15/2025 10:15:28 PM

General Information

Secondary Commodities: arsenic, copper, gold, lead, silver, zinc
Aliases: Patterson
Deposit Type(s): Volcanogenic Sulphide - type not determined
Location(s): 63°58'58.8" N - -134°36'13.36" W
NTS Mapsheet(s): 105M15
Location Comments: Approximate center point of zone. Information taken from various maps.
Hand Samples Available: No
Last Reviewed: Nov 8, 2016

Capsule

WORK HISTORY

*In Nov/2016 this occurrence was moved approximately 2 km to the northeast (head of Jane Creek), to cover the location of the Jane zone/occurrence.

Staked as Jane cl 1-20 (84016) by Canadian Superior Exploration Ltd in Apr/65 following release of Geological Survey of Canada's Operation Keno (1964) total heavy metal data (Gleeson, 1965). Explored by prospecting and geochemical sampling during summer of 1965 under a joint venture with United Keno Hill Mines Ltd. The adjoining XX cl 1-6 (84138) were staked by United Keno Hill in Mar/65 and explored later that year.

U. Leis & J. Graham staked Uno cl 1-20 (Y96990) to the northwest in Sep/74 and optioned the claims to Cypress Anvil Mining Corp which carried out silt sampling in 1975 (see property file ARMC011619 under Related References).

Restaked within Marg cl 1-90 (YB02385) between July and Nov/88 by a joint venture group consisting of NDU Resources Ltd (66 2/3% interest) and Cameco Corporation Ltd (33 1/3% interest). Between 1988 and 1990, the group carried out geological mapping, rock, stream and soil sampling, ground VLF EM, magnetic and pulse EM geophysics, and minor hand trenching in the occurrence area. This work was completed in conjunction within a larger exploration program carried out on the Marg deposit (Minfile Occurrence #106D 009) located 7 km to the northeast and led to the discovery of the Jane zone.

In Jan/96 NDU negotiated an option agreement to purchase Cameco's interest in the Marg property (which included this occurrence). The agreement called for NDU to make a series of staged payments, totaling $750,000.00 over four years to Cameco. Upon completing the payments, NDU would own a 100% interest in the property. As part of their larger exploration program NDU deepened one trench and collected additional geochemical samples in the vicinity of the Jane zone.

In November and Dec/97 a winter bulldozer road was constructed from Keno City to the edge of the property boundary. In Mar/98 NDU merged with United Keno Hill Mines Ltd. United Keno envisioned placing the Marg deposit into production using the Keno mine site for processing the ore. United Keno issued convertible debentures to Norvista Development Ltd and withdrew cash through a promissory note using their interest in the Marg property as collateral. United Keno encountered financial problems which caused it to default on the promissory note and ultimately forced the company into bankruptcy.

In Feb/2000 Atna Resources Ltd purchased United Keno's interest (66.7%) in the property following a court ordered sale of the property. Cameco retained its 33.3% interest in the property on account of United Keno's default of NDU's original option agreement. Shortly thereafter Cameco and Atna formed a joint venture to advance exploration on the property. Exploration work in the occurrence area during the 2000 field season consisted of geological mapping and three reconnaissance soil sample lines.

In Sep/2004 Atna purchased Cameco's interest in the property, consolidating a 100% interest under Atna's sole ownership. Subsequently, in Mar/2005 Atna announced the sale of the Marg deposit to Yukon Gold Corporation Inc. Yukon Gold commissioned the preparation of an independent National Instrument 43-101 compliant report on the property (released in Jun/2005), which included the Jane zone.

In the fall of 2005 Yukon Gold drill 4 diamond drill holes (1 184.6 m) to test various portion of the Marg deposit. No work was carried out on the Jane zone. During the 2006 exploration season the company flew an airborne Versatile Time Domain Electromagnetic (VTEM) geophysical survey over the entire property and collared drilled 9 diamond drill holes (2 987.9 m) on the Marg deposit.

On July 9, 2007 Yukon Gold released an updated mineral resource estimate for the Marg deposit which included a summary of the Jane zone. Following the release of the report the company soil sampled 7 separate grids located throughout the property and drilled 11 diamond drill holes (1 300.97 m). Two of the soil grids and 4 of the diamond drill holes tested targets associated with the Jane zone.

In Jul/2008 Yukon Gold released an updated mineral resource estimate for the Marg deposit. During the 2008 field season the company collared 10 diamond drill holes (3 673.8 m) and carried out various metallurgical tests. No work was carried out in the vicinity of the Jane zone.

In May/2009 Yukon Gold acquired a 100% interest in the Marg property. In mid-2010 the company experienced financial problems and on August 31 2010 obtained financing from Lance Capital Ltd in the form of a promissory note using the Marg property as collateral. On November 15, 2010 the company's wholly owned subsidiary Yukon Gold Corp declared bankruptcy and went into receivership. Lance Capital subsequently acquired ownership of the Marg property.

On April 18, 2011 Copper Ridge Explorations Inc purchased a 100 % interest in the Marg property from Lance Capital subject to a series of staged payments. On May 31, 2011 Copper Ridge refinanced and changed its name to Redtail Metals Corp and released an updated mineral resource estimate for the Marg deposit which included a summary of results for the Jane zone. On November 5, 2012 Redtail Metals announced that they had made the final payment to Lance Capital to acquire a 100 % unencumbered interest in the Marg deposit.

On October 28, 2013 Redtail Metals and Northern Tiger Resources Inc announced their intention to merge, with Northern Tiger becoming the successor company. On November 30, 2013, as part of the merger, the companies released an updated mineral resource estimate for the Marg property which included a summary of the Jane zone. On December 17, 2013, Northern Tiger and Redtail Metals announced that the combined companies would purchase the Brewery Creek project (Minfile Occurrence #116B 160) and other assets from American Bullion Royalty Corp and change the combined companies name to Golden Predator Mining Corp. The merger between Northern Tiger and Redtail Metals was approved on February 24, 2014 and

the name change to Golden Predator Mining was approved on April 17, 2014.

On March 16, 2015 Golden Predator optioned the Marg property to MinQuest Ltd (an Australian company) in return for cash, shares and certain work commitments. On October 6, 2015 MinQuest released a JORC compliant (Australasian Code for Reporting Results, Mineral Resources and Ore Reserves) updated mineral resource estimate for the Marg deposit. On November 25, 2015 the company released a scoping study based on the updated mineral resource estimate. Only portions of the two reports were publicly released in Canada. The released portions only covered the Marg deposit.

During the first quarter of 2016 MinQuest paid Golden Predator shares required to maintain the option agreement. On April 21, 2016 MinQuest terminated the option agreement and returned the Marg property to Golden Predator.

On July 21, 2016 Golden Predator sold the Marg property to Revere Development Corp for cash, shares and a 1 % Net Smelter Return (NSR) interest (date based on Yukon Government records). On August 31, 2016 Revere Development released a NI 43-101 compliant Preliminary Economic Assessment Technical Report and updated mineral resource estimate for the Marg deposit. The technical report included a section on exploration work completed to date on the Jane zone.

CAPSULE GEOLOGY

The geology of the occurrence area is similar to that which hosts the Marg deposit (Minfile Occurrence #106D 009), located 7 km to the northeast. The area lies near the north-central boundary of the Selwyn Basin, a predominantly off-shelf metasedimentary and metavolcanic sequence deposited west of ancestral North America. Regionally the area consists of three major tectonostratigraphic elements. These elements are, from north to south: Middle-Proterozoic shelf sequence carbonate rocks of the Wernecke Supergroup (that are unconformably overlain by Lower to Middle Paleozoic carbonate shelf sedimentary rocks); Late Proterozoic to Lower Cambrian off-shelf rocks of the Hyland Group and Devonian to Mississippian rocks of the Earn Group and Keno Hill Quartzite.

Three major fault structures control the geometry of the major stratigraphic units. The northern-most fault, the Dawson Thrust, separates off-shelf rocks of the Selwyn Basin (Keno Hill Quartzite, Earn Group and Hyland Group) from shelf rocks of the Wernecke Supergroup. The central Tombstone Thrust imbricates rocks of the Keno Hill Quartzite and the Earn Group, host of the Marg deposit (occurrence). The southern-most fault, the Robert Service Thrust carries rocks of the Hyland Group onto the Earn Group and Keno Hill Quartzite. Only the latter two structures are present in the vicinity of the occurrence.

Abbott (1990) mapped rocks surrounding the Marg deposit (map sheet 106D 01) while Roots (1997a) carried out detailed mapping to the south (including the occurrence area), on map sheet 105M. During the 2000 field season, majority owner Atna Resources Ltd, re-mapped the property using information obtained from traverses, prospecting and re-logging of drill core. Atna tried to maintain consistency with maps used on existing geology maps.

The Marg property is primarily underlain by a thrust panel situated between the Robert Service and Tombstone thrust faults. This thrust panel consists of four stratigraphic/lithologic groups within the property boundaries. Although precise stratigraphic progression is difficult to determine due to extensive folding and faulting, the following description is based on the most recent data available. The oldest rocks are probably Late Precambrian to Early Cambrian Hyland Group siliciclastic metasedimentary rocks.

The next oldest group of rocks present on the property are three distinct sequences of metasedimentary and metavolcanic rocks, one of which is a 300 m thick, folded, succession that surrounds and hosts the Marg deposit and the Jane zone. Most authors believe that these rocks are correlated with the Devonian to Mississippian age Earn Group, although lack of clear diagnostic features such as fossils or the chert-pebble conglomerate unit makes this correlation tentative. The three rock units are structurally, and probably stratigraphically interlayered with the Keno Hill Quartzite. The upper package (DMvs) of metasedimentary rocks consists of graphitic, argillaceous material with abundant intercalations of fine-grained volcaniclastic rocks and locally, thin carbonate lenses. The middle unit (DMps) is composed of black argillaceous rocks (graphitic schist). The lower unit (DMv) is a volcanic sequence composed of quartz- and feldspar-phyric tuffs and possible flows, fine-grained ash tuffs and related volcanic sedimentary rocks and massive sulphide mineralization.

The Mississippian age Keno Hill Quartzite is the next major stratigraphic unit reported on the property. The unit consists of black to dark-grey weathering (but light grey on fracture surfaces), homogeneous, fine- to medium-grained, "clean", quartz-rich (>90% quartz) rock, commonly containing 2 to 30 m thick intercalations of graphitic argillite and rare interbeds of metatuffaceous rocks. The quartzite is anomalously thick and laterally extensive within the Marg area commonly forming extensive lenses in excess of 100 m thick. A Mississippian age of the unit is indicated from fossil evidence at a number of localities in the Dawson area. Contacts between the quartzite in probable Earn Group rocks are commonly fractured due to rheological differences, however, unfractured (both gradational and sharp) contacts with argillite and tuffaceous rocks are observed within drill core, suggesting conformable relations with adjacent rocks on the Marg property.

Metasedimentary and metavolcanic rocks of the Keno Hill Quartzite and the Earn Group in the Marg map area are intruded by Triassic (?) diorite to gabbro dykes and/or sills. These rocks have an indicated Triassic age and within the Marg area, consist of mafic intrusive rocks typified by medium-grained, equigranular, euhedral shaped hornblende-plagioclase diorite to gabbro that locally contains porphyritic K-feldspar. In isolated locations, the gabbros have differentiated K-feldspar to plagioclase-rich margins that may indicate tops.

The original occurrence site was located approximately 2 km to the south and marked the site of a strong zinc stream sediment anomaly identified during the Geological Survey of Canada's Operation Keno Hill. United Keno Hill Mines followed up the anomaly with a soil sampling and prospecting program geared towards discovering silver vein mineralization similar to that found in the Keno area to the south. Although the soil sampling verified the anomaly the absence of silver vein mineralization led United Keno to drop the claims.

The new occurrence site marks the location of a second zinc stream sediment anomaly identified during the Geological Survey of Canada's Operation Keno Hill. Follow-up soil sampling and prospecting by United Keno Hill verified the anomaly at the head of Jane Creek. The lack of silver mineralization led United Keno Hill to drop the claims.

A brief prospecting traverse undertaken by NDU Resources in 1988 located small fragments of strongly oxidized, sulphide bearing rock in coarse talus below a steep slope at the head of Jane Creek. The best assay was 0.29% copper, 4.34% lead, 5.14 % zinc, 38.4 g/t silver, 0.27 g/t gold and > 1.0 % arsenic. Geological mapping in the area revealed stratigraphic similarities to the Marg deposit and both VLF-EM and Pulse EM ground geophysical surveys outlined nearly identical conductors in the area. Grid soil sampling outlined a 600 m long, 50 to 100 m wide zone of discontinuous but coincident copper, lead and zinc anomalies.

In 1990 NDU Resources dug three hand trenches on the uphill limit of the soil anomaly in an attempt to identify the source of the geochemical anomalies. Two of the trenches encountered quartz-muscovite phyllite with disseminated sulphide minerals which assayed less than 1% combined copper, lead and zinc. The third trench failed to reach bedrock. Between 1996 and 97 the third trench was enlarged and deepened. Although badly broken quartz-muscovite phyllite bedrock was encountered, assays failed to improve on results reported in 1990. The location of the probable source area is further up a steep north facing slope. The stratigraphy dips into the hillside thus restricting efforts to properly evaluate the occurrence. Based on geological mapping completed to date the Jane zone is underlain by Devonian to Mississippian Earn Group metavolcanic and metasedimentary rocks.

Soil sampling carried by Atna Resources in 2000 identified two zones anomalous in copper and zinc southwest of the Jane zone.

Yukon Gold's 2005 technical report dealt mainly with the Marg deposit but did include a summary of work performed to date on the Jane zone. Yukon Gold's airborne Versatile Time Domain Electromagnetic (VTEM) geophysical survey outlined 16 anomalies as important. All of the anomalies identified are underlain by prospective Earn Group stratigraphy. The most promising anomalies lie along strike of the Jane zone.

Yukon Gold's 2007 technical report was released before the start of the summer field season and mainly dealt with the Marg deposit. As there had been no new exploration work completed on the Jane zone, the report repeated results obtained by previous exploration programs. The 2007 soil sample grids covered VTEM anomalies centered on the occurrence area (Grid F) and other VTEM anomalies located to the southwest (Grid G). Both grids returned isolated anomalous copper and zinc anomalies.

Three of the diamond drill holes collared in 2007 tested geochemical and geophysical anomalies associated with the Jane zone. Two of the holes were abandoned due to thick overburden. The remaining drill hole (97-105) collared southwest of the Jane zone intersected a carbonate-rich exhalative horizon; however no massive sulphide were intersected. A fourth drill hole

(97-106) tested a geophysical anomaly located approximately 1.25 km to the northeast of the occurrence. It did not intersect any significant mineralization. The 2008 updated mineral resource estimate covered the Marg deposit and Yukon Gold reported that the estimate was not a material change from the 2007 resource estimate thus the company did not file an updated technical report.

No further significant field work was carried out on the Jane zone or Marg deposit after 2008. Mineral resource estimates and accompanying technical reports filed in 2011 and 2013 contained summaries of the Jane zone but did not contain any new information.

MinQuest's October 2015 updated mineral resource estimate was a desk top exercise which used a refined geological interpretation to calculate a new JORC compliant (Australasian Code for Reporting Results, Mineral Resources and Ore Reserves) updated mineral resource estimate for the Marg deposit. Only portions of the technical report was released in Canada and no information on the Jane zone was released (some information available on listcorp.com – Australian Stock Exchange - under ePat Pty Ltd – successor company to MinQuest).

Revere Development's 2016 technical report and updated resource estimate on the Marge deposit included a summary of the Jane zone but no new information was reported. The report did state "that further work is required to follow up on 2007 drill results with additional geological mapping and rock chip sampling to identify potential sulphide bearing horizons. Additional drilling should target the results from the 2007 VTEM interpretation using the mapped favourable horizons as a guide now that the structural regime in this area is better understood" (page 46, Revere Development's Technical Report).

Work History

Date	Work Type	Comment
12/31/2000	Geochemistry	Company collected three reconnaissance soil sample lines near occurrence.
12/31/2000	Geology	
12/31/1996	Trenching	One of the 1990 trenches was deeped in attempt to reach bedrock.
12/31/1990	Trenching	Three trenches hand dug at the uphill limit of the soil anomaly.
12/31/1989	Geology	
12/31/1989	Geochemistry	
12/31/1989	Ground Geophysics	Also VLF-EM and Pulse EM surveys.
12/31/1989	Trenching	
12/31/1988	Geology	
12/31/1988	Geochemistry	
12/31/1988	Ground Geophysics	Also grid based VLF EM and pulse EM.
12/31/1988	Trenching	
12/31/1965	Other	Staked following release of Geological Survey of Canada Operation Keno total heavy metal data.
12/13/2016	Studies	Study covered Marg deposit but included summary of Jane zone and recommendations for zone.
12/13/2013	Studies	Prepare by Yukon Gold for Marg deposit but included summary of Jane zone. Report similar to 2011 report.
12/13/2011	Studies	Prepare by Yukon Gold for Marg deposit but included summary of Jane zone.
12/13/2007	Studies	Prepare by Yukon Gold for Marg deposit but included summary of Jane zone.
12/13/2007	Drilling	Four holes, 602.89 m. Three holes tested Jane zone, two lost in overburden. One hole tested soil/geophysical anomaly located to northeast. .
12/13/2007	Geochemistry	Two soil grids associated with Jane zone.
12/13/2006	Airborne Geophysics	Flown over entire property.
12/13/2004	Studies	Commissioned by Yukon Gold as part of purchase from Atna Resources but included summary of Jane zone.
12/13/1965	Geochemistry	Soil sampled area around silt anomaly.
12/13/1965	Other	Followed up zinc anomaly.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095627	2007	2007 Diamond Drilling and Soil Sampling	Diamond - Drilling, Drill Core - Geochemistry, Soil - Geochemistry	11	3300.97
094938	2006	Report on a Helicopter-Borne Time Domain Electromagnetic Geophysical Survey-Marg Property	Magnetic - Airborne Geophysics, VTEM - Airborne Geophysics		
094171	2000	Base Map Production on the Marg Property	Orthophoto - Airphotography, Digitizing Data - Pre-existing Data		
094235	2000	Marg Property-2000 Assessment Report	All Weather Road - Development, Surface, Historical Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Detailed Bedrock Mapping - Geology, Process/Interpret - Pre-existing Data, Research/Summarize - Pre-existing Data		

093832	1997	Report on 1997 Trenching and Diamond Drilling on the Marg Project	All Weather Road - Development, Surface, Reclamation - Development, Surface, Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Water - Geochemistry, Bedrock Mapping - Geology, Metallurgical Tests - Lab Work/Physical Studies, Prospecting - Other, Surveying - Other, Hand - Trenching	7	2540
092797	1989	Final Report, 1989 Field Program, Marg Property	Diamond - Drilling, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Magnetics - Ground Geophysics	5	1818.70

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC011619	Geochemical map - Reef project - Uno claim group - HF9-084		Property File Collection	Geochemical Map
YEG1996	Yukon Exploration and Geology 1996	p. 19-20, 31-32.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1997	Yukon Exploration and Geology 1997	p. 12, 36, 38.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2000_26	Structure and stratigraphy of the Marg volcanogenic massive sulphide deposit, north-central Yukon	p. 319-333.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
GM1997-1	Bedrock geology of Mayo map area, central Yukon (NTS 105M)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Geoscience Map (Geological - Bedrock)
12	Volcanic-associated massive sulphide (VMS) mineralization in the Yukon-Tanana Terrane and coeval strata of the North American miogeocline, in the Yukon and adjacent areas		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Bulletin
7	Geology of the Mayo Map Area, Yukon Territory (NTS 105M)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Bulletin
1990-1	Geology of the Mt. Westman Map Area (106D/1)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Open File (Geological - Bedrock)
YEG2000_OV	Yukon Mining & Exploration Overview 2000	p. 12, 24.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2015_OV2	Yukon Hard Rock Mining, Development and Exploration Overview 2015	p. 39, 44.	Yukon Geological Survey	Annual Report Paper