

#### **Occurrence Details**

Occurrence Number: 1150 169
Occurrence Name: Thistle Mountain
Occurrence Type: Hard-rock

**Status:** Showing

Date printed: 4/29/2025 1:02:57 AM

#### **General Information**

Secondary Commodities: gold

Aliases: Thistle Vein, Underworld's Black Fox

**Deposit Type(s):** Vein Au-Quartz **Location(s):** 63°0'54" N - -139°4'29" W

NTS Mapsheet(s): 115003 Location Comments: .5 Kilometres Hand Samples Available: No

Last Reviewed:

### Capsule

#### Work History

Staked as Black Fox cl 1-10 (YC30519) in Apr/2004 by S. Ryan, who collected two lines of soil samples later in the year. S. Ryan staked Black Fox cl 11-38 (YC35175) to the north and south in Oct/2004. In 2005 S. Ryan trenched and carried out a ground magnetic survey and collected additional soil samples. In Oct/2005 S. Ryan staked Black Fox claims 39-52 (YC26525) on the southwest boundary of the Black fox claim block. In 2006 S. Ryan carried out additional trenching, and expanded the magnetic and soil sampling surveys.

In May/2007 S. Ryan optioned the Black Fox and neighboring White Gold (Yukon Minfile Occurrences 1150 165, 166 etc.) claim blocks to Underworld Resources Ltd for cash, shares and certain work commitments. As part of the option agreement Underworld hired Ryanwood Exploration Inc to carry out exploration programs on the Black Fox claims.

In 2007 Ryanwood Exploration trenched the Thistle vein and in 2008 carried out additional soil sampling. In 2009 Underworld Resources carried out grid and ridge and spur soil sampling, limited geological mapping and dug 2 trenches on the north slope of Thistle Mountain.

In Mar/2010 Kinross Gold Corp announced a proposed acquisition of all shares of Underworld Resources with the aim of acquiring control of the White Gold deposit and Underworld's various exploration properties (including this occurrence), located in the Dawson region of the Yukon. In Apr/2006 Kinross announced its successful acquisition of 87% of the issued and outstanding common shares of Underworld Resources. Kinross immediately took steps to acquire the remaining shares of the company and on June 30, 2010 took Underworld Resources private resulting in Underworld Resources becoming a wholly-owned subsidiary of Kinross.

As a privately held company Underworld is not required to release exploration results. According to Yukon Exploration and Geology 2010, Kinross spent \$14 000 000 exploring on both the White Gold and JP Ross properties (Minfile Occurrence #1150 160) located approximately 28 km to the northeast.

#### Capsule Geology

The geology of the Stewart River Area was remapped by J. Ryan and S. Gordey (2004) of the Geological Survey of Canada beginning in 2000 as a component of the Ancient Pacific Margin NATMAP Project. The NATMAP Project is an interagency project initiated by the Geological Survey of Canada, Yukon Geology Program (now Yukon Geological Survey) and British Columbia Geological Survey Branch to understand the composition, relationships and metallogenic of poorly understood pericratonic terranes lying between the ancestral North American margin and those known with more certainty to be tectonically accreted. The Stewart River component focuses on the Yukon-Tanana terrane, comprising complexly deformed mostly (?) Paleozoic meta-igneous and metasedimentary rocks. In 2005 S. Gordey and J. Ryan released a geological compilation map for the Stewart River area. The map units generally remained the same as the 2004 geology map but age dates were changed to reflect new dates obtained through geochronology data.

J. Ryan reported that the Stewart River area is underlain by twice-transposed, amphibolite-facies gneiss and schist of mostly (?) Paleozoic age. These are intruded by younger plutonic rocks (Jurassic, Cretaceous and Eocene) and overlain by upper Cretaceous volcanic rocks. Metasiliclastic rocks are widespread and dominated by psammite and quartite, with lesser pelite and rare conglomerate. Preliminary detrital zircon geochronology and geochronology for plutonic rocks constrain the siliclastic rocks to the Middle Paleozoic. Amphibolite interdigitates with and stratigraphically overlies the siliclastic rocks. Marble horizons ((?) reefs) occurs within the amphibolite and siliclastic rocks. Orthogneissic rocks with diorite, tonalite and granodiorite protoliths intrude both the siliclastic and amphibole assemblages; it is interpreted as a subvolcanic intrusive complex.

Geological mapping by J. Ryan and S. Gordey shows the area surrounding the occurrence consists of a sequence of Devonian to Mississippian quartz-mica schist, mafic schist and amphibolite intruded by Permian K-feldspar augen orthogneiss. The occurrence occurs as a topographic high surrounded by drainages with a hundred year history of placer gold mining. This occurrence is separate from the Black Fox (Minfile Occurrence #1150 014) occurrence described by D.D. Cairnes in his 1917 report.

Underworld Resources optioned the property from S. Ryan as part of a package which included the White Gold property (Minfile Occurrences #1150 0165, 166 etc.) located about 22 km to the northwest. S. Ryan systematically soil sampled, trenched and carried out magnetic geophysical surveys the property since first staking it in 2004. The best target discovered to date is the Thistle vein (location of this occurrence), a 0.4 to 1.0 m thick quartz vein that hosts visible gold mineralization. The veins are located within a 700 long by 150 m wide gold in soil anomaly (20 to > 1 000 ppm gold). Mechanical trenching by Underworld Resources in 2007 exposed a 250 m strike length. Grab samples collected along its length returned grades of greater than 10, 7.6, 4.3, 3.7, 3.6, 1.9 and 0.6 g/t gold. A 30 cm thick, sulphide rich, foliation parallel offshoot of the vein returned an assay greater than 10 g/t gold. The host rock adjacent to the vein returned assays of greater than 10 and 0.5 g/t gold respectively. The Thistle vein is open along strike to the east and west.

Underworld Resources never publicly released results of the additional soil sampling and trenching programs carried out on the Black Fox claims in 2008 and 2009. Since its take-over of Underworld Resources, Kinross Gold has also not publicly released any results pertaining to these claims.

#### References

CAIRNES, D.D., 1917. Geological Survey of Canada, Memoir 97.

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).

GORDEY, S.P. AND RYAN, J.J. 2005. Geology, Stewart River Area (115N, 115 O and part of 115J), Yukon Territory; Geological Survey of Canada, Open File 4970, scale 1:250 000.

KINROSS GOLD CORP., May/2011. Web Site: www.kinross.com.

MORTENSEN, J.K., 1990. Geology and U-Pb geochronology of the Klondike district, west-central Yukon Territory. Canadian Journal of Earth Sciences, vol. 27, p. 903-914.

RYAN, J.J. AND GORDEY, S.P., 2002: Bedrock geology of Yukon-Tanana terrane in southern Stewart River map area, Yukon Territory; Geological Survey of Canada, Current Research 2002-A1, 11 p.

Ryan, J.J. ET AL., 2003: Update on bedrock geological mapping of the Yukon-Tanana terrane, southern Stewart River map area, Yukon Territory; Geological Survey of Canada, Current Research 2003-A9, 7 p.

Ryan, J.J. AND GORDEY, S.P., 2004; Geology Stewart River Area (Parts of 115N/1, 2, 7,8 and 115O/2-12), Yukon Territory; Geological Survey of Canada, Open file 4641, scale 1:100 000.

RYAN, S., Oct/2005. Assessment Report #094675 by S. Ryan.

RYAN, S., Apr/2006. Assessment Report #094656 by S. Ryan.

RYAN, S., Apr/2007 Assessment Report #094773 S. Ryan.

SHIVES, R.B.K., ET. AL. (2002): Airborne multisensor geophysical survey, Stewart River area, Yukon Territory, Phase 1 and 2 (parts of 115N and 116B); Geological Survey of Canada, Open file 4311. (also Yukon Exploration and Geological Services Division, Open File 2002-17D).

SRK CONSULTING (CANADA) INC. Mar/2010. White Gold Property, Dawson Range, Yukon, Canada. By L Weirshauser, M Nowark and W. Barnett. (Project Number 2CU003.000).

UNDERWORLD RESOURCES LTD, Jul/2009. Assessment Report # 095090 by H.K. Paulsen.

UNDERWORLD RESOURCES LTD, Apr/2009. Assessment Report #095114 by S. Ryan.

UNDERWORLD RESOURCES INC., Jun/2010. Assessment Report #095338 by H.K. Paulsen.

UNDERWORLD RESOURCES LTD, News Release, 16 May/2007, 4 Sep/2007, 12 Feb/2008, 17 Jun/2008.

UNDERWORLD RESOURCES INC., Nov/2009. Web Site: www.underworldresources.com

YUKON EXPLORATION AND GEOLOGY 2005, p. 30; 2007, p. 15; 2008, p. 30; 2009, p. 53.

#### **Work History**

Date	Work Type	Comment	
12/31/2009	Geochemistry	Grid based and spur and ridge sampling.	
12/31/2009	Trenching	Two trenchs dug on northern slope of Thistle mountain.	
12/31/2008	Geochemistry	Additional sampling.	
12/31/2008	Ground Geophysics	Additional surveys.	
12/31/2007	Trenching	Exposed 250 m of Thistle vein.	
12/31/2006	Geochemistry		
12/31/2006	Ground Geophysics		
12/31/2006	Trenching		
12/31/2005	Geochemistry	More detailed survey.	
12/31/2005	Ground Geophysics		
12/31/2005	Trenching	On Thistle vein.	
12/31/2004	Geochemistry	Two reconnaissance lines.	

## **Assessment Reports that overlap occurrence**

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
097257	2018	Geochemical, Geophysical and Airborne Imagery Report on the Black Fox Property	Orthophoto - Airphotography, Rock - Geochemistry, IP - Ground Geophysics, Resistivity - Ground Geophysics		
097133	2017	Airborne Geophysical Assessment Report: Dighem Aerial Survey	Electromagnetic - Airborne Geophysics		
096230	2011	Geochemical Sampling, Geophysical Surveys, Petrographic Studies and Diamond Drilling at the Touleary Property	Electromagnetic - Airborne Geophysics, Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Diamond - Drilling, Drill Core - Geochemistry, Drill Core - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Petrographic - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Prospecting - Other, Prospecting - Other	10	1871.80
096207	2010	High resolution Airborne Geophysical Report on the White and the Black Fox Group	Electromagnetic - Airborne Geophysics, Gamma-Ray Spectrometry - Airborne Geophysics		
<u>096206</u>	2010	Geological and Geochemical Report on the White Groups and Black Fox	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other, Backhoe - Trenching		
095338	2009	Report on the 2009 Diamond Drill, Geological and Geochemical Work Program on the White Gold, Black Fox, Yellow, JP Ross and Maisy Properties	All Weather Road - Development, Surface, Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Detailed Bedrock Mapping - Geology, Metallurgical Tests - Lab Work/Physical Studies, Prospecting - Other, Environmental Assessment/Impact - Studies, Resource Estimate - Studies, Backhoe - Trenching	94	25891.67
095150	2009	Assessment Report Descibing Geochemical Sampling and Prospecting at the Touleary Property	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other		

<u>095090</u>	2008	Drilling - Geochemical - Geological Report on the BLACK FOX CATH CATHY CCC WHITE and WS Claims	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Backhoe - Trenching, Hand - Trenching	27	3433
<u>095114</u>	2008	Geophysical - Geochemical Report on the BLACK FOX 1-52 Claims	Soil - Geochemistry, Magnetics - Ground Geophysics		
<u>094773</u>	2006	Geophysical - Geochemical - Trenching Report on the BLACK FOX 1-38 Claims	Rock - Geochemistry, Soil - Geochemistry, Magnetics - Ground Geophysics, Line Cutting - Other, Backhoe - Trenching		
<u>094656</u>	2005	Geophysical - Geochemical - Trenching Report on the BLACK FOX 1-38 Claims	Rock - Geochemistry, Soil - Geochemistry, Magnetics - Ground Geophysics, Line Cutting - Other, Backhoe - Trenching		
<u>094675</u>	2004	Geochemical Report BLACK FOX 1-10 Claims	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other		
092982	1991	Geochemical Report on the FAR 1-22 and NEAR 1-40 Claims	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		

# **Related References**

Number	Title	Page(s)	Reference Type	Document Type
ARMC016531	Geochemical map - 1150/3 - Thistle Creek		Property File Collection	Geochemical Map
ARMC016530	Coloured geology map - 1150/3 - Thistle Creek		Property File Collection	Geoscience Map (Geological - Bedrock)