



Occurrence Details

Occurrence Number: 1150 013
Occurrence Name: McKinnon
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 6/14/2025 6:07:55 PM

General Information

Secondary Commodities: antimony, gold, silver
Aliases: White Gold
Deposit Type(s): Porphyry-related Au
Location(s): 63°7'17" N - 139°25'29" W
NTS Mapsheet(s): 115003
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

*This occurrence was recently assigned to the Donahue occurrence (Minfile Occurrence #1150 174) but it has since been broken out and returned to its original assigned occurrence number i.e. Minfile Occurrence # 1150 013. The location of this occurrence has been verified in the field by two different exploration companies.

Staked as Star City claim (4613) in Sep/00 by N.J. Donahue and J.J. McKinnon, who explored with a 15 m adit, 9 m x-cut and 4 m shaft in 1901. The Miners Dream claim (4633) was staked nearby in Jan/01 by C.J. Hahnamon and the Sunset claim (4625) was staked about 3.2 km south, close to the Yukon River, in Oct/00 by Donahue.

The Greg cl 1-90 (Y65660) were staked immediately south in Sep/72 by Canadian Occidental Petroleum Ltd, which explored with grid soil sampling and mapping in 1973. F. Stretch staked Disc cl 1-2 (YB39468) and Chase cl 1-6 (YB39470) to the west in October, 1990, and trenched on the Chase claims in 1991. The Stretch 1-10 cl (YB45067) and single claims Curly (YB45083), Larry (YB45084), Moe (YB45085) and Gerb (YB45086) were added by Nor-Court Sand and Gravel Ltd in Jul/93.

In Jun/2005 S. Ryan staked WS cl 1-28 (YC36053) 4 km to the southwest.

In Jun/2008 ATAC Resources Ltd staked GG cl 1-66 (YC76232) immediately south of this occurrence and east of the WS 1-28 claims.

Restaked within White cl 304-376 (YC84213) in Oct/2008 by Underworld Resources Ltd as part of an option agreement between the company and S. Ryan. Ryan had earlier staked a large block of White claims to the north (see Minfile Occurrence #1150 174) and optioned the claims and other neighboring claim holdings (including the WS claims) to Underworld Resources in May/2007. At the same time Underworld Resources surrounded the GG claims with WS cl 29-133 (YC84108) and staked CCC cl 1-4 (YC44997) to the south on Thistle Creek. In 2009 Underworld Resources carried out regional geological mapping, prospecting and soil sampling programs around the McKinnon occurrence. Initial results led the company to dig 10 trenches in and around the occurrence followed by 3 diamond drill holes (487.7 m) collared on the occurrence.

In Jun/2009 ATAC Resources optioned a 50% interest in the GG claims to Arcus Development Group Inc. Arcus immediately hired ATAC to conduct geological mapping, prospecting and auger soil sampling programs on the claims.

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 located in the Dawson region of the Yukon. In Apr/2010 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 60 km to the northeast. Property-wide geological mapping, airborne geophysical surveys, soil sampling survey and over 25 000 m of diamond drilling was completed on the two properties.

In 2010 Arcus Development Group trenched and sampled on the GG claims. In 2011 the company carried out an airborne geophysical survey over the property.

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 a 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 quartzite, 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 that the occurrence area is underlain by a sequence of Devonian to Mississippian age quartzite, metaconglomerate and quartz-mica schist intermixed with Devonian to Mississippian orthogneiss. According to accounts recorded by Donahue & McKinnon(the original stakers) the original discovery/occurrence consists of a sulphide-quartz zone up to 4.6 m wide bounded by porphyritic rock. They reported that the zone was mineralized with free gold plus silver and antimony values. Early prospecting programs carried out by S. Ryan and later Underworld Resources failed to relocate the occurrence site

Visible gold mineralization was discovered at the McKinnon gold zone/occurrence By Underworld Resources during the 2009 regional mapping and sampling program. Gold mineralization was observed within altered and quartz veined meta-intrusive exposed on an newly built access road leading from the Thistle Creek barge landing to the Golden Saddle deposit (Minfile Occurrence #1150 165). The host lithologies alteration and mineralization observed at McKinnon are analogous to the Golden Saddle deposit. Follow-up trenching uncovered a quartz breccia which averaged 60.2 g/t gold and 354 g/t silver in three samples.

The three 2009 diamond drill holes were designed to test the gold bearing breccias located at the McKinnon zone. Diamond drill hole MK09-01 returned 1.40 g/t gold over 1.5 m while hole MK09-02 returned 1.63 g/t gold over 1.51 m. Hole MK09-03 did not return any significant values (Underworld Press Release – Oct 28/2009).

Soil and rock sampling carried out in 2009 by Arcus Development Group on the GG claims (now known as the Green Gulch property), outlined 3 areas of elevated gold values spread out along Underworld Resource's access road which cuts across the northwest side of the GG claims. Showing A located approximately 800 m south of the McKinnon occurrence returned three gold in soil values from 128 to 251 ppb gold. In 2010 the company dug four trenches on the claim group. A 20 m section of trench 2 (GG-10-22 -no location given) yielded a weighted average grade 0.294 g/t gold.

Since its take-over of Underworld Resources, Kinross Gold has not publicly released any detailed results from the White Gold project area.

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Work History

Date	Work Type	Comment
12/31/2009	Drilling	Number of holes drilled: 3 Amount of work done: 487.7 METRES Three 3 holes (487.7 m) collared on the McKinnon showing.
12/31/2009	Geology	
12/31/2009	Geochemistry	Using an auger.
12/31/2009	Trenching	Ten trenches dug on McKinnon soil anomalies.
12/31/1900	Other	Explored with a 15.2 m adit, a 9.1 m x-cut and a 3.6 m shaft.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
097276	2018	2018 Geochemical, Geophysical, Geological and Drilling Assessment Report	Orthophoto - Airphotography, Diamond - Drilling, Reverse Circulation - Drilling, Rock - Geochemistry, IP - Ground Geophysics, Resistivity - Ground Geophysics	60	18647.05
097246	2017	Geochemical, Geophysical, Geological, and Drilling Assessment Report: White Gold Project	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Orthophoto - Airphotography, Diamond - Drilling, Reverse Circulation - Drilling, Rock - Geochemistry, Soil - Geochemistry	35	5272.19
096402	2012	2012 Exploration Report, White Gold Claim Blocks	Rock - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Gamma-ray Spectrometry - Ground Geophysics, Gamma-ray Spectrometry - Ground Geophysics, Prospecting - Other, Prospecting - Other, Backhoe - Trenching, Backhoe - Trenching		

096215	2011	White Gold, 2011 Surface Exploration Report	Rock - Geochemistry, Rock - Geochemistry, Silt - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Regional Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Prospecting - Other, Prospecting - Other, Backhoe - Trenching, Backhoe - Trenching		
096207	2010	High resolution Airborne Geophysical Report on the White and the Black Fox Group	Electromagnetic - Airborne Geophysics, Gamma-Ray Spectrometry - Airborne Geophysics		
096206	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
095090	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

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)