



Occurrence Details

Occurrence Number: 115I 111

Occurrence Name: Antoniuk

Occurrence Type: Hard-rock

Status: Deposit

Date printed: 6/14/2025 6:11:10 PM

General Information

Primary Commodities: gold

Secondary Commodities: copper, silver

Aliases: Mt. Freegold, Rambler

Deposit Type(s): Porphyry Subvolcanic Cu-Au-Ag (As-Sb)

Location(s): 62°16'13" N - -137°5'56" W

NTS Mapsheet(s): 115I06

Location Comments: Coordinates provided by Triumph Gold in 2020.

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

First staked as Theodore and Rock cl (15625) by A. Brown and G. Fairclough (Yukon Gold Mining Syndicate) in March 1931. Optioned in November 1936 to Mount Freegold Yukon Mining Ltd., which explored a vein on the Theodore cl with two adits (44.2 m and 10.7 m).

Re-staked as Mayflower cl and Donalda cl 1-8 in November 1939 by G. Fairclough, who carried out trenching. Optioned to Gorski Gold Mines Ltd. in September 1951, which worked only on adjoining ground. Optioned to Ormsby Mines Ltd. in February 1958, which surveyed the claims and took them to lease in 1959. Ormsby was amalgamated into Discovery Mines Ltd. in 1964. Discovery carried out soil sampling in 1974, then optioned the property in 1975 to Rayrock Mines Ltd and Ashland Oil Canada Ltd., which explored with 10 drill holes (1,393.2 m) in 1975.

Esperanza Explorations Ltd. added Gnat cl 1-102 (YA24934) to the north and east in August 1979 and optioned the property in February 1980. The Esperanza option was acquired in May 1980 by Arctic Red Resources Corporation, which carried out geological mapping and grid soil sampling in 1980 and IP, magnetometer and VLF- EM geophysical surveying, trenching and drilled 10 holes (1,193 m) in 1981 before dropping the option.

The Discovery Mines property was optioned to Archer, Cathro and Associates (1981) Ltd. in April 1985 and subsequently sold to Nordac Mining Corporation. Nordac carried out bulldozer trenching, drilling of 8 percussion holes (607 m) and metallurgical testing later in the year in a joint venture with Permian Resources Ltd. In 1986, the joint venture staked Peggy cl 1-5 (YA95146) adjoining the existing claim block to the south and drilled 24 diamond drill holes (2,189 m) to prove up ore reserves and conducted a metallurgical study that was partly funded by the Energy, Mines and Resources Branch of the Canadian Government. In 1987, Nordac changed its name to Big Creek Resources Ltd. and carried out bulldozer trenching and excavator test pitting on the deposit and geochemical sampling of the Peggy claims in a joint venture (Big Creek Joint Venture) with Rexford Minerals Ltd. In 1988, the joint venture drilled 35 shallow rotary holes (1,087 m) to prove-up near surface reserves that might be suitable for a test heap leach operation.

Harris and Associates staked the adjacent Ant etc. cl (YB38142) in July 1993 carried out rock and soil geochemical surveying before transferring them to Richlode Investments Corporation in September 1993. Richlode carried out additional reconnaissance soil and rock sampling in October 1993 and added another Ant claim and six fractional claims (YB46568) in December 1993.

In June 1994, Richlode staked seven more fractional Ant claims and carried geochemical sampling, geological mapping and prospecting on the property. In August 1994, Redell Mining Corporation optioned this and other adjoining properties in the area (Margarete and Red Fox; MINFILE occurrences 115I 053 and 052). In November 1996, the Ant claims were transferred to Redell Mining Corporation, which at this time was developing the adjoining Laforma deposit (MINFILE occurrence 115I 054). All work on the Laforma deposit and adjoining properties was later halted.

In April 1998, the company re-organized and changed its name to FM Resources Corporation, which carried out soil and rock geochemical sampling, trenching and prospecting in peripheral areas of their combined claim holdings during 1999. In 2000, FM returned 76 of 80 claims comprising the Goldstar/Vindicator properties, located to the west, to their original owners and carried out linecutting later that year and limited geological mapping in 2001 on the Peggy and Ant claims and additional line cutting on the Ant claims in 2002. Both these claim groups adjoin the quartz mining leases that encompass the Antoniuk (this occurrence) and the Laforma deposit.

Northern Freegold Resources consolidated the claims in 2006 as part of their Golden Revenue property and performed a property wide VTEM and magnetic airborne survey, including the Antoniuk deposit.

Triumph Gold acquired Northern Freegold Resources in 2015 and the property that includes the Antoniuk deposit is now termed the Freegold Mountain Project.

Regional & Property Geology

The occurrence is partly underlain by Yukon-Tanana Terrane (YTT). The rocks of the YTT in this region consist of Early Mississippian metamorphic rocks separated into meta-sedimentary and meta-igneous suites. The meta-sedimentary suite consists of micaceous quartz-feldspar gneiss, schist and quartzite. The meta-igneous package is comprised of biotite-hornblende feldspar gneiss and coarse-grained granodiorite orthogneiss with lesser amphibolite.

The YTT basement rocks are cut by numerous plutonic and volcanic events from the Mesozoic (Murray & Friend, 2018), including:

1. Early Jurassic Long Lake monzonite to syenite plutonic suites;
2. Mid-Cretaceous Mount Nansen Suite andesite to diorite;
3. Mid-Cretaceous Whitehorse granodiorite, quartz monzonite and granite;
4. Late Cretaceous Casino quartz monzonite;
5. Late Cretaceous Prospector Mountain syenite; and,
6. Quartz feldspar and feldspar hornblende porphyry dykes and plugs.

Mineralization & Results

Early work on the claims was directed toward the northeast striking, steeply west-dipping Rambler vein located on the west side of the claims. A geochemical survey in 1974 discovered the Antoniuk mineralization (AR 092161). Mineralization is present within and adjacent to an intrusive diatreme breccia complex of the early Cretaceous Dawson Range plutonic suite. The breccia and surrounding wall rock are cut by fractures and vuggy 5 mm to 30 cm quartz veins containing minor arsenopyrite, chalcopyrite, tetrahedrite and sulphosalts (AR 092161; AR 062304).

The 1974 and 1980 soil sampling outlined a 430 by 490 m area, open to the south, with anomalous response in arsenic (over 250 ppm) and gold (over 160 ppb) on the northeast side of the claims.

Drilling in 1975 and 1981 outlined a 300 by 450 m area (open to the south) with gold values averaging about 0.5 g/t Au. The best drill intersection was 2.3 g/t Au and 11.7 g/t Ag across 21.0 m. The target, which is located in an area of Yukon that escaped Pleistocene glaciation, is strongly weathered and oxidized to depths of at least 60 m (AR 062304).

Reserves subsequent to the 1987 drill program were calculated at 3,877,900 tonnes grading 1.16 g/t Au, using a cut-off grade of 0.5 g/t Au (AR 062304).

Harris's 1993 geochemical survey on the adjacent Ant claims outlined a coincident Au-Ag-As soil anomaly . Richlode continued Harris's work and in October 1994, three soil lines were run over the southern part of the property . A 250 m wide anomaly was outlined on the ridge top northeast of the Antoniuk property boundary . The multi-element anomaly returned values of 40 to 291 ppb Au, with one sample peaking at >6,667 ppb Au, 1.7 to 12.0 ppm Ag and 444 to 2,338 ppm As. Six rock samples collected from Ant cl 5 and 7F and located northeast of the soil anomaly assayed from 6 to 222 ppb Au and 0.2 to 18.6 ppm Ag. The rocks were collected from a felsic breccia body similar in mineralogy to that on this property (AR 093189).

Work History

Date	Work Type	Comment
12/31/2001	Geology	
12/31/1998	Geochemistry	Also soil sampling.
12/31/1998	Trenching	
12/31/1998	Other	
12/31/1994	Geochemistry	
12/31/1994	Geochemistry	
12/31/1994	Other	
12/31/1993	Geochemistry	
12/31/1993	Geology	
12/31/1993	Geochemistry	
12/31/1988	Drilling	Thirty-five holes, 1,087 m.
12/31/1987	Trenching	
12/31/1986	Drilling	Twenty-four holes, 2,189 m.
12/31/1985	Drilling	Eight holes, 607 m.
12/31/1985	Lab Work/Physical Studies	
12/31/1985	Trenching	
12/31/1981	Drilling	Ten holes, 1,192.99 m.
12/31/1981	Ground Geophysics	Also magnetic and VLF surveys.
12/31/1980	Geology	
12/31/1980	Geochemistry	
12/31/1975	Drilling	Ten holes, 1,393.24 m.
12/31/1974	Geochemistry	
12/31/1959	Other	Took claims to lease.
12/31/1939	Trenching	
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/1970	Geology	
12/13/1970	Geochemistry	Silt and stream sampling.
12/13/1936	Development, Underground	Dug two adits, 44.2 m and 10.7 m.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
094745	2006	2006 Geophysical Assessment Report on the Freegold Mountain Property	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
094226	2000	Linecutting and Geology Program Completed at the Mt. Freegold Property	Regional Bedrock Mapping - Geology, Line Cutting - Other		
094141	1999	Geochemical Survey and Trenching Program Completed at the Mt. Freegold Property	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other, Mechanical - Trenching		

097013	1994	Redell Mining Corp's Laforma Mine at Mount Freegold, brochure	Property Evaluation - Other		
093189	1994	Exploration Report on the Freegold Mountain Project Freegold Mountain Area	Rock - Geochemistry, Soil - Geochemistry, Line Cutting - Other, Prospecting - Other, Mechanical - Trenching		
062304	1988	Report on the Antoniuk Property, Mount Freegold Area	Data Compilation - Pre-existing Data		
092127	1987	Trenching, Geophysical and Diamond Drilling Program on the Goldstar Property	All Weather Road - Development, Surface, Diamond - Drilling, Rock - Geochemistry, EM - Ground Geophysics, Magnetics - Ground Geophysics, Mechanical - Trenching	17	741.10
091802	1985	Geochemical and Geological Report on the Nat 1-29 and 30F-33F Claims Mt. Freegold	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Regional Bedrock Mapping - Geology, Line Cutting - Other, Prospecting - Other, Hand - Trenching, Mechanical - Trenching		
060608	1970	Reconnaissance Geology and Geochemistry Free Mineral Claims, Freegold Mountain Area	All Weather Road - Development, Surface, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Property Evaluation - Other		
060200	1970	Report on the Geophysical and Geochemical Surveys Ram and Bow Claim Groups	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC006756	1981 Final report for Freegold project		Property File Collection	Report
ARMC006792	Figure F2 - Geology - Freegold project - Mount Freegold area		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004690	Rough draft - YG report - Mount Freegold		Property File Collection	Report
ARMC007576	Property submission report - Mt. Freegold		Property File Collection	Report
ARMC012160	Report on 1974 field work - Northern mineral assistance grant - Gold Star, PEG, ADD, AU and AG groups		Property File Collection	Report
ARMC012159	Report on the Gold Star group 115-I-6, Whitehorse Mining District, Yukon Territory		Property File Collection	Report
ARMC012166	Report on the Gold Star group 115-I-6, Whitehorse Mining District, Yukon Territory		Property File Collection	Report
ARMC012179	Progress reports: June 4, June 24, July, & August 1974 - Freegold Project		Property File Collection	Report
ARMC012170	Provisional geology map of Mt. Freegold		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC012167	Geochemical map of Potassium 40 - Contour interval 5 cps - Big Creek area - Carmacks - Job No. 1150 - Fig. No. 5		Property File Collection	Geochemical Map
ARMC012184	Sketch maps - Trenches A - L & P-U - Freegold project		Property File Collection	Geoscience Map (General)
ARMC012177	Isomagnetic plan (gammas) - Freegold Mountain Project - Fig. 4		Property File Collection	Geophysical Map
ARMC012174	Map of total isomagnetic plan - Big Creek area - Carmacks - Job No. 1150 - Fig. No. 4		Property File Collection	Geophysical Map
ARMC011333	Soil geochemical map - Arsenic values - Area A - Freegold project		Property File Collection	Geochemical Map
ARMC011331	Soil geochemical map - Copper values - Area A - Freegold project		Property File Collection	Geochemical Map
ARMC011332	Soil geochemical map - Integrated metal values for Cu, Pb, As - Area A - Freegold project		Property File Collection	Geochemical Map
ARMC011330	Soil geochemical map - Lead values - Area A - Freegold project		Property File Collection	Geochemical Map
ARMC011356	Magnetometer survey - East sheet - Freegold project		Property File Collection	Geophysical Map
ARMC016627	Land and disposition and mineral deposits chart - Freegold - Big Creek area		Property File Collection	Geoscience Map (General)
ARMC012175	Magnetometer values (gammas) - Freegold Mountain project - Fig. 3 with notes		Property File Collection	Geophysical Map
ARMC012176	Magnetometer values (gammas) - Freegold Mountain Project - Fig. 3 with notes		Property File Collection	Geophysical Map
ARMC011457	Map legend - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC011339	Magnetometer survey - West sheet - Freegold project		Property File Collection	Geophysical Map
ARMC01				Geoscience Map

ARMC01 2182	Provisional map 115-I/6 - Stoddart Creek with notes		Property File Collection	Geoscience Map (General)
ARMC01 2185	Provisional map 115-I/6 - Stoddart Creek with notes on Traverse M22-6		Property File Collection	Geoscience Map (General)
ARMC01 2161	Diamond drill record - Hole No. DDH-G-1 to DDH-G-8 with cross-section maps - Mt. Freegold		Property File Collection	Drill Logs
ARMC01 2183	Field sheets for 1974 - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 2173	Flight Line Layout - Big Creek Area - Carmacks - Job No. 1150, Fig. No. 3		Property File Collection	Geoscience Map (General)
ARMC01 2168	General geological report on "Freegold Mountain" property, Whitehorse M.D., Y.T.		Property File Collection	Report
ARMC01 1461	Compilation map - Freegold Mountain		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC01 2165	Geophysical note on the magnetometer survey of portions of Freegold Mountain, Carmacks, Y.T., on behalf of Prism Resources		Property File Collection	Report
ARMC01 2164	Analyses certificate and assay results - Mt. Freegold		Property File Collection	Assays
ARMC01 1342	Geochemical soil survey - Area A - Freegold project		Property File Collection	Geochemical Map
ARMC01 1338	Geochemical survey - West sheet - Freegold project		Property File Collection	Geochemical Map
ARMC01 1341	Geochemical survey - East sheet - Freegold project		Property File Collection	Geochemical Map
ARMC01 1324	Geology & assay plan map - Trench A - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1326	Geology & assay plan map - Trench B - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1325	Geology & assay plan map - Trench C - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1323	Geology & assay plan map - Trench D - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 7713	Assay results - 1974 - Various Dynasty locations		Property File Collection	Assays
ARMC01 1322	Geology & assay plan map - Trench E - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1321	Geology & assay plan map - Trench F - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1327	Geology & assay plan map - Trench G - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1328	Geology & assay plan map - Trench H - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1329	Geology & assay plan map - Trench I - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1318	Geology & assay plan map - Trench K - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1317	Geology & assay plan map - Trench L - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1314	Geology & assay plan map - Trench P - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1316	Geology & assay plan map - Trench Q - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1315	Geology & assay plan map - Trench R - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1319	Geology & assay plan map - Trenches J & V - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 1320	Geology & assay plan map - Trenches S, T & U - Area A - Freegold project		Property File Collection	Geoscience Map (General)
ARMC01 2163	Geology and Development - Area A - Freegold Project		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC01 1344	Geochemical & magnetometer surveys - Area B - Freegold project		Property File Collection	Geophysical Map
ARMC01 1345	Geochemical & magnetometer surveys - Area C - Freegold project		Property File Collection	Geophysical Map
ARMC01 6626	Geology and mineralization chart - Freegold - Big Creek area		Property File Collection	Geoscience Map (Geological - Bedrock)

ARMC01 8194	Geochemical result sheets and laboratory reports - Freegold		Property File Collection	Assays
ARMC01 2181	Magnetometer correction graphs & base station readings - May to June 1974 - Freegold project		Property File Collection	Geophysical Map
ARMC01 1343	Magnetometer survey - Area A - Freegold project		Property File Collection	Geophysical Map
ARMC01 2169	Correspondence Re: Internal report, maps on Mt. Freegold claim groups		Property File Collection	Miscellaneous Company Documents
ARMC01 2178	Correspondence with Prism Resources Re: Gold Star group near Carmacks		Property File Collection	Miscellaneous Company Documents
ARMC01 1460	Cross section - DDH-G-1 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1459	Cross section - DDH-G-2 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1458	Cross section - DDH-G-3 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1452	Cross section - DDH-G-4 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1453	Cross section - DDH-G-5 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1454	Cross section - DDH-G-6 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1456	Cross section - DDH-G-7 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 1455	Cross section - DDH-G-8 - Mt. Freegold		Property File Collection	Geoscience Map (General)
ARMC01 2180	Field notes - Magnetometer survey for May to June 1974 - Freegold project		Property File Collection	Miscellaneous Company Documents
ARMC01 2171	Cat trenching report - Margarete, Augusta, Liberty, Gold Star, Peerless, Protection, Shearzone 1-2, Vindicator 1-2, Excelsior 1-3, Progress 1-2, Greenstone 5, Greenstone 6 claims - Gold Star group		Property File Collection	Report
ARMC01 2172	Cat trenching report - Margarete, Augusta, Gold Star claims - Gold Star group		Property File Collection	Report
ARMC01 2162	Field sheets and claim maps - Margarete zone and MJK mineral claims - Mt. Freegold		Property File Collection	Geoscience Map (General)
BROCK0 00136	Geology - Freegold project - Mount Freegold area - Fig. F2 (coloured)		Property File Collection	Geoscience Map (Geological - Bedrock)
BROCK0 00139	Report - Freegold area project - 115-I-3 & 6 - CAR and MJK claims		Property File Collection	Report
BROCK0 00141	Gold geochemistry - Freegold project - With hand drawn information		Property File Collection	Geochemical Map
BROCK0 00142	Geophysical cross sections - Lines 00, 2N, 4N, 6N, 8N, 10N, 12N - Freegold LaForma		Property File Collection	Geophysical Map
BROCK0 00143	Presidents report - Freegold Laforma - Arctic Red Resources Corp.		Property File Collection	Report
BROCK0 00146	Gold geochemistry - Freegold project - Figure F3 with handwritten information and pencil marks		Property File Collection	Geochemical Map
BROCK0 00147	Progress report Freegold project - May 22, 1981		Property File Collection	Report
BROCK0 00148	Final report - 1980 Freegold project - Mount Freegold area		Property File Collection	Report
BROCK0 00149	Report on the combined geophysical surveys on the Freegold project		Property File Collection	Report
BROCK0 00150	Trace element distribution in drill core at Mt. Freegold - Addendum to final report - 1980 Freegold project		Property File Collection	Report
BROCK0 00151	Progress report - Freegold project - June 15, 1981		Property File Collection	Report
BROCK0 00152	Progress report - Freegold project - July 8, 1981		Property File Collection	Report
BROCK0 00153	Surface plan and drill hole sections - Grid 200 and 500 - Mt. Freegold		Property File Collection	Geoscience Map (General)
BROCK0 00154	X-section - Line 2S - Holes AR-81-02, 03, 04		Property File Collection	Geoscience Map (General)
BROCK0 00155	Magnetometer survey - Area A - Freegold project		Property File Collection	Geophysical Map

