

### **Occurrence Details**

Occurrence Number: 1150 180 Occurrence Name: Nugget Occurrence Type: Hard-rock

Status: Prospect

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## **General Information**

Primary Commodities: gold Aliases: Stander, Lone Star Deposit Type(s): Orogenic Au

Location(s): 63°53'16.26" N - -139°16'8.78" W

NTS Mapsheet(s): 115014

Location Comments: Coordinates provided by Klondike Gold Corp. in 2019.

Hand Samples Available: No

Last Reviewed:

### Capsule

#### Work History

Similar to the Robin Egg occurrence (MINFILE occurrence 1150 148), the claims were originally staked as Jennie (495) in January, 1899 by F.W. Dunham and surrounded in 1899-1901 by Snowbird (496), Eldorado Lode 2 (87A), Crown Point (4161), Enterprise (4144), Independence (4145), Jennifer (495) and Gold Coin (4422). The Jennie was relocated as Jennie (5179) in September, 1901 by W. Foster, who explored with shallow shafts and trenches until 1904. The area immediately north of the Jennie claim was staked as the Homestake (10757) and Louise (10780) in July, 1908. The Jennie was re-staked as the Robin (10977) in July, 1909 and surrounded in 1909-1912 by the Lyda (11091), Shamrock (11094), Edinburough (1381), etc. claim.

Re-staked as DN cl (YA32946) by Klondike Ken Ventures Inc., which optioned the claims to Dawson Eldorado Gold EL in 1981. Dawson Eldorado carried out a photogrammetric survey in 1981 and did geological mapping and geochemical sampling in 1983-1984. In June, 1986, the property was optioned to Arbor Resources Inc., which explored with linecutting, magnetic and VLF-EM surveys in 1986 and airborne magnetic and soil surveys, grid geochemistry, EM and IP surveys and bulldozer trenching in 1987. Faith ML optioned 50% of Arbor's interests in June, 1989. In 1990, Arbor Resources performed rotary drilling and mechanical trenching on the DN claims in the vicinity of the Nugget zone between 27 Pup and Oro Grande Gulch.

In August, 1992 Kennecott Canada Inc. optioned the claims from Arbor Resources. In 1994, Kennecott carried out a reconnaissance of the entire Lone Star property (including the DN claims), including digitizing of previous data, geological mapping, rock sampling, trenching and backpack soil augering. In January, 1995 Kennecott terminated the option agreement. In January, 1996 Arbor Resources Inc. changed its name to Klondike Gold Corp and performed trenching in the Nugget area.

Klondike Gold Corp. optioned a 50% interest to Klondike Star Mineral Corp. (KSMC), which became a 50/50 joint venture. In 2004, the companies performed trenching, prospecting, geochemistry in the Nugget area. A bulk sample was also taken from historical trench 94TR02 as a 20 cm thick panel over a 4.5 m width.

In 2005, Klondike Star Mineral Corp held a 55% interest in the DN and surrounding claims and became the main operator all claims, including the Lone Star zone (MINFILE occurrence 1150 072). Trenching work and bulk sampling was continued in the Nugget zone in 2005 with six bulk samples taken from historical trench 94TR02 and trench 05TR04. In 2006, KSMC drilled 3 NQ holes at the Nugget zone and took one bulk sample from the southern end of historical trench 94TR02.

Klondike Gold Corp. resumed work in 2011 and purchased Klondike Star Mineral Corp. in 2015 to restore a 100% interest. No work was done on the Nugget zone until 2011 when Klondike Gold Corp. performed backhoe trenching at 90° to existing trenches and enlarging of existing trenches, as well as chip sampling of trenches. In 2012, Klondike Gold Corp. performed property wide prospecting, as well as contracted AECOM to provide a detailed surficial terrain map for the entire property, including the Nugget zone.

In 2015, Klondike Gold Corp. performed ground magnetics surveying, orthophoto surveying, and prospecting on the Lone Star property, including the Nugget zone. The company also performed induced polarization geophysics, chip sampling of quartz veins in outcrop and a drilled a total of seven NQ holes on the Nugget zone during the 2015 exploration program.

Klondike Gold Corp. drilled twenty-one NQ holes in two phases at the Nugget zone during the 2016 exploration program, five NQ drill holes during the 2017 program, and twenty NQ drill holes totaling 1,905.83 metres during the 2018 program. During the 2018 program, SRK Consulting Inc. was contracted to perform detailed structural and lithological mapping on the Lone Star property, including the Nugget zone. Airborne magnetics and prospecting were also performed in 2018 on the Lone Star property, including the Nugget zone. The Nugget zone, which encompasses the Nugget and Glacier Gulch (MINFILE occurrence 1150 183) occurrences, was renamed the Stander zone in 2019.

### Regional & Property Geology

The Nugget occurrence, similar to the Lone Star occurrence (MINFILE occurrence 1150 072), is located within the Klondike region, which is underlain by the Permian Klondike Schist Assemblage of the Yukon-Tanana terrane (YTT). The Klondike Schist represents a transition from plutonism to arc volcanism that has undergone greenschist facies metamorphism and consists of metaplutonic Sulphur Creek orthognesis in the west that transitions eastward to a package of metavolcanic and metasedimentary units including: felsic to mafic (quartz-mica ± chlorite) schist, graphitic schist, and quartz augen schist (PKf and PKs). Evidence of five deformation events (D1 to D5) are present in within the Klondike Schist Assemblage as a result of obduction and regional thrusting and faulting related to uplift, which have produced a visible S2 and S3 foliation fabric in the schist units.

The lithological units of the Klondike region commonly contain both large, foliaform quartz veins associated with D3 folding and thrusting and discordant quartz veins possibly associated with D4 brittle faulting. Mineralization is generally hosted in the discordant quartz veins, however, the exact mineralization age and timing in the Klondike region is currently unknown. A structural mapping program completed by SRK Consulting Inc. in 2018 on the Klondike claims in the Lone Star property area identified a newly defined "D4" fault system interpreted to be the primary conduit for gold mineralization fluids that suggests a younger mineralization age than previously assumed. The white to locally oxidized, discordant veins are generally mineralized with sulphides (pyrite, rare galena, chalcopyrite), as well as visible gold, and are rarely more than 2-3 metres thick. Where present, visible gold is commonly noted along the selvages of both fresh and oxidized pyrite grains and can also occur as free grains within the quartz veins.

# Mineralization & Results

Mineralization at Nugget in the Stander zone is commonly noted as pyrite associated visible gold contained in crosscutting, discordant quartz veins and quartz vein arrays within brittle mafic and felsic (quartz-mica +/- chlorite) schist units. These mafic and felsic schist units are in proximity to a large "D3" fault in the area (the "Nugget Fault"). Barren foliaform quartz veins are also abundant in the

In 2018, Klondike Gold Corp. re-evaluated 2015 and 2016 drill holes to confirm the presence of broad intervals of disseminated gold mineralization, similar to that noted in 2016 at the Lone Star zone (MINFILE occurrence 1150 072), that contain smaller sections of higher grade mineralization. M. Grimshaw (2018) attributes disseminated gold deposition to porosity in the schist unit developed in pressure shadows around pyrite formed during greenschist metamorphism in the region.

In 1990, Arbor Resources performed rotary drilling on the DN claims in the vicinity of the Nugget zone between 27 Pup and Oro Grande Gulch that returned anomalous gold values up to 0.1236 oz/t

Au over 5 feet.

1994 trenching by Kennecott Canada Inc. (94TR02) returned assays of 2.35 g/t Au over 12.0 metres and 26.5 g/t Au over 2.0 metres.

2004 sampling of historic trenches by Klondike Star Mineral Corp. (KSMC) in the Nugget area returned anomalous gold values up to 7.28 g/t Au over a 2.0 m continuous sample and up to 43 ppm Au in grab samples. No bulk sampling results were returned until the 2005 program. Collected samples from the 2005 program weighed between 1.4 tonnes and 2.8 tonnes and had gold grades ranging from 1.95 g/t Au to 8.61 g/t Au.

KSMC drilled three NQ holes in 2006 at the Nugget occurrence that returned high grade gold values over narrow widths, including: 27.5 g/t Au over 3.25 m, including 98.6 g/t Au over 0.9 m, in hole 06-NZ-02 and 5.89 g/t Au over 4.9 m, including 30.15 g/t Au over 0.9 m, in hole 06-NZ-03.

Regional prospecting by Klondike Gold Corp. and a regional surficial terrain mapping program by AECOM Consulting was performed in the 2012 exploration program. Several grab samples from prospecting returned anomalous gold values ranging from  $0.5 \, \text{g/t}$  Au to  $179 \, \text{g/t}$  Au.

Chip sampling of quartz veins in outcrop at the Nugget occurrence in 2015 returned anomalous gold values ranging from 1.3 g/t to 20.8 g/t over 0.2 m to 4.3 m. Klondike Gold Corp. also drilled seven NQ holes that returned significant intervals, including: 4.6 g/t Au over 7.65 m in hole EC15-01; 7.4 g/t Au over 1.4 m and 5.3 g/t Au over 6.1 m in hole EC15-02; 5.3 g/t Au over 6.1 m in hole EC15-03; and 5.7 g/t Au over 3.0 m in hole EC15-04.

In 2016, Klondike Gold Corp. drilled twenty-one NQ holes at the Nugget occurrence that encountered several significant intervals, including: 5.1 g/t Au over 14.34 m, including 147 g/t Au over 0.22 m, in hole EC16-32; 336.6 g/t Au over 0.22 m in hole EC16-54; and 3.3 g/t Au over 11.93 m, including 8.2 g/t Au over 3.3 m, in hole EC16-55. Drilling in 2018 at the Nugget occurrence consisted of twenty NQ drill holes totaling 1,905.83 metres, which returned several significant gold intersections including: 0.89 g/t Au over 23.55 m in hole EC18-222; 2.36 g/t Au over 22.86 m in hole EC18-230; and 23.5 g/t Au over 1.5 m in hole EC18-231.

Date	Work Type	Comment
8/1/2020	Geochemistry	
8/1/2020	Drilling	9 holes, 414.98 m
8/1/2020	Geochemistry	
8/1/2020	Geology	
8/1/2020	Other	
7/1/2019	Drilling	28 holes, 2,187.21 m
7/1/2019	Geochemistry	
7/1/2019	Geochemistry	
7/1/2019	Remote Sensing	
6/1/2018	Geochemistry	
6/1/2018	Airborne Geophysics	
12/13/2018	Drilling	Twenty NQ drill holes totaling 1905.83 m.
12/13/2018	Airborne Geophysics	
12/13/2018	Geology	Detailed structural and lithological mapping.
12/13/2018	Other	
12/13/2017	Drilling	Five NQ drill holes.
12/13/2016	Drilling	Twenty-one NQ drill holes.
12/13/2015	Airphotography	
12/13/2015	Geochemistry	Chip sampling of trenches.
12/13/2015	Drilling	Seven NQ drill holes.
12/13/2015	Ground Geophysics	
12/13/2015	Other	
12/13/2012	Geology	
12/13/2012	Other	
12/13/2011	Geochemistry	Chip sampling of trenches.
12/13/2011	Trenching	
12/13/2006	Lab Work/Physical Studies	
12/13/2006	Drilling	Three NQ holes.
12/13/2005	Lab Work/Physical Studies	

12/13/2005	Trenching	
12/13/2004	Geochemistry	
12/13/2004	Trenching	
12/13/2004	Other	
12/13/1996	Trenching	
12/13/1994	Geochemistry	
12/13/1994	Geology	
12/13/1994	Geochemistry	
12/13/1994	Trenching	
12/13/1994	Other	
12/13/1990	Drilling	
12/13/1990	Trenching	
12/13/1989	Trenching	
12/13/1987	Airborne Geophysics	
12/13/1987	Airborne Geophysics	And VLF-EM.
12/13/1983	Geochemistry	Regional soil sampling program.
12/13/1961	Trenching	
12/13/1960	Trenching	

**Assessment Reports that overlap occurrence** 

092969

1990

Geological and Geochemical Report on the Lone Star Property

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
<u>097066</u>	2015	Report on Diamond Drilling, Prospecting, and Ground Magnetics on the Lone Star Property, Dawson Mining District, Yukon Territory, Canada	Diamond - Drilling, Rock - Geochemistry, Magnetics - Ground Geophysics	19	1369.30
096398	2012	Diamond Drilling, Trenching, Soil Sampling, Rock Sampling, and Prospecting at the Lone Star Property	All Weather Road - Development, Surface, All Weather Road - Development, Surface, Diamond - Drilling, Diamond - Drilling, Drill Core - Geochemistry, Drill Core - Geochemistry, Rock - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Detailed Bedrock Mapping - Geology, Prospecting - Other, Backhoe - Trenching, Backhoe - Trenching	8	2762.20
094919	2007	Diamond Drilling, Rotary Drilling, Geological Mapping, Rock and Soil Geochemistry, IP Geophysics, Trenching and Bulk Sampling on the Lone Star Property	Diamond - Drilling, Percussion - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Resource Estimate - Studies, Hand - Trenching	11	1314.10
094638	2006	Diamond Drilling, Geological Mapping, Rock and Soil Geochemistry, IP Geophysics, Trenching and Bulk Sampling on the Lone Star	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Resource Estimate - Studies, Mechanical - Trenching	23	2892
094579	2005	Diamond Drilling, Geological Mapping, Rock and Soil Geochemistry, Trenching and Bulk Sampling on the Lone Star Property	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Bulk Sample - Lab Work/Physical Studies, Prospecting - Other, Backhoe - Trenching, Mechanical - Trenching	32	5429.40
094689	2004	Geological Mapping, Rock and Soil Geochemistry, Trenching and Bulk sampling on the Lone Star Property	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Bulk Sample - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Prospecting - Other, Data Compilation - Pre-existing Data, Mechanical - Trenching		
<u>093321</u>	1994	1994 Annual Report on the Klondike Gold Project	Magnetic - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Prospecting - Other, Backhoe - Trenching		
093320	1994	1994 Annual Report on the Lone Star Project	Diamond - Drilling, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology	2	397.60
093075	1992	Geological, Geochemical and Trenching Report on the Dawson Property	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other, Mechanical - Trenching		
092162	1991	Geological, Geochemical, and Trenching Report on the Lone Star Property	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Backhoe - Trenching		

Reverse Circulation - Drilling, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics, Line Cutting - Other, Data Compilation - Pre-existing Data, Mechanical -

2796

			Trenching		
092860	1989	Geological, Geochemical and Trenching Report on the Dawson Property	Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Heavy Mineral Concentrate - Lab Work/Physical Studies, Mechanical - Trenching		
092691	1988	Geological, Geochemical, Geophysical and Trenching Report on the Dawson Property	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Column Leach Test - Lab Work/Physical Studies, Heavy Mineral Concentrate - Lab Work/Physical Studies, Metallurgical Tests - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Perographic - Lab Work/Physical Studies, Prospecting - Other, Mechanical - Trenching		
092690	1988	Geological, Geophysical, Geochemical, and Trench Report for Work Performed by Mark Management Ltd. on the REEF Grid	All Weather Road - Development, Surface, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Line Cutting - Other, Mechanical - Trenching		
091760	1987	Report on Combined Helicopter Borne Electromagnetic, Magnetic, and VLF-EM Survey Bonaza-Eldorado Creek Area	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, VTEM - Airborne Geophysics		
092132	1987	Geological, Geochemical, Geophysical, Diamond and Rotary Drilling Report on the Lone Star Property	Magnetic - Airborne Geophysics, Diamond - Drilling, Rotary - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics, Mechanical - Trenching	50	5753.40
091750	1986	A Report on Magnetic, Electromagnetic and Induced Polarization Surveys	EM - Ground Geophysics, IP - Ground Geophysics, Magnetics - Ground Geophysics		
091754	1986	A Report on Magnetic and Induced Polarization Surveying	IP - Ground Geophysics, Magnetics - Ground Geophysics		
<u>091683</u>	1984	Report of 1984 Exploration on the Lone Star Property of Dawson Eldorado Mines Ltd.	Rehabilitation - Development, Underground, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Line Cutting - Other, Surveying - Other		
091535	1983	Summary Report 1983 Mapping and Interpretation Lone Star Gold Property	Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Process/Interpret - Pre-existing Data		
091399	1981	Gold Potential Evaluation Report Klondike District on Violet Gold - Quartz Property	Orthophoto - Airphotography, Cursory Property Visit - Other, Data Compilation - Pre-existing Data		
091064	1981	Summary Report of 1981 Exploration on the Lone Star Ridge Property	Orthophoto - Airphotography, All Weather Road - Development, Surface, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Heavy Mineral Concentrate - Lab Work/Physical Studies, Line Cutting - Other, Prospecting - Other, Surveying - Other, Data Compilation - Pre-existing Data, Hand - Trenching, Mechanical - Trenching		
060149	1972	Geological and Geochemical Report Yukon Quartz Mineral Claims	Silt - Geochemistry, Soil - Geochemistry		

Related References					
Number	Title	Page(s)	Reference Type	Document Type	
<u>1996-1(G</u>	Geological Compilation Maps of the Northern Stewart River Area, Klondike and Sixtymile Districts (115N/15, 16, 115O/13, 14 and Parts of 115O/15, 16)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Open File (Geological - Bedrock)	
ARMC01 2894	Report on Klondike Lode gold mines property - Dawson mining district, Yukon		Property File Collection	Report	
ARMC01 2892	Newspaper report - Search for the Klondike mother lode		Property File Collection	News Release	
1992Geol Vol3_15	Preliminary observations on the geology and geochemistry of quartz veins in the Klondike District, west-central Yukon		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper	
1991Rus hton	A fluid inclusion and stable isotope study of mesothermal gold-quartz veins in the Klondike Schists, Yukon Territory		University of Alberta	MSc Thesis	