



Occurrence Details

Occurrence Number: 1150 150
Occurrence Name: Pioneer
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 4/29/2025 7:17:28 AM

General Information

Primary Commodities: gold
Deposit Type(s): Orogenic Au
Location(s): 63°53'10.94" N - -139°13'3.23" W
NTS Mapsheet(s): 115014
Location Comments: Coordinates provided by Klondike Gold Corp. in 2019.
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Originally staked as the Pioneer (256) cl in August of 1899 by A. Wildhofer who later converted the property to a Crown grant. Subsequently surrounded by Porphyry Lode (4252) cl in May of 1900 by P. Bernstein; the Pioneer Extension (4264) by R. Wildhofer in June, 1900; and Pioneer A, B (4596, 4597) in June, 1900 by A. Wildhofer. The property was explored by shaft and hand trenches until a second surge of lode gold interest in the area in 1908 to 1911, when the Helena (10787) and Helena Fr (11982) were tied on to the west side of Pioneer by W.D. McKay and F.B. Kennedy. A 150 m adit was driven on the Pioneer claim between November, 1903 and October, 1910. In 1912, a shaft 23 m deep with a 3 m crosscut at the bottom was sunk on the Helena cl.

The area was re-staked in 1979 as the ND cl (YA49724) by Klondike Ken Ventures Inc., which did a minor amount of bulldozer trenching near the old Pioneer workings. The property was acquired in 1980 by Dawson Eldorado Gold Explorations, which carried out geological mapping, geochemical sampling and bulldozer trenching from 1981 to 1984.

In June of 1986, the property was optioned to Arbor Resources Inc. Arbor completed linecutting, magnetic, and VLF-EM surveys in 1986 and airborne magnetics, soil surveys, grid geochemistry, EM and IP surveys, and bulldozer trenching in 1987. One rotary hole was also drilled in 1987. W. Dawson tied on Tom cl (YA89142) to the southeast in May 1987.

Kennecott Canada Inc. optioned the property in August of 1992. In 1994, Kennecott carried out a reconnaissance of the entire Lone Star property (including the ND claims), which included digitizing of previous data, geological mapping, rock sampling, trenching, and backpack soil augering. Two diamond drill holes (397.6 m) were drilled on the Buckland Shear Zone located 1.5 km to the southwest (MINFILE occurrence 1150 077).

Kennecott did no significant work on the Pioneer occurrence and in January of 1995 terminated the option agreement. In January of 1996, Arbor Resources Inc. changed its name to Klondike Gold Corp. Klondike Gold Corp. optioned a 50% interest to Klondike Star Mineral Corp. (KSMC), which became a 50/50 joint venture in 2005. Klondike Star Mineral Corp held a 55% interest in the claims in 2005.

Trenching work was performed by Klondike Star Mineral Corp. (KSMC) in 2005 as part of their exploration program and three trenches were dug in the Pioneer area to expose soil and IP survey anomalies noted by Kennecott. Trenching work was performed again in 2006 to resample several historical trenches. In 2007, KSMC drilled five percussion holes totaling 522.7 m after diamond drill equipment trouble in the area. Three of the five holes were drilled near historical workings on the Pioneer occurrence and the remaining two holes were drilled to the north between the Lone Star and Pioneer Zones. Two mini bulk samples weighing 6.6 tonnes and 6.5 tonnes were also taken from historical trenches 96-Tr-17 and 96-Tr-18 in the Pioneer area during the 2007 program.

Klondike Gold Corp. resumed work in 2011 and purchased Klondike Star Mineral Corp. in 2015 to restore a 100% interest. In 2012, Klondike Gold Corp. drilled 4 NQ diamond drill holes (1381.1 m) between the Lone Star (MINFILE occurrence 1150 072) and Pioneer zones. Two NQ diamond drill holes were drilled in 2017 at Pioneer as a step-out from the main focus of the 2017 program, the Lone Star zone.

Regional & Property Geology

The Pioneer occurrence, similar to the Lone Star zone (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 orthogneiss in the west that transitions eastward to a package of metavolcanics 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 schist at the Pioneer is cut by several north-trending, vertical quartz-feldspar porphyry and plagioclase-phyric mafic dykes. Both types of dykes are locally strongly pyritized, but contain only background levels of gold. A gold-bearing quartz vein approximately 1 m wide has been followed in hand pits, shallow shafts and bulldozer trenches for about 25 m. It strikes 135 degrees and appears to be nearly vertical. Visible gold is present in the vein in one bulldozer trench. Abundant, barren foliaform lenses of metamorphic quartz also occur in the schist. A competent, brittle mafic schist (chlorite-quartz-mica) containing a network of gold-bearing, crosscutting quartz veins was intersected in the 2017 drilling performed by Klondike Gold Corp.

Mineralization & Results

The 1910 adit on the Pioneer claim intersected the gold-bearing quartz vein at a depth of about 40 m. Quartz vein material with visible gold was also reported to have been intersected by the adit at least 80 m north of the vein intersection. Two samples of pyrite and minor galena-bearing vein material on the adit dump collected by R.J. Cathro and J.K. Mortensen in 1982 and 1983 assayed 9.3 g/t Au and 4.8 g/t Au. The 1987 rotary hole intersected 3.43 g/t Au over 1.5 m.

Trenching performed by Klondike Star Mineral Corp. (KSMC) in 2006 on historical trenches in the area returned anomalous gold values up to 1269.3 ppb Au and 1035.6 ppb Au. In 2007, KSMC drilled five percussion holes totaling 522.7 m after diamond drill equipment trouble in the area. All five holes returned intersections of elevated gold values, with the highest intersections including: 0.361 g/t Au over 19.81 m, including 0.652 g/t Au over 9.14 m in hole RC07-PZ-2; 0.43 g/t Au over 3.05 m in hole RC07-PZ-4; and 1.54 g/t Au over 15.24 m, including 7.4 g/t Au over 1.52 m and 2.21 g/t Au over 1.52 m in hole RC07-PZ-5. Two mini bulk samples weighing 6.6 tonnes and 6.5 tonnes were also taken from historical trenches 96-Tr-17 and 96-Tr-18 in the Pioneer area during the 2007 program that returned average gold grades of 0.254 g/t Au and 0.118 g/t Au, respectively.

Klondike Gold Corp. drilled four NQ holes in 2012 to test the Lone Star and Pioneer area at greater depths below surface and to determine the existence of a thrust fault hypothesized to be present at 300 m depth in the target area. Two of the four holes returned elevated gold values with 1.65 g/t Au over 11.6 m, including 2.10 g/t Au and 6.8 g/t Au over 1.5 m in hole 12DDH002 and 3.12 g/t Au over 1.5 m in hole 12DDH003.

In 2017, Klondike Gold Corp. drilled two NQ holes at Pioneer as a 500 m step out along strike from the Lone Star zone that intersected gold in crosscutting quartz veins with up to 0.7 g/t Au over 10.7 m in hole LS17-95. Results from these step-out holes, as well as further infill drilling along strike of Lone Star to the east and west, extended the Lone Star Zone to 1.6 kilometer strike length. The Lone

Star zone currently encompasses Pioneer to the west, Lone Star (MINFILE occurrence 1150 072) and the O'Neil (MINFILE occurrence 1150 182) to the east for a total strike length of 4 kilometers.

Work History

| Date | Work Type | Comment |
|------------|------------------------------|--|
| 7/1/2019 | Geochemistry | |
| 7/1/2019 | Remote Sensing | |
| 12/31/1994 | Pre-existing Data | Kennecott Canada compiled all known data. |
| 12/31/1994 | Drilling | |
| 12/31/1994 | Trenching | |
| 12/31/1987 | Drilling | One hole, unknown footage. |
| 12/31/1987 | Geochemistry | |
| 12/31/1987 | Trenching | |
| 12/31/1987 | Airborne Geophysics | |
| 12/31/1986 | Ground Geophysics | Also VLF-EM survey . |
| 12/31/1984 | Geochemistry | |
| 12/31/1984 | Geology | |
| 12/31/1984 | Trenching | |
| 12/31/1983 | Geochemistry | |
| 12/31/1983 | Geology | |
| 12/31/1983 | Trenching | |
| 12/31/1982 | Geochemistry | |
| 12/31/1982 | Geology | |
| 12/31/1982 | Trenching | |
| 12/31/1981 | Geochemistry | |
| 12/31/1981 | Geology | |
| 12/31/1981 | Trenching | |
| 12/31/1979 | Trenching | |
| 12/31/1910 | Trenching | Work carried out between 1903 and 1910. |
| 12/31/1910 | Development, Underground | Work carried out between 1903 and 1910. |
| 12/13/2017 | Drilling | Two NQ diamond drill holes. Step out from Lone Star (Minfile #1150 072). |
| 12/13/2012 | Drilling | 4 NQ drill holes between Lone Star and Pioneer totaling 1381.1 m. |
| 12/13/2007 | Lab Work/Physical Studies | Two bulk samples weighing 6.5 and 6.6 tonnes. |
| 12/13/2007 | Drilling | Five holes totaling 522.7 m. |
| 12/13/2006 | Trenching | Re-sampling historical trenches. |
| 12/13/2005 | Trenching | |
| 12/13/1996 | Trenching | |
| 12/13/1987 | Ground Geophysics | Also IP survey . |

Assessment Reports that overlap occurrence

| Report Number | Year | Title | Worktypes | Holes Drilled | Meters Drilled |
|------------------------|------|--|--|---------------|----------------|
| 097066 | 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, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Detailed | 8 | 2762.20 |

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|------------------------|------|---|---|----|---------|
| | | | Bedrock Mapping - Geology, Prospecting - Other, Prospecting - Other, Backhoe - Trenching, Backhoe - Trenching | | |
| 095996 | 2011 | Trenching, Soil Sampling, Assay and Geological Mapping at the Lone Star (Klondike) Property | Rock - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Bedrock Mapping - Geology, Process/Interpret - Pre-existing Data, Process/Interpret - Pre-existing Data, Backhoe - Trenching, Backhoe - Trenching | | |
| 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 | | |
| 093321 | 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 |
| 093208 | 1993 | Assessment Report on a 1993 Prospecting, Soil Sampling, Mapping, and Drilling Program | Reverse Circulation - Drilling, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other | 1 | 99.10 |
| 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 | | |
| 092969 | 1990 | Geological and Geochemical Report on the Lone Star Property | 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 - Trenching | 45 | 2796 |
| 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, 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 | | |
| 091756 | 1986 | Geological, Geochemical and Diamond and Rotary Drilling Report on the Lone Star Property | Diamond - Drilling, Reverse Circulation - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, EM - Ground Geophysics, IP - Ground Geophysics, Magnetics - Ground Geophysics, Mechanical - Trenching | 52 | 5425.14 |
| 091683 | 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 | | |

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|------------------------|------|--|---|--|--|
| 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 |
| 1996-1(G)] | 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) |
| 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 |

| Drill core at YGS core library | | | | | |
|--------------------------------|-----------|--------------|-----------|--------|------|
| Number | Property | Year Drilled | Core Size | Photos | Data |
| 86-AOR-LS-13 | Lone Star | 1987 | NQ | 2 | 0 |