

#### **Occurrence Details**

Occurrence Number: 105M 056 Occurrence Name: Sundown Occurrence Type: Hard-rock

**Status:** Showing

Date printed: 8/6/2025 4:31:34 AM

### **General Information**

Secondary Commodities: arsenic, bismuth, gold, lead, silver, tin, tungsten, zinc

**Deposit Type(s):** Vein Polymetallic Ag-Pb-Zn+/-Au

Location(s): 63°50'9" N - -135°53'12" W

NTS Mapsheet(s): 105M13

Location Comments: Georeferenced from AR 097337 (Figure 4).

Hand Samples Available: No

Last Reviewed:

#### **Capsule**

#### **Work History**

Staked as Rainbow cl (12705) in August 1918 by L. Beauvette, who dug a few hand pits. Re-staked in May 1949 as Happy Day cl (59219) by M.H. Ewing, and in July 1956 by E. Hager as Vancouver, etc cl (62985), which was explored by S. Arbutina with hand pitting and 18.9 m of drifting by 1960. W.T. Synott tied on the Rake and Nova cl (Y14848) in May-November 1968.

Re-staked as Sundown cl 1-12 (Y56107) in August 1970 by C. Klippert. In 1978, the Cortin Project (Billiton Canada Ltd., CCH Resources Ltd., Inco Ltd.) performed a brief mapping and sampling program under an option.

Re-staked as McCoy cl 1-4 (YC01061) by F. Anderson in May 1998. Anderson staked Hatfield cl 1-6 (YC01075) later in the month.

Re-staked as Black cl 1-163 (YC02090) in November 1999 by Expatriate Resources Ltd., which carried out geological mapping, prospecting and soil sampling in 2000.

Re-staked and consolidated as Haldane cl 1-99 by Equity Exploration Consultants Ltd. who optioned the claims to Habanero Resources Inc. in 2010. Habanero carried out soil sampling at Sundown in 2011.

Alianza Minerals Ltd. entered a purchase agreement in 2018 with Equity for the Haldane claims. In 2018, they carried out bedrock mapping and soil geochemistry at the Sundown occurrence. Prospecting was carried out in 2019.

#### **Regional & Property Geology**

The Mt. Haldane area is underlain by the early Carboniferous Keno Hill quartzite. The quartzite overlies mid to late Devonian Earn Group quartz- and feldspar-phyric chloritic phyllite metavolcanics (Roots, 1997). Carbonaceous Earn Group phyllite and siltstone underlie the metavocanics. A large regional thrust fault, the Robert Service Thrust, is present in the area, which puts Keno Hill quartzite into thrust contact with Proterozoic Hyland group phyllite and schist. Numerous Triassic age metadiorite sills intrude both the Keno Hill quartzite and Earn Group rocks located around the occurrence. Several small Cretaceous age granitic dykes and intrusions also intrude the sequence (AR 097320).

Geological mapping completed by Expatriate shows that this occurrence is centred on a 3.5 to 4 m wide quartz porphyry dyke that cuts muscovite-chlorite phyllite assigned to the Yusezyu Formation of the Upper Proterozoic Hyland Group. The trace of the Robert Service Thrust lies 1 km to the north (AR 094179).

#### Mineralization & Results

The Sundown showing is located on the southern portion of the Mt. Haldane vein system. It is centered on a 4 m wide porphyry dyke that is strongly chloritized and sericitized and cut by tourmalinized veinlets. The dyke is mineralized with disseminated arsenopyrite (AR 095930).

The best grab samples from the Sundown occurrence taken in 1977 and 1978 assayed 58.0 ppm Ag and 0.3% Pb with 3 ppm W and 19 ppm Sn. Soil samples nearby range up to 2.8 ppm Ag with low values in other metals (AR 090931).

Expatriate examined the dyke and collected three samples in 2000. All three returned low gold values but a 1.40 m chip sample across the east side of the dyke that included a 1.5 cm wide quartz-chlorite vein returned 402.0 g/t Ag and 0.12% Pb. Soil sampling indicated a north trending Pb-Zn-Sb-Ag anomaly open to the north (AR 094179).

### **Work History**

Date	Work Type	Comment		
12/31/2000	Geology			
12/31/2000	Geochemistry			
12/31/2000	Other			
12/31/1978	Geology			
12/31/1960	Trenching			
12/31/1918	Trenching			
12/13/2019	Geochemistry	Prospecting grab samples.		

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12/13/2018	Geology	
12/13/2018	Geochemistry	
12/13/2011	Geochemistry	
12/13/2000	Geochemistry	Prospecting grab samples.
12/13/1978	Geochemistry	Grab and chip sampling.
12/13/1978	Geochemistry	
12/13/1978	Trenching	
12/13/1960	Development, Underground	18.9 m

# Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
097230	2018	2018 Geology and Geochemical Report on the Haldane Property	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Mechanical - Trenching		
096266	2012	Assessment Report on the Trail-Minto Claim Group Describing an Airborne Geophysical Survey	Magnetic - Airborne Geophysics		
<u>096585</u>	2012	Assessment Report on the Trail-Minto Claim Group Describing a 2012 Geophysical Interpretation and Geochemical Surveys and Interpretation	Silt - Geochemistry, Soil - Geochemistry, Process/Interpret - Pre- existing Data		
<u>094179</u>	2000	Assessment Report Describing Geological Mapping and Geochemical Surveys on yhe Black Property	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
090391	1978	Reconnaissance Geochemical Survey-Sundown Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Mechanical - Trenching		

## **Related References**

Number	Title	Page(s)	Reference Type	Document Type
GM1996- 4	Geological Map of Mt. Haldane area, Yukon (105M/13)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Geoscience Map (Geological - Bedrock)
Z	Geology of the Mayo Map Area, Yukon Territory (NTS 105M)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Bulletin