Occurrence Details

Occurrence Number: 105D 051
Occurrence Name: Hartless Joe
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 12/16/2025 7:46:51 AM

General Information

Secondary Commodities: copper, gold, lead, silver, zinc
Aliases: Ace, Queen, King, Jack
Deposit Type(s): Vein Polymetallic Ag-Pb-Zn+/-Au
Location(s): 60°54'58.19" N - -134°41'40.18" W
NTS Mapsheet(s): 105D15
Location Comments: Location marks location of 2016 drill holes on King showing.
Hand Samples Available: No
Last Reviewed: Aug 2, 2017

Capsule

WORK HISTORY

Staked as Ben cl 1-4 (Y20395) in Jul/67 by J.E. Smith, who optioned the property to Esansee Explorations Ltd which added Ben cl 5-6 (Y21026) in Sep/67 and cl 7-22 (Y24902) in May/68. In Jul/68 the company carried out soil sampling and ground magnetic and electromagnetic (EM) geophysical surveys over the occurrence area. It appears Esansee Exploration carried out a minor amount of hand trenching and rock sampling on the occurrence later in the summer.

Restaked as Joe cl 1-28 (YA61399) in Jun/81 by Valor Ventures Ltd. The western end of the claim block covered Minfile Occurrence #105D 197 (Joe Creek).

Restaked as KC cl 1-6 (YC08201) in Sep/97 by G. Grant.

R Hamel staked Hart cl 1 (YC26563) 2 km to the southwest in Mar/2004. ATAC Resources optioned the claim from Hamel in Aug/2004 and immediately added Hart cl 2-4 (YC30014).

Restaked within Les cl 1-10 (YC37081) in Nov/2004 by ATAC Resources which also staked Joe cl 1-10 (YC37091) and Hart cl 5-28 (YC37057) to the southwest at the same time. The company grouped the claims into the Hartless Joe project.

In 2005 ATAC Resources carried out reconnaissance scale prospecting, rock and stream sampling program across the property. The company also collected contour and grid soil sampling with the majority of samples collected between the Ace (this occurrence) and Grumpy (Minfile Occurrence #105D 203) occurrences.

In Jan/2006 ATAC Resources optioned the Hartless Joe project to New Shoshoni Ventures Ltd in return for shares and certain work commitments. New Shoshoni transferred the initial shares to ATAC Resources but never undertook any exploration work and the agreement was terminated in May/2007.

In 2007 ATAC Resources carried out follow-up soil sampling between the Grumpy and Les 2 showings (Minfile Occurrence #105D 203) and continued prospecting the property. Later in the season the company flew a helicopter-borne VTEM and magnetic geophysical survey over the entire project area and conducted a reconnaissance scale, ground, induced polarization and resistivity survey over the Grumpy showing.

In Mar/2008 ATAC Resources optioned the Hartless Joe project to Ferus Resources Ltd in return for cash, shares and certain work commitments. In the summer of 2008 Ferus Resources collared 3 diamond drill holes (612.2 m) on and around the Grumpy showing. In Jan/2009 Ferus terminated the option and returned the claims to ATAC Resources.

In Jan 2010 Strategic Metals paid $300 000.00 to ATAC Resources for a 100 % interest in the Hartless Joe project and 5 other properties owned by ATAC Resources. In Nov/2010 Strategic Metals staked Hart cl 29-40 (YD35289) on the east side of the property. On Jan/2011 Strategic Metals optioned the Hartless Joe property to Alix Resources Corp in return for cash and shares.

In May/2011 Alix Resources attempted to transfer its interest in the property to Caribou Copper Resources Ltd but the agreement fell through. During the 2011 exploration season Alix geologically mapped and sampled all known areas of mineralization. Alix Resources terminated the agreement in Jul/2012 and return the claims to Strategic Metals.

In 2012 Strategic Metals carried out limited rock sampling on the Joe 4, Les 7 and Ace showings and contour soil samples over the central and northern parts of the property. A drill pad was constructed near the center of the Grumpy zone but was never utilized. In Sep/2012 Strategic Metals staked Joe cl 11-12 (YC37091) on the west-central side of the property.

In Aug/2015 Strategic Metals collected a line of soil samples along the west-central side of the property, covering the Joe Creek and Joe 4 showings. The company also collected soil and rock samples along a line trending west-northwest between the Les 2 and Les 7 showings. In Oct/2015 the company flew a LIDAR survey over the property.

In Jul/2015 Strategic Metals staked Joe cl 13-30 (YE43243) and Hart cl 41-46 (YD00305) on the east side of the property. In Oct/2015 the company staked fractional Les cl 11-12 in the center of the property.

In the summer of 2016 Strategic Metals carried out contour soil sampling over the northern portion of the property covered by Joe claims 13-30, staked the previous fall. The company also hand trenched the King showing (formerly called the Les 7 showing) and prospected and rock sampled other mineralized showings. As part of a Land Use Permit, a heritage study was also carried out. In Sep/2016 Strategic Metals collared 5 diamond drill holes (292.6 m) on the King showing and one hole (74.7 m) on the Queen showing.

In Jul/2016 Strategic Metals staked Joe cl 31-94 (YF49391) to the north and in Aug/2016 staked Hart cl 47-98 (YF47807) to the south. In Oct/2016 Strategic Metals added Joe cl 95-170 (YF49875) to the north and Hart cl 99-163 (YF49119) to the south.

GEOLOGY

The occurrence is area is located around Joe Mountain, approximately 29 km northeast of the city of Whitehorse in southeastern Yukon. Access is normally by helicopter although foot access could be obtained from the Alaskan Highway located approximately 25 km to the west. The Hartless Joe property abuts Land Claims Settlement lands to the west, owned by the Ta'an Kwach'an Council.

The area was mapped in detailed in the early 1990's by Hart et al. employed by the Canada/Yukon Geoscience office which was later incorporated into the Yukon Geology Program, fore runner of the Yukon Geological Survey. Hart and Hunt published a 1:50 000 geological map in 1993 and an updated versions in 1997 and 2003. S. Piercey (2005), under contract with the Yukon Geological Survey released a research paper on the geological and geochemical studies of Joe Mountain which employed Hart's nomenclature. In 2015 and 16, E. Bordet of the Yukon Geological Survey remapped parts of topographic map sheets 105E 02, 03 and 06 to the north, employing updated nomenclature. In 2016 M. Colpron et al., of the Yukon Geological Survey released a geological compilation of the Yukon.

The Hartless Joe property is located within Stikinia, the largest of the exotic terranes that have been accreted to the western margin of Ancestral North America. The Stikinia is comprised of a package of volcanics and sedimentary rocks that are cut by numerous large-scale and complex faults. All of the known mineralized showings located on the Hartless Joe property are hosted in Middle Triassic Joe Mountain Formation volcanic rocks which underlie the majority of the property. Bordet revised Harts original map units by dividing them into specific rock types, such that all similar rock types like the various basalts form their own unit. In addition Bordet separated mudstones, volcaniclastics and calcareous units into separate units. Bordet did not map any massive gabbro (Hart's unit MTJM4) in her area and the Yukon Geological Survey's 2016 geological compilation still lists this as a separate unit (MTrdJ). The gabbro intrudes other Joe Mountain volcanic rocks in the northern part of the property and likely represents a hypabyssal portion of the magma chamber that spawned the Joe Mountain volcanic suite.

In the southwest side of the property the Joe Mountain Formation rocks are overlain by Upper Triassic Aksala Formation sediments, comprised of Casca Member sedimentary rocks and the Hancock Member which forms a distinctive limey sub-unit of limestone, marble and skarn rocks. The youngest formational units are turbiditic mudstones and sandstones assigned to lower to Middle Jurassic Richthofen Formation of the Laberge Group, which overlie Aksala Formation rocks in the southwest side of the property.

A Lower Cretaceous pluton tentatively assigned to the M'Clintock Lake pluton of the Teslin Plutonic Suite intrudes Joe Mountain Formation rocks on the east side of the property. Several mid-Cretaceous rhyolite and dacite flows assigned to the Bing Creek volcanics of the Mount Nansen Group overlie Joe Mountain volcanics in the southeast portion of the property.

The Hartless Joe Property hosts gold and silver bearing epithermal style mineralization that is hosted within Joe Mountain Formation volcanics. Mineralization occurs within veins, silica- and carbonate-breccias and as stratigraphically-controlled horizons. To date mineralization has been identified in 8 separate showings; King (Les 7), Ace, Queen and Jack (this occurrence), Grumpy and Les 2 (Minfile Occurrence #105D 203) and Joe Creek and Joe 4 (Minfile Occurrence # 105D 197).

In 2007 a prospecting and soil sampling program outlined a 500 m by 250 m area on the lower slope of an alpine valley which returned mineralized talus and strong gold and copper soil anomalies. The showing was labeled the Les 7 showing. Rock samples of mineralized talus returned values up to 73 g/t gold, 183 g/t silver, 111 ppm arsenic, 3 ppm antimony, 0.35 % copper, 2.95 % lead and 0.22 % copper. Prospecting conducted in 2015 located in situ mineralization leading to the Les 7 showing to be renamed the King Showing (occurrence location).

The King showing consists of a mineralized quartz-rich band hosted in a recessive, limey and chloritic volcanic mudstone, approximately 2 to 4 m thick which forms the top of a volcanic flow. The mineralization has been traced along strike for 82 m and is either a flat-lying vein or an exhalative horizon. Sulphide minerals within the quartz-rich band include galena, pyrite and chalcopyrite. Enveloping mineralization in the mudstone unit comprises malachite, azurite, plumbojarosite (?), and disseminated pyrite. A continuous chip sample collected across the mineralized band returned 60 g/t gold, 554 g/t silver, 5.01 % lead and 0.35 % copper over 1.2 m.

Hand trenching carried out in 2016 further exposed the mineralized band. A chip sample collected at the same location as the 2015 sample returned 22.7 g/t gold, 195 g/t silver, 4.5 % zinc, 2.02 % lead and 0.22 % copper over 0.5 m. A chip sample collected 82 m along strike to the east returned 44.3 g/t gold, 375 g/t silver, 1.31 % zinc, 2.04 % lead and 0.14 % copper over 2.10 m. In 2016 Strategic Metals collared 5 diamond drill holes (292.6 m) on the King showing. Drilling intersected weakly silicified sediments containing disseminated, banded and fracture filling sulphides, down-dip of mineralized exposures which yielded low gold values, with a maximum of 1.57 g/t gold over 2.78 m in hole HJ-16-001.

The Ace showing (UTM 517128 E, 6753206 N) located 420 m southeast of the King showing was discovered by prospectors in 1967. The showing covers a 10 cm wide, flat-lying, quartz-carbonate band which has been traced northwest for approximately 95 m of strike length. It sits above a pale, feldspar-phyric latite (?) dyke and below a thin-bedded volcanic mudstone which is overlain by pillowed basalt. Sulphides comprise less than 10 % of the mineralized band and include pyrite, galena, sphalerite and rare tetrahedrite. Malachite and limonite are also present. A historic channel sample likely collected by Esansee Explorations reportedly assayed 27.4 g/t gold, 78.9 g/t silver, 2.2% lead and 1.9% zinc across a width of 10 cm. Although the exact source of this assay cannot be verified, the reported assay was quoted in the Northern Cordillera Mineral Inventory, forerunner to the Yukon Minfile Database.

Soil sampling carried out over the Ace showing returned weakly anomalous values for gold, silver and copper. Rock sampling of mineralized talus carried out in 2005 returned values up to 190.5 g/t gold and 5 780 g/t silver. In 2016 four outcrop samples collected from the 10 cm mineralized horizon, over its 95 m strike length returned an average grade 7.4 g/t gold and 462.5 g/t silver.

Prospecting carried out in 2016 led to the discovery of the Queen showing (UTM 517225 E, 6752850 N) approximately 1 km southeast of the King showing. The showing consists of a 50 cm wide flat-lying, rusty weathering, coarse crystalline quartz vein, exposed along strike for approximately 25 m. The vein is hosted in a narrow volcanic mudstone bed at the margin of a 1.1 m wide, plagioclase-phyric, latite dyke. Sulphide minerals are scarce in the vein, but fine grained native gold was observed in illite-filled fractures, with rare chalcopyrite and galena. The showing projects under a talus chute to the southwest and appears to pinch out to the northeast. A chip sample collected across the vein returned 462 g/t gold, 79.6 g/t silver, 1.02 % lead, 0.12 % zinc and 0.28 % copper. Strategic Metals tested the showing with a single diamond drill hole (HJ-16-06, 74.7 m) collared approximately 20 m down-dip of the surface exposure. The drill hole intersected calcareous mudstone near the bottom of the hole but the geochemical response for all elements of interest was low.

The Jack showing (UTM 517650 E, 6752910 N) discovered by prospecting in 2016 is located approximately 1.2 km southeast of the King showing. It consists of a 25 cm wide, flat lying, rusty weathering, coarse-crystalline quartz vein containing rare clots of pyrite, chalcopyrite and goethite, hosted in a narrow horizon of volcanic mudstone. A sample from the vein returned 4.53 g/t gold.

Work History

Date	Work Type	Comment
7/1/2020	Airphotography	Drone survey
7/1/2020	Geochemistry	
7/1/2020	Drilling	4 holes, 364.24 m
7/1/2020	Other	
12/31/1967	Geochemistry	
12/31/1967	Ground Geophysics	Also electromagnetic survey.
12/31/1967	Trenching	Collected rock samples. No assessment report filed.
12/13/2016	Drilling	Six holes, 5 holes (292.6 m) on King showing, 1 hole (74.7 m) on Queen showing.
12/13/2016	Geochemistry	Contour sampling over newly staked northern area.
12/13/2016	Trenching	Over King showing.
12/13/2016	Studies	Completed over occurrence area.
12/13/2015	Geochemistry	Rock and soil samples collected between Les 2 and Les 7 showings.
12/13/2015	Geochemistry	Line of samples collected along west-central side of property.
12/13/2015	Other	Prospected and sampled other showings.
12/13/2015	Remote Sensing	Flown over property.

12/13/2012	Geochemistry	Sampled various showings.
12/13/2012	Geochemistry	Contour samples over central and northern parts of property.
12/13/2012	Other	Drill pad cut on Grumpy showing, never used.
12/13/2011	Geochemistry	Sampled various showings.
12/13/2011	Geology	Mapped around various showings,
12/13/2008	Drilling	Three holes (612.2 m) collared on and around Grumpy showing.
12/13/2007	Airborne Geophysics	Also magnetic survey flown over entire property.
12/13/2007	Geochemistry	Grid soil sampling and prospecting.
12/13/2007	Ground Geophysics	Also resistivity survey, three lines undertaken as a test case.
12/13/2005	Geochemistry	Reconnaissance scale program, included stream sampling and prospecting.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096978	2016	Assessment Report describing Diamond Drilling, Hand Trenching, Prospecting, Geochemical Sampling and Heritage Studies at the Hartless Joe Property	Diamond - Drilling, Rock - Geochemistry, Soil - Geochemistry, Heritage/Archeological - Studies, Hand - Trenching	6	367.30
096787	2015	Prospecting, Geochemical Sampling and Lidar Surveying at the Hartless Joe Property	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other, LIDAR - Remote Sensing		
096424	2012	Soil and Rock Geochemical Sampling and Drill Pad Construction at the Hartless Joe Property	Rock - Geochemistry, Soil - Geochemistry, Line Cutting - Other		
095462	2011	Technical Assessment Report for the Hartless Joe Property	Rock - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other		
094998	2007	Assessment Report Describing Geochemical Sampling,Propsecting and Geophysical Surveys	Magnetic - Airborne Geophysics, VTEM - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry, IP - Ground Geophysics, Prospecting - Other		
094692	2005	Assessment Report Describing Prospecting and Soil Geochemistry on the Hartless Joe Property	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other		

Related References

Number	Title	Page(s)	Reference Type	Document Type
YEG2008_OV	Yukon Exploration and Geology Overview 2008	p. 12, 30, 36.	Yukon Geological Survey	Annual Report
YEG2015_04	Preliminary results on the Middle Triassic-Middle Jurassic stratigraphy and structure of the Teslin Mountain area, southern Yukon	p. 43-61.	Yukon Geological Survey	Annual Report Paper
YEG2016_1	Updates on the Middle Triassic-Middle Jurassic stratigraphy and structure of the Teslin Mountain and east Lake Laberge areas, south-central Yukon	p. 1-24.	Yukon Geological Survey	Annual Report Paper
YEG1993-pg47	Geology of the Joe Mountain Map Area (105D/15), Southern Yukon Territory	p. 47-66.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
1994-4(G)	Geological Map of Joe Mountain Map Area, Southern Yukon Territory (NTS 105D/15)	p. 213-226.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Open File (Geological - Bedrock)
2016-38	Bedrock geology map of the Teslin Mountain and East Lake Laberge areas, parts of NTS 105E/2, 3 and 6		Yukon Geological Survey	Open File (Geological - Bedrock)
8	A Transect Across Northern Stikinia: Geology of the Northern Whitehorse Map Area, Southern Yukon Territory (105D/13-16)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Bulletin
GM2003-4	Geology of Joe Mountain map area (105D/15), southern Yukon (1:50 000 scale)		Yukon Geological Survey	Geoscience Map (Geological - Bedrock)
YEG2004_16	Reconnaissance geological and geochemical studies of the Joe Mountain Formation, Joe Mountain region (NTS 105D/15), Yukon		Yukon Geological Survey	Annual Report Paper
GM1997-6	Geology of Joe Mountain map area, southern Yukon Territory, 1:50,000-scale map (105D/15)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Geoscience Map (Geological - Bedrock)
YEG2015_OV2	Yukon Hard Rock Mining, Development and Exploration Overview 2015	p. 42.	Yukon Geological Survey	Annual Report Paper
YEG2016_OV	Yukon Exploration and Geology Overview 2016	p. 52, 55, 59.	Yukon Geological Survey	Annual Report

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data

HJ-16-01	Hartless Joe	2016	NTW	0	1
HJ-16-02	Hartless Joe	2016	NTW	0	1
HJ-16-03	Hartless Joe	2016	NTW	0	1
HJ-16-04	Hartless Joe	2016	NTW	0	1
HJ-16-05	Hartless Joe	2016	NTW	0	1
HJ-16-06	Hartless Joe	2016	NTW	0	1