



Occurrence Details

Occurrence Number: 105F 014

Occurrence Name: Sonny

Occurrence Type: Hard-rock

Status: Prospect

Date printed: 4/30/2025 1:04:30 AM

General Information

Secondary Commodities: arsenic, copper, gold, lead, silver

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

Location(s): 61°28'41" N - -132°17'38" W

NTS Mapsheet(s): 105F08

Location Comments: .5 Kilometres

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

Staked as Rain cl (71341) in Sep/55 by British Yukon Exploration Ltd, which conducted mapping, rock trenching and sampling in 1956-57. Staked by P. Verslucce as Grey cl (79545) in Jul/62, as Calco and Sonny cl (88979) in Oct/64, and as Sunny cl (Y13292) in Jul/66. The Sharon cl (Y17688) were tied on to the east side by Northwest Exploration Ltd (International Utilities and Hudson's Bay Oil & Gas Company Ltd) in Apr/67, which performed prospecting and geochemical sampling in Aug/67. Verslucce added the PH cl (Y28688) to the west and southeast in Oct/68.

Staked as Reo 1-12 cl (YA46895) in Feb/80 by I. Jacobsen, who added a second group of Reo 25-32 cl (YA46919) 3.2 km to the east, and as Jo cl (YA70320) in Aug/83 by M. Tremblay. Staked as Pizza cl (YA90283) in Sep/85 by Cruiser Minerals Ltd, and as St Peter, Jessie, Sonny, GP, etc (YA99516) in Oct/87 by Golden Pavilion Resources Ltd, which carried out mapping, geochemical sampling, magnetic and VLF EM surveys, and hand trenching in 1987.

Restaked as Riba cl 1-6 (YB60978) by R. Berdahl in Aug/95. Berdahl prospected and sampled various mineralized showings located on the claim block.

Capsule Geology

The Ketza River district is predominantly underlain by thick (400m or greater) successions of calcareous sedimentary rocks ranging in age from lower Cambrian to Mississippian. The calcareous units are host to veins containing argentiferous galena and to gold rich mantos. The latter occur below an unconformity within lower Cambrian limestone and the former occur throughout the calcareous members above the unconformity. The area has undergone at least five major deformational events. Fonseca (1998) attributes the gold rich manto, magnetite-gold skarns, veins and oxide gold occurrences and deposits to mineralizing fluids ascending D4 deformation event structures. The source of the mineralizing fluids is uncertain. The only igneous rocks exposed in the area are Mississippian age volcanic and intrusive rocks which have no spacial association with the ore bodies. Fonseca, (1998) suggests there is sufficient evidence, a mid-Cretaceous intrusion sits unexposed beneath the Ketza Uplift providing a probable heat source to drive the mineralizing fluids.

Siderite mantos and chimneys containing minor pyrite, pyrrhotite, chalcopyrite, arsenopyrite and galena occur in Lower Cambrian limestone and dolomite. Six main showings on the property marked by conspicuous gossans expose sulphide mineralization over a strike length of about 1 km. Quartz veins up to 2 m thick occupy fractures around the siderite bodies and contain minor amounts of sulphide minerals.

Rich tetrahedrite float assaying 17 800 g/t Ag is rumoured to have been found in this vicinity in 1955. No mineralization was found in 1967 although a small, well defined lead anomaly was outlined on the Chalco 4 and 5 claims.

The 1987 work located 35 showings, 25 of which are mantos. The best explored manto is the main zone, it is 1.2 km long and averages about 8 m wide. It is marked by conspicuous gossans and covers a string of showings, including the Ridley, Main, Gray and Young showings. The mineralogy changes along strike from siderite, pyrite and pyrrhotite with high gold values at the Ridley and Main showings, to pyrite, arsenopyrite, pyrrhotite and galena with high silver values at the Young and Gray showings.

Trenching on the Main showing exposed material grading up to 9.9 g/t Au, while samples from the Gray showing returned up to 274.3 g/t Ag and 1.5% Pb. Soil geochemistry indicates that the highest grade part of this manto lies between the Gray and Young showings and is more than 300 m long.

Two other areas of possible economic significance include the Jessica and Sonny showings. The Jessica showing is a 14 x 250 m siderite chimney with a 5 m wide core of massive sulphides including chalcopyrite, pyrrhotite and arsenopyrite. Elevated gold values are associated with the mineralized core. At the Sonny showing, massive siderite with pyrite is coincident with a large magnetic anomaly and anomalous values of gold, arsenic, silver, zinc, lead and iron in soil. Some of the massive quartz veins also show economic potential, as they have elevated gold values and often grade into manto deposits along strike. A 1-2 m wide quartz vein adjacent to the Ridley showing contains over 1% Cu.

Berdahl prospected and sampled all of the significant showings located on the claim block. Geochemical results reaffirmed that the mainly massive siderite, oxide and massive pyrrhotite showings are anomalous in Au, As, Ag, and Cu.

References

BERDAHL, R. Mar/95. Assessment Report #093455 by R. Berdahl.

CATHRO, M.S., 1988. Gold and silver, lead deposits of the Ketza River District, Yukon: Preliminary results of field work; in Yukon Geology, Vol 2; Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 8-25.

FONSECA, ANA, 1998. Structural evolution of the Ketza River gold deposit. In: Yukon Exploration and Geology 1997, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p.77-81.

GOLDEN PAVILLION RESOURCES LTD, Feb/88. Assessment Report #092103 by B. Hall.

MORIN, J.A., 1989. Yukon Gold-Silver File. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1989-3.

NORTHWEST EXPLORATION LTD, Nov/67. Assessment Report #018888 & 018889 by A.R. Archer.

YUKON EXPLORATION 1987, p. 151-152.

Work History		
Date	Work Type	Comment
12/31/1995	Geochemistry	Also soil sampling.
12/31/1995	Other	
12/31/1987	Geology	
12/31/1987	Geochemistry	
12/31/1987	Ground Geophysics	Also VLF - EM survey.
12/31/1987	Trenching	
12/31/1987	Other	
12/31/1967	Geology	
12/31/1967	Geochemistry	
12/31/1967	Other	
12/31/1956	Geology	
12/31/1956	Geochemistry	
12/31/1956	Trenching	

Assessment Reports that overlap occurrence					
Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096091	2011	Geochemical Sampling on the Ketza Property, Kzag and Tet Claims	Soil - Geochemistry		
092103	1987	Report on Geological Mapping, Magnetometer Survey, Soil and Rock Sampling Conducted on the Susan, St Peter, Jessica, Sonny and Regan Claim Blocks	Soil - Geochemistry, Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Backhoe - Trenching		
092932	1968	Report on Silver and Gold Analysis 1967 Ketza River, Yukon, Soil Geochemistry Program for Northwest Exploreres Ltd.	Soil - Geochemistry, Soil - Geochemistry		
018892	1967	Report on 1967 Geochemcial Exploration Program, Sharon, Suzie, Terry, Verna & Janet Claims	Soil - Geochemistry, Bedrock Mapping - Geology		

Related References				
Number	Title	Page(s)	Reference Type	Document Type
ARMC008765	Summary report on the White Creek property - Susan, St. Peter, Jessica, Sonny and Regan claim blocks - Watson Lake mining district		Property File Collection	Report
ARMC014394	Photo No. 1: Boulders of galena in float locality on Rain No. 7 & 8 claims - Photo No. 2 Trenches across massive pyrrhotite and pyrite with galena, Shorty showing		Property File Collection	Photos
ARMC014391	Plan of mineralized float locality "A" - Rain No. 7 claim		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC014389	Plan of mineralized float location - Rain No. 7 claim - White Creek, Y.T. - Ketza River area		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC014390	Plan of Rain and Grey claims - White Creek - Ketza River area - Whitehorse mining dist.		Property File Collection	Geoscience Map (General)
ARMC014395	Report to unit holders - August 30, 1962 - Pelly Minerals Syndicate		Property File Collection	Report
ARMC014397	Sketch map of Rain & Grey claims area		Property File Collection	Geoscience Map (General)
ARMC014388	Sketch map showing mineralization and claims at Upper White Creek, Y.T. showing Rain and Grey Claims		Property File Collection	Geoscience Map (General)
ARMC014392	Sketch plan of Shorty showing (Locality "B") - White Creek, Y.T.		Property File Collection	Geoscience Map (General)