

# **General Information**

Secondary Commodities: arsenic, gold Aliases: Kluane, Killer Gold, Ruby Range Project Deposit Type(s): Vein Au-Quartz Location(s): 61°10'38" N - -137°44'57" W NTS Mapsheet(s): 115H04 Location Comments: .5 Kilometres Hand Samples Available: No Last Reviewed:

### Capsule

#### Work History

Staked in Aug/86 as Ruby cl 7-12 (YA95672), by United Keno Mines Ltd. The claims were one of four separate blocks of Ruby claims staked by United Keno Hill Mines Ltd, which performed mapping and geochemical sampling in 1987. In Aug/87 R. Dalbianco tied on Beth cl 1-22 (YB06101) to the south and west. In Aug/88 D. Makkonen staked Sun cl 1-24 (YB20695) on the southwest side of the Beth claims. United Keno Hill soil sampled and mapped the Ruby claims in 1989.

Silverquest Resources Ltd staked Shut cl 1-4 (YA95641) 1 km to the northwest in Aug/86. The company carried out prospecting and soil sampling later in the summer. In Jun/87 Silverquest carried out further prospecting and soil sampling and in Jul/87 staked Shut cl 5-20 (YB06888). In the spring of 1988 the company optioned the Shut claims to Pezgold Resource Corp, which conducted additional geological and geochemical surveys. In Jul/88 Pezgold staked Angus cl 1-6 (YB20532) north of Shut cl 1-4. Silverquest changed its name to Cash Resources Ltd in Dec/91.

The occurrence (Ruby cl 7-12) was restaked as Malou cl 1-6 (YB35901) in Jun/91 by J.P. Ross, who carried out reconnaissance soil sampling in 1991 and 1992. In Jan/93 Ross staked Malou cl 7-14 (YB37727) and in Jul/93 Malou cl 15-20 (YB38136). In Aug/93 Ross optioned the Malou and neighboring Delor claims (Minfile Occurrence #115H 055) to Cash Resources which combined them with the Agnus and Shut claims to form the Ruby Range project. The company carried out hand trenching, geochemical sampling and prospecting and in Sep/93 staked Malou cl 21-40 (YB38218).

In 1994, Cash Resources carried out grid soil sampling, prospecting, some geological mapping, excavator trenching and experimental geophysical surveys as part of a larger Ruby Range project. Actual work on the Malou, Shut and Angus claim groups was limited to grid soil sampling and trenching. In Jul/94 the company staked Malou cl 41-52 (YB47140).

In the spring of 1995, NDU Resources Ltd optioned the Ruby Range project (Malou, Shut, Agnus and Delor claims) from Cash Resources. A total of 14 diamond drill holes (1874 m) and 25 excavator trenches were dug on various mineralized zones located on the property. In the vicinity of this occurrence NDU drilled 3 diamond drill holes (309.7 m) and dug 2 excavator trenches (86 m) on the Ross zone and 6 excavator trenches (216 m) on the Shut zone. At the end of 1995 NDU dropped their option on the claims.

J.P. Ross staked the Hope cl 1-20 (YB54665) 8 km to the southwest in Sept/94. Ross added Hope cl 21-56 (YB57905) to his claim group in Jun/95. During the 1994, 95 and 96 field seasons Ross prospected and collected rock and silt samples on the claim block and in Apr/97 the Malou claims were transferred to Ross.

In the spring of 2002 Cash Minerals Ltd (formerly Cash Resources) reoptioned the Malou and Delor claims from Ross and again combined them with their Shut and Angus claims to form the Ruby Range project. During 2002, Cash Minerals carried out prospecting, hand trenching and geochemical soil and rock chip and grab sampling.

Archer Cathro staked the JPR claims (JPR property) 5 km to the west of the occurrence and the Mom claims (Gladstone property) 29 km to the northwest. Rockhaven Resources acquired the Ruby Range project (comprising the JPR, Gladstone and Kluane properties) in 2009 and re-examined known vein exposures at the Rikus and DalBiancho zones on the Kluane property through trenching and sampling. The company also conducted silt and soil sampling on the Gladstone and JPR properties.

#### Capsule Geology

The Kluane property is underlain by Late Mesozoic metasedimentary rocks of the Kluane schist and Latest Cretaceous to Eocene rocks of the Ruby Range suite. The Kluane schist consists of a fairly monotonous package of biotite-quartz schist, muscovite-quartz schist and rare lenses of altered and strongly deformed ultramafic rock and marble. Metamorphic grade reaches upper greenschist with local zones of amphibolite. The Kluane schist is intruded by intrusions of the Ruby Range Suite. The Ruby Range suite ranges in age from ca 65 Ma to 52 Ma and consists of biotite granodiorite and hornblende quartz-diorite (Israel et al., 2010).

Three main rock types underlie the Kluane property; 1) biotite-quartz schist of the Kluane schist; 2) migmatitic paragneiss of the Kluane schist; and 3) granodiorite to quartz-diorite of the Ruby Range suite. In the southernmost portion of the claim block, dark grey to black biotite-quartz schist dominates. The schist often forms blocky outcrops that locally weather a brown-orange colour along fractures and joints. Biotite and quartz are the main minerals with the biotite forming the main foliation surfaces. Minor amounts of garnet and staurolite are found as accessory minerals. White to slightly rusty quartz veins of varying widths are ubiquitous and many veins are laterally discontinuous and often have sigmoidal or lozenge shapes. Structurally overlying the schist is a relatively thick package of dark-grey to black and orange weathered migmatitic paragneiss. The paragneiss is characterized by biotite and quartz layers separated by more leucocratic layers comprised of feldspar and quartz. The leucocratic layers appear to be injected melts that may be derived by local partial melting or by melts sourced by intrusions that have migrated along foliation planes.

Marble lenses and rare skarn zones are found within the gneiss on the east-facing slope above Killermun Lake. Exposures of marble are typically white to pale green on both weathered and fresh surfaces, display weak silicification, and range up to 7 m thick and 100 m long. Skarns consist of medium to coarse-grained garnet and diopside. The marbles are often rusty weathering and difficult to distinguish from the surrounding gneiss, unless the rock is broken.

The northern half of the property is comprised of coarse to medium-grained, biotite, granodiorite and hornblende +/- biotite, quartz-diorite of the Ruby Range suite. These rocks generally weather a light grey to white and are locally feldspar porphyritic. Smokey grey quartz grains are common in the granodiorite and less so in the quartz-diorite. The granitic rocks are unfoliated and cross-cut all ductile fabrics found in the Kluane schist except for a strongly foliated border phase that is sporadically observed in outcrop near the boundary with the paragness. Foliation in the border phase parallels those found in the Kluane schist and has been attributed to syndeformation intrusion of the earliest phases of the Ruby Range suite (Israel et al., 2010).

Two sets of narrow unfoliated dykes have been noted on the property in several areas underlain by Kluane schist. The dykes are up to one metre wide and are best distinguished by grain size. One of these dykes, from the central part of the property, has been dated at 55.3 Ma. This overlaps a 55.8 Ma age obtained from the main phase of the Ruby Range found just outside the northern portion of the property.

Prospecting up to 2002 has identified numerous vein and float occurrences within a 5 500 by 3 500 m area in the central part of the claim group that are usually associated with north trending recessive topographic linears. These occurrences have been grouped into eight zones, only two of which (Rikus and DalBianco (Minfile Occurrence #115H 005)) contain mineralized outcrops.

The original claims were staked to cover gold anomalies following a GSC regional geochemical survey. Soil sampling by United Keno Mines outlined an Au-As soil anomaly on the Ruby claims. The anomaly was centered near the claim post for Ruby claims 7, 8, 9 and 10 and returned several values of greater than 50 ppb Au, with the highest returning 282 ppb and 135 ppm As.

Silverquestics work program on the Shut claims outlined two soil anomalies, one northeast and the other northwest of Ruby Lake which returned values up to 175 ppb Au and greater than 10 000 ppm As. A single spot anomaly located on the east side of Shut Creek returned 600 ppb Au and 870 ppm As. A grab sample collected 300 m down stream of the spot soil anomaly, consisting of brecciated schist containing disseminated arsenopyrite and pyrite returned 775 ppb Au and > 10 000 ppm As.

Ross's soil sampling in 1991 and 92 verified United Keno¿s earlier results. His best result returned 532 ppb Au and 667 ppm As.

During Cash Resources: 1993 exploration program no gold mineralization was found in place on the Shut claims but float specimens of quartz-carbonate vein material collected from Shut Creek assayed up to 126.9 g/t Au. A strong north-northwest trending soil anomaly with values up to 1 300 ppb Au coincides with the area where the float was discovered and extends for 1 500 m to the edge of the sampled area. On the Malou claims Cash reported skarn float which assayed 0.60% and 0.24% WO3.

Soil sampling on the Malou claims in 1994, revealed numerous spot anomalies as high as 833 ppb Au and 306 ppm As. Quartz-carbonate float collected on the Malou claims returned 102.55 g/t Au and 2 214 ppm As. On the Shut and Angus claims 0.5 km to the north soil sampling outlined an Au anomaly 3.5 km long by 250 m to 1000 m wide. Five excavator trenches dug to test three areas of moderate to strong soil geochemical response encountered permafrost at shallow depths and failed to reach bedrock. A float sample collected from the Angus claims assayed 122.3 g/t Au and > 2000 ppm As.

# **Occurrence Details**

Occurrence Number: 115H 047 Occurrence Name: Shut Occurrence Type: Hard-rock Status: Prospect Date printed: 6/15/2025 11:42:26 AM In 1995 NDU Resources dug 6 excavator trenches (216 m) on the Shut zone (Shut claims). Four excavator trenches were cut on the felsenmeer-covered uplands west of Malou Creek within a area of strongly anomalous Au and As soil geochemical response and vein float. All four trenches failed to reach bedrock due to permafrost. The other two trenches were cut into a mineralized float train in a north-facing cirque at the head of Shut Creek. Previously collected float samples returned assay values of up to 80.1 g/t Au. Neither trench exposed mineralized or altered rocks that would explain source of the float.

Soil sampling in 1995 outlined the Ross Zone which consists of a north-trending, approximately 1 m wide, light grey to deep brown clay gouge zone containing minor (< 1 cm diameter) angular wallrock and quartz clasts. This zone is located 1.6 km northeast of the occurrence and was explored with 3 diamond drill holes (309.7 m) and 2 excavator trenches. The first trench across the zone returned 19.06 g/t Au over 1.0 m. The second trench, 100 m to the south failed to intercept significant mineralization. The three drill holes tested downdip beneath the first trench. One hole was abandoned short of the zone, one hole missed intersecting the zone and the third hole intersected a zone of clay gouge with quartz vein clasts. This zone assayed 4.16 g/t Au over 1.44m but only 27% of the material was recovered.

On the Hope claims Ross's best result was a piece of quartz float with visible gold which assayed 27.1 g/t Au, 7.1 ppm Ag and 64 ppm As. Silt sampling returned assays as high as 5 848 ppb Au. The Delor and Switchback zones lie 1.1 km and 1.5 km north of the Ross zone, respectively. In both zones mineralized vein and altered wall rock float have been discovered, with the vein float from the Delor zone returning an average of 69.94 g/t Au. The Switchback zone is located at the projected junction of the Max-Min conductors that pass through the Ross, Malou and Delor zones.

### Work History

Data	Work Type	Comment
Date	Work Type	Comment
5/1/2019	Remote Sensing	
5/1/2012	Airborne Geophysics	
5/1/2012	Airborne Geophysics	
5/1/2004	Ground Geophysics	
5/1/2004	Ground Geophysics	
5/1/1995	Trenching	
5/1/1995	Geochemistry	
5/1/1995	Geology	
5/1/1995	Geochemistry	
5/1/1995	Ground Geophysics	
5/1/1993	Geochemistry	
5/1/1993	Geochemistry	
5/1/1992	Geochemistry	
5/1/1992	Geochemistry	
5/1/1987	Geochemistry	
5/1/1987	Geochemistry	
12/31/2009	Geochemistry	Chip sampling of hand trenches at Rikus zone.
12/31/2009	Geochemistry	Also silt samples. Collected at Gladstone and JPR properties.
12/31/2009	Trenching	Delor zone
12/31/2002	Geochemistry	
12/31/2002	Geochemistry	
12/31/2002	Trenching	
12/31/2002	Other	
12/31/1995	Drilling	Three holes, 309.7 m. Drilled on Ross Zone.
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/31/1994	Ground Geophysics	HLEM survey, survey was experimental.
12/31/1994	Trenching	
12/31/1994	Other	
12/31/1993	Geochemistry	
12/31/1993	Trenching	
12/31/1993	Other	
12/31/1992	Geochemistry	
12/31/1991	Geochemistry	
12/31/1989	Geology	
12/31/1989	Geochemistry	
12/31/1988	Geoloav	

12/31/1988	Other	
12/31/1987	Geochemistry	Also 6 rock samples.
12/31/1987	Geology	

## Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
<u>096090</u>	2012	Assessment Report Describing Airborne VTEM and Magnetic Survey at the Kluane Property	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
<u>095288</u>	2004	Assessment Report Describing Geophysical Surveys at the Ruby Range Project	EM - Ground Geophysics, Magnetics - Ground Geophysics		
<u>094415</u>	2002	Assessment Report Describing Hand Trenching, Prospecting and Soil Geochemistry at the Ruby Range Project	Soil - Geochemistry, Prospecting - Other, Hand - Trenching		
<u>093458</u>	1995	Assessment Report Describing Diamond Drilling, Trenching and Geophysical Surveys at the Ruby Range Property	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Backhoe - Trenching	14	1874
<u>093250</u>	1994	Assessment Report Describing Prospecting, Soil Geochemistry, Trenching and Geophysical Surveys at the Ruby Range Project	Soil - Geochemistry, EM - Ground Geophysics, Prospecting - Other, Backhoe - Trenching		
093205	1993	Prospecting and Hand Trenching Report	Rock - Geochemistry, Prospecting - Other, Hand - Trenching		
092001	1987	Geological and Geochemical Report on the Ruby 7-12 Claims	Rock - Geochemistry, Soil - Geochemistry		
<u>091993</u>	1987	Report on Geological Mapping and Geochemical Sampling	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		

## **Related References**

Number	Title	Page(s)	Reference Type	Document Type
<u>93-002</u>	Prospecting and Trenching on Malou and Faith Claims		Yukon Government: Energy, Mines and Resources	YMEP Report
<u>92-018</u>	Geochemical Report on the Malou 1-6 Claims and Tyrell Creek East		Yukon Government: Energy, Mines and Resources	YMEP Report
<u>YEG2010_07</u>	New insights into the geology and mineral potential of the Coast Belt in southwestern Yukon.		Yukon Geological Survey	Annual Report Paper