Occurrence Details

Occurrence Number: 106C 055
Occurrence Name: Conrad
Occurrence Type: Hard-rock
Status: Deposit
Date printed: 8/5/2025 8:27:10 AM

General Information

Secondary Commodities: arsenic, gold
Aliases: Osiris Cluster, Nadaleen Trend, Eaton
Deposit Type(s): Carbonate-Hosted Disseminated Au-Ag (Carlin-type)
Location(s): 64°6'50.85" N - -132°19'9.79" W
NTS Mapsheet(s): 106C01
Location Comments: Coordinates supplied by ATAC 2019
Hand Samples Available: No
Last Reviewed: Dec 3, 2019

Capsule

WORK HISTORY

In Jul/2009 ATAC Resources Ltd staked Sten cl 1-20 (YC99501) 300 m to the west and carried out a short prospecting, silt and soil sampling program on the claims. Staked within Sten cl 21-38 (YC995232) in Sep/2009 by ATAC Resources.

In Jul/2010 ATAC Resources staked ST cl 1-431 (YD26901) north, south and east of their existing claim holdings.

2012 Work on the Conrad zone consisted of 68 diamond drill holes (total footage not broken out). The company also continued geochemical testing and geological mapping areas located outward from the Conrad – Osiris areas.

In 2013, ATAC Resources drilled 4 diamond drill holes (lengths not reported), to expand the strike, length and depth of the zone.

In 2014 ATAC Resources collared 4 diamond drill holes (footage not reported) on the Conrad zone. The holes were described as step-out holes designed to test for high grade mineralization and expand the limits of the Lower zone.

During the 2015 exploration season ATAC Resources completed one diamond drill hole on the Conrad zone/occurrence. The hole was designed to test for mineralization in the newly designated Lower zone.

GEOLOGY

The occurrence area is located in east-central Yukon within an area geologists have referred to as the Rackla belt. The Rackla belt straddles the northern edge of the Selwyn basin, where Neoproterozoic to Paleozoic rocks of the basin are juxtaposed against Paleozoic and older slope and basin rocks of the Ogilvie platform along the Dawson thrust zone. Selwyn basin rocks in the occurrence area are dominated by slope and facies carbonate, clastic rocks and siltstone with significant deep water black shale and chert, whereas the Ogilvie platform is dominated by shallow water platformal carbonate. The occurrence area is bound structurally to the south by the Dawson thrust and to the north by the Kathleen Lake fault. The Dawson thrust is believed to be a reactivated Neoproterozoic normal fault that lies at the northernmost boundary of the Selwyn basin and is generally marked by an abrupt facies change to the Ogilvie platform.

The Nadaleen trend consists of a southward-younging sequence of sedimentary rocks that is in fault contact with a large mudstone package north of the Nadaleen fault. The thick mudstone package is an argillaceous mudstone to siltstone with isolated debris flow lenses which Colpron assigns to the Upper Nadaleen assemblage (unit PNu). Sedimentary rock lying south of the Nadaleen fault host the Conrad occurrence and the neighboring Osiris occurrence. The Conrad occurrence is hosted within Tucker's informal Conrad strata which underlies the Osiris strata. The Conrad stratum consists of silty limestone (unit PNc – Colpron) with siltstone and sandstone as well as large carbonate debris flows interbedded with black shale /siltstone (Unit PNl). Colpron assigns both units to the Lower Nadaleen assemblage. Small, east-west trending, steeply dipping gabbro dykes have been found in the area. The dykes which are mainly found in drill core intersections trend sub-parallel to the Nadaleen fault and range in thickness from 25 cm to 25 m. Within the Conrad zone the dykes crosscut the limestone and siliciclastic packages.

The Conrad zone/occurrence is one of 4 areas of Carlin-type mineralization discovered in 2010-2011 by ATAC Resources. Although gold mineralization was discovered during the 2010 drilling season the formal declaration of Carlin-type mineralization was not made until the spring of 2011 following extensive mineralogical work conducted over the winter of 2010-2011. The Conrad zone consists of a package of carbonates (Conrad Limestone – Tucker) (unit PNc – Colpron) and overlying siltstones to conglomerates (Conrad Siliciclastic – Tucker) (unit PNl – Colpron) that are folded into a broad east-west trending double plunging anticline. The anticline appears to be folded again in the center with the eastern and western limbs curving towards the north. The doubly folded Conrad Limestone and siliciclastic package is in fault contact with the Nonad mudstone unit (unit PNu – Colpron) along the steeply north dipping Nadaleen fault zone. This fault zone ranges up to 50 m wide and is a brittle to ductile cataclasite consisting of fragments of all thee rock units occurring in irregular blocks against one another.

Gold mineralization occurs in both the Conrad Limestone and Conrad siliciclastic rocks, usually within 50 m of the very steeply dipping and often sheared contact. Gold mineralization is accompanied by decalcification and deposition of sooty pyrite, giving mineralized core a darker appearance than unmineralized intersections, although this is very subtle to non-recognizable in siliciclastic rocks. The key factor controlling the distribution of alteration and mineralization is the permeability of the host rocks. According to Tucker (3013) features that control permeability include; primary fluid conduits such as fault and shear zones as well as stylolites, veinlets and fold hinges. Realgar is commonly associated with gold bearing zones, but not all occurrences of realgar have associated gold.

To date ATAC Resources has broken the Conrad zone into three separate zones; Upper, Middle and Lower. Carlin type gold mineralization occurs along the stratigraphic contact between Conrad Limestone and an overlying pyritic siltstone cap unit (Conrad Siliciclastics) where the thickest mineralization occurs along the crest of an anticlinal fold. The Upper zone has been continuously traced by shallow drilling over a strike length of 800 m and remains open along strike.

The Conrad Middle zone is characterized by strong alteration and gold mineralization within multiple stacked, flat lying bodies proximal to a laterally extensive, near vertical siltstone-limestone contact. Only 300 m of the presently known 800 m long favorable siltstone-limestone contact has been tested and mineralization remains open along strike and depth.

Following the 2014 drilling program, ATAC Resources announced the discovery of high-grade gold mineralization at depths of greater than 600 m. The newly discovered high-grade mineralization opens up an entirely new area of exploration. The Lower zone has been defined by two new significant gold intervals that returned 42.67 m of 3.03 g/t gold (624.84 to 667.51 m depth) and 21.71 m of 3.15 g/t gold (697.62 to 719.33 m depth) from diamond drill hole OS-14-230.

A 2.3 m trench dug on the Conrad showing uncovered intensely clay altered material. Chip sampling returned an average assay of 14.89 g/t gold over 2.30 m. Rock samples collected from both float and outcrop located around the trench consisted of light to medium grey strongly decalcified limestone with moderate clay alteration and small patches and pockets of realgar mineralization throughout. One rock sample from the area assayed 66.6 g/t gold.

Work History

Date	Work Type	Comment
12/13/2018	Drilling	
12/13/2017	Drilling	15 holes (6787.74 m)
12/13/2015	Drilling	One hole
12/13/2014	Drilling	Four holes collared on Conrad zone.
12/13/2013	Drilling	Collared 4 holes on Conrad zone.
12/13/2012	Drilling	Described as definition and infill drilling. One hundred and sixteen holes (37,100 m) collared. Sixty-eight of the holes collared on Conrad zone.
12/13/2012	Geochemistry	Moved out from known zones.
12/13/2012	Geology	Moved outward from known zones.
12/13/2011	Drilling	Large program. Eighty-nine holes total (26,675.84 m). Twenty-nine holes (12 020 m) collared on Conrad and Eaton. One hole (682.75 m) collared on Ptah zone.
12/13/2011	Geochemistry	Contour, ridge and spur and detailed grid sampling.
12/13/2011	Geochemistry	Regional program.
12/13/2011	Trenching	Excavator trenching.
12/13/2011	Geology	Over various zones.
12/13/2011	Remote Sensing	Also Panchromatic and multispectral satellite imagery collected.
12/13/2010	Airborne Geophysics	Flown over entire Nadaleen trend.
12/13/2010	Geochemistry	
12/13/2010	Drilling	Nine holes total (1,898.28 m). One hole each collared on Conrad showing (109.73 m) and Eaton showing (176.48 m).
12/13/2010	Geochemistry	Ridge and spur and detailed grid sampling.
12/13/2010	Trenching	
12/13/2009	Geochemistry	Reconnaissance scale.
12/13/2009	Geochemistry	Reconnaissance scale.
12/13/2009	Other	Reconnaissance scale.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096933	2015	Assessment Report Describing Geochemical Sampling, Diamond Drilling and RAB Drilling along the Nadaleen Trend of the Rackla Gold Property	Diamond - Drilling, Rotary - Drilling	32	1771.74
096810	2014	Assessment Report Describing Geochemical Sampling, Excavator Trenching, Geological Mapping, Auger and Diamond Drilling Along the Nadaleen Trend of the Rackla Gold Property	Auger - Drilling, Diamond - Drilling, Rock - Geochemistry, Backhoe - Trenching	59	4733
096607	2012	Assessment Report Describing Metallurgical Testing, Wildlife Monitoring, Heritage Evaluation, and Water Quality and Climate Monitoring Surveys	Water - Geochemistry, Metallurgical Tests - Lab Work/Physical Studies, Environmental Assessment/Impact - Studies, Heritage/Archeological - Studies		
096597	2012	Assessment Report Describing Geochemical Sampling, Auger Sampling, Geological Mapping, Diamond Drilling, and Geophysical Surveys	Air Strip - Development, Surface, Auger - Drilling, Diamond - Drilling, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Gravity Survey - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other, Hand - Trenching	172	37340.37
095938	2011	Assessment Report Describing Geochemical Sampling, Geological Mapping and Remote Sensing Surveys at the Rackla Gold Property	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, LIDAR - Remote Sensing, Heritage/Archeological - Studies		
095902	2011	Assessment Report Describing Geological Mapping, Diamond Drilling and Geophysical Surveys at the Nadaleen Trend Project Rackla Gold Property	Gamma-Ray Spectrometry - Airborne Geophysics, Magnetic - Airborne Geophysics, Diamond - Drilling, Detailed Bedrock Mapping - Geology	89	26675.84

095712	2010	Assessment Report Describing Geochemical Sampling, Geological Mapping, Diamond Drilling and Geophysical Surveys at the Nadaleen Trend Property	ZTEM - Airborne Geophysics, Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Prospecting - Other	9	1898.28
095680	2009	Assessment Report Describing Geochemical Sampling	Soil - Geochemistry, Prospecting - Other		

Related References

Number	Title	Page(s)	Reference Type	Document Type
2013-13	Geological map of the Rackla belt, east-central Yukon (NTS 106C/1-4, 106D/1)		Yukon Geological Survey	Open File (Geological - Bedrock)
YEG2013_OV	Yukon Exploration and Geology Overview 2013	26-27, 42, 47.	Yukon Geological Survey	Annual Report
YEG2013_11	Bedrock Geology of NTS 106B/04, Eastern Rackla Belt	147-167.	Yukon Geological Survey	Annual Report Paper
YEG2014_OV	Yukon Exploration and Geology Overview 2014	23-24, 40, 42.	Yukon Geological Survey	Annual Report
YEG2012_11	Geology, alteration, and mineralization of the Carlin-type Conrad zone, Yukon	163-178.	Yukon Geological Survey	Annual Report Paper
YEG2012_OV	Yukon Exploration and Geology Overview 2012	33-34, 62, 65.	Yukon Geological Survey	Annual Report
YEG2010_OV	Yukon Exploration and Geology Overview 2010	23-24, 60, 65.	Yukon Geological Survey	Annual Report
YEG2011_OV	Yukon Exploration and Geology Overview 2011	24-25, 67, 73.	Yukon Geological Survey	Annual Report
2014-1	Geological map of NTS 106B/04, east-central Yukon		Yukon Geological Survey	Open File (Geological - Bedrock)

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data
OS-12-130	Osiris	2012	HQ	32	6