## Occurrence Details

**Occurrence Number:** 106C 124
**Occurrence Name:** Orion
**Occurrence Type:** Hard-rock
**Status:** Prospect
**Date printed:** 8/5/2025 6:01:01 PM

## General Information

**Secondary Commodities:** gold
**Deposit Type(s):** Carbonate-Hosted Disseminated Au-Ag (Carlin-type)
**Location(s):** 64°7'26.9" N - -132°33'34.05" W
**NTS Mapsheet(s):** 106C02
**Location Comments:** Coordinates supplied by ATAC 2019
**Hand Samples Available:** No
**Last Reviewed:**

### Capsule

**Work History**

In early November 2009, ATAC Resources staked Dale cl 1-12 (YD0853) which covers the location of the current Orion occurrence (although the occurrence itself was not discovered until 2015).

In June 2010, the company flew an airborne ZTEM geophysical survey over eastern end of the larger Rau Gold Belt, including the Orion occurrence. The Rau Gold Belt covers the company's entire claim holdings in the region and includes the Tiger deposit (MINFILE occurrence 106D 098) located approximately 100 km to the west.

In 2011, ATAC Resources focused their exploration work on exploring the Nadaleen Trend portion of their Rackla Gold Belt. In 2012, the company carried out soil sampling at the Orion occurrence and performed prospecting in 2014.

In 2015, ATAC Resources used a rotary air blast (RAB) drill to test several targets hosting Carlin-type mineralization in the area, which led to the discovery of the Orion occurrence located 300 m west of the Anubis occurrence.

In 2016, both RAB and diamond drill holes were collared in the area. Work was done on the Orion project by Barrick Gold Corp. in 2017 as an earn-in agreement to option the claims, however, reports are unavailable at this time. Barrick terminated the option agreement in 2018 following a diamond drill program.

**Regional & Property 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.

Based on geological mapping by Colpron et al. and geologists employed by ATAC Resources, the Anubis occurrence area (or cluster) is underlain by mid-Paleozoic limestone, silty limestone, shales and calcareous siltstones that are cut by a network of regional scale faults. The oldest unit (unit mDc) is a Middle Devonian crinoid limestone. It is overlain by shale, mudstone and siltstone assigned to the Upper Devonian to Lower Mississippian Earn Group (unit DME). ATAC Resources has broken this unit into individual rock units. The sequence is overlain by Mississippian fossiliferous limestone (unit Mc). Faults (thrust?) located to the south and north fold the entire sequence into a syncline. It should be noted that Colpron's geology map places the Anubis occurrence within Middle Devonian crinoidal limestone (unit mDc) where in fact the occurrence lies 100 m to the east, in Middle Devonian to Lower Mississippian calcareous mudstone (ATAC Resources unit mDMc).

**Mineralization & Results**

The Dale claims were staked to cover an arsenic silt anomaly discovered in a creek which cut through the northern half of the claim block. The Sten, T and ST claims were staked to cover the potential western trend of Carlin-type mineralization discovered at the "Osiris cluster" located approximately 10 km to the east. Regional silt and soil sampling carried out in 2011 outlined numerous anomalies in the occurrence area. Detailed follow-up sampling carried out early in the 2012 exploration season outlined a 1 km northwest trending linear gold-in-soil anomaly within a larger and open ended 1.5 by 2.5 km arsenic, thallium, antimony and mercury soil anomaly. The trace of the gold in-soil anomaly coincides with a well-defined recessive regional-scale lineament interpreted to represent a steeply northeast dipping fault analogous to the structural setting of the Conrad zone (MINFILE occurrence 106C 055) located approximately 15 km to the east.

The Orion target is located 300 m west of the Anubis discovery hole An-12-001 (8.51 m of 19.85 g/t gold) in an area of strongly anomalous gold in soil geochemical response that had not been previously drill tested. Mineralization at Orion occurs in both a debris flow-bearing fossiliferous limestone and a variably calcareous pyritic siltstone, but is most prevalent in a highly deformed and fractured structural setting in the hanging wall pyritic siltstone assemblage where a secondary cross fault intersects the Anubis Fault.
In 2015, ATAC Resources drilled 5 RAB holes from the same pad set-up with ARB-15-026 being the only hole oriented north to test the pyritic siltstone. ARB-15-026 ended in gold mineralization. Diamond drilling at Orion in 2016 returned intervals of significant gold mineralization up to 2.75 g/t Au over 61.29 m, including 3.98 g/t Au over 14.61 m and 3.92 g/t Au over 13.15 m (see atacresources.com).

### Work History

| Date | Work Type | Comment |
|---|---|---|
| 12/13/2017 | Ground Geophysics | |
| 12/13/2017 | Drilling | 4 drill holes |
| 12/13/2017 | Drilling | |

| | | |
|---|---|---|
| 12/13/2016 | Drilling | 9 drill holes |
| 12/13/2016 | Drilling | 12 drill holes |
| 12/13/2015 | Drilling | 9 holes |
| 12/13/2014 | Geochemistry | |
| 12/13/2013 | Geochemistry | |
| 12/13/2012 | Geochemistry | |
| 12/13/2011 | Remote Sensing | |
| 12/13/2010 | Airborne Geophysics | |

## Assessment Reports that overlap occurrence

| Report Number | Year | Title | Worktypes | Holes Drilled | Meters Drilled |
|---|---|---|---|---|---|
| 097079 | 2016 | Assessment Report Describing Diamond and Rotary Air Blast (RAB) Drilling at the Anubis Cluster of the Rackla Gold Property | Diamond - Drilling, RAB (Rotary Air Blast) - Drilling | 43 | 3215.67 |
| 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 | | |
| 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 | | |