## Zarembo Island Project 2020 Update; Wrangell District, Southeastern Alaska

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The *Frenchie* Au-rich Ag, Zn, Pb VMS prospect is located on Zarembo Island 15 miles (24 kilometers) west of Wrangell Alaska and is hosted in rocks of the Late Triassic Hyd Group figure 5. Hyd Group rocks on Zarembo are part of the Admiralty subterrane of the Alexander terrane. The Alexander terrane in southeastern Alaska is important because it hosts Heclas' world-class Greens Creek massive sulfide deposit on Admiralty Island, the Windy Craggy deposit in B.C,

Constantine Metal Resources' Palmer VMS deposit near Haines, and Heatherdale Resources' Niblack massive sulfide deposit on Prince of Wales Island.

Alexander Terrane rocks on Zarembo Island are dominated by black and dark-brown shale / argillite, minor tuffaceous and calcareous sediments, coarse-grained conglomerates and mixed volcanic rocks. The rock package was most likely deposited in a restricted shale basin in a back-arc setting (Duke and others, 2010 and Taylor and others, 2010), much like is proposed for the Greens Creek deposit. Basin development and subsequent basin collapse resulted in complex mixing of sedimentary facies, volcanic rocks and massive sulfides. Within the Frenchie Zone, west of the adit exposure, a thick section of barite -rich rocks rests on a section of variably altered quartz sericite argillite, similar to the mine argillite at Greens Creek. The barite -rich section may represent deposition from white smoker type hydrothermal fluids in a backarc setting.

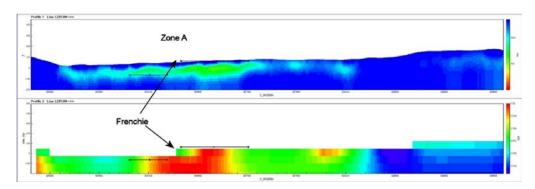
The basal section of the sulfide zone at Frenchie on Zarembo contains five feet (1.5 meters) of massive pyrite (sulfides > 75%), and an eight foot-thick (2.4 meters) section of semi-massive sulfide grading up to 4.8% zinc, 1% lead, and 2 grams gold per ton. Figure 2, 3, 4, and 5.

West of the main exposure at Frenchie a 3 to foot (1 meter) thick section of altered shale / argillite or tuff near the base of the sulfide zone contains grades up to 21.72 grams per ton GOLD within a 5.4 meter thick zone grading 4.36 grams per ton GOLD overall.

The sulfide-bearing zone is highly conductive and magnetic, and is outlined by a helicopter aeromagnetic airmag and electromagnetic (HEM) survey conducted by DGGS and the BLM in 1996.

Recent 3d inversion modelling by *CONDOR* of LEGACY HEM and AEROMAGNETIC data in Figue 1 suggests that there is a distinct conductive and magnetic zone associated with Frenchie that can be traced in the data for over 12,000 feet and plunges to the southeast.

Soil geochemistry along same trend suggests that mineralization may be present.



**Figure 1:** 3d inversion depth section sections of electromagnetics – top and aeromagnetics bottom including the location of Frenchie.



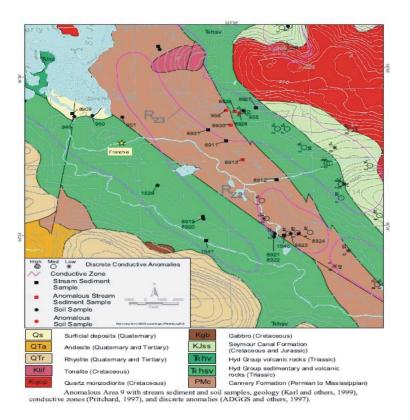
**Figure 2:** Frenchie mineralization at the discovery outcrop is hosted in rocks of the Late Triassic Hyd Group. Hyd Group rocks at Frenchie are a complex mixture of brown and black shale, dark gray and black cherty argillite and minor calcareous sediments. The mineralized section at Frenchie consists of a 5 foot thick layer of massive pyrite that is overlain by 5 feet of semi massive sulfide grading up to 4.8% zinc, minor lead and containing 2 gram per ton gold. Overlying the massive and semi- massive sulfide is a zone of variably altered and silicified shale and argillite breccia.



**Figure 3:** West of the discovery outcrop at Frenchie, is a mineralized exposure that contains a 5.02 meter thick section of semi-massive sulfide grading 2.5% zinc, 0.2 % lead and 4.36 grams per ton gold. The base of the mineralized zone that includes a 1 meter (3 feet) thick zone grading *22 grams per ton gold.* 



**Figure 4:** On North side of Frenchie Creek is a good exposure of semi -massive sulfide consisting of 4.11 meters grading 1 GPT Gold, 2.5% Zn, and .2% Pb. The exposure also contains a 1 meter thick zone grading *22 GPT gold figure 2*.



**Figure 5:** Geologic map of the Frenchie Prospect area. Note the location of Frenchie and the distribution rocks of the Hyd Group (GREEN) (Triassic) and Cannery Formation (PINK) (Permian). Image also contains Dighem electromagnetic picks.

# Avidian Gold's Amanita Property, Fairbanks Mining District

Jerad Anderson

#### Location

Amanita is located 21 km (13 mi) northeast of Fairbanks, Alaska. The Property lies within the Fairbanks Mining District in the north-central portion of the nearly 1,000 km long Tintina Gold Belt. Enclosing an area of 14.6 km² (3,600 acres), Amanita covers 88 State of Alaska mining claims. In June 2020, 5.3 km² (1320 acres) were converted to an Upland Mining Lease. The Property is contiguous with Fort Knox open-pit gold mine located approximately 5 km (3 mi) to the northeast. Avidian (the "Company") expanded access to the Property in 2020 for diamond core drilling.

#### Geology

Amanita is underlain by micaceous quartzite and quartz biotite muscovite schist of the Fairbanks Schist unit. The Property borders the Mid-Cretaceous Gilmore Dome pluton which occurs in the northwest corner of the claim block and is interpreted to extend to depth under the metamorphic rocks. Historical drill hole AH-1 in the northwest portion of the Property was drilled through 150 m of continuous granitic rock. At least one southwest-striking felsic dike intrudes across the northwest portion of the

Property. The host rocks are cut by a series of high angle, left-lateral, northeast-trending faults. As mapped by the State Geological Survey (Newberry et. al., 1996) two of these fault zones, spaced about 600 m to 900 m apart, comprise the Tonsina Trend, which is mineralized on the Property. This trend strikes in the Fort Knox deposit.

### **Exploration**

Between 1998 and 2001 Kinross held a lease on the Amanita Prospect. During that time workers defined a 1500 by 3700 m Au in soil anomaly associated with As, Bi, Sb, and W. Additionally, they mapped a nearly 300 m wide subparallel zone of mineralized steeply-dipping northeast faults. This was partially achieved by a 230 m long cross-cutting trench spanning the Tonsina Trend. Additionally, thirty-nine (39) reverse-circulation drill holes totaling roughly 4,700 m (15,420 ft) identified an oxidized zone nearly 100 m thick. The RC drilling primarily focused on a 1,500 m by 500 m area located in the heart of the property. Highlights from these efforts include:

- 4.57 m @ 11.49 g/t Au
- 22.86 m @ 1.01 g/t Au
- 12.19 m @ 2.28 g/t Au
- 13.72 m @ 3.02 g/t Au

Avidian built upon this work. In 2019, excavation of six trenches totaling 1,750 m followed up on soil and rock anomalies. Notable intersections from these trenches include:

- 94.5 m @ 3.04 g/t Au
- 27.0 m @ 4.22 g/t Au

In 2020, the Company completed nine HQ, oriented diamond core drill holes for a total of 1,945 m between August and October. Targeting for these holes was guided by results from previous surface work and a high-resolution UAV magnetics survey; oriented data gathered during the course of the program further refined drill targets.

The Company's drilling program tested high-angle, left-lateral northeast-striking structures previously identified along with a conjugate northwest striking fault system. Series of sheeted iron-oxide bearing quartz veins running sub-parallel and perpendicular to foliation in the schist package are common. Past work would suggest that many of these veins should be mineralized. Several small intrusive bodies discovered in 2020 are of felsic to intermediate composition. Further investigation of the intrusives aim to further understanding of the mineralization and alteration found on the property.

One method of advancing that understanding was to employ a TerraSpec Halo spectral instrument to identify alteration minerals. TerraSpec analyses were collected from a 97 m road cut, the nine 2020 core holes, and the 39 previously drilled RC holes. Preliminary results showing illite, kaolinite, montmorillonite, dickite, and halloysite among others further lend evidence to argillic alteration.

The Company is awaiting assay results of the 2020 drilling campaign and will share those in the upcoming weeks.