

GOSSAN #10
(M. Waldner)

Introduction

The area of interest was south of the Tay River on Map Sheet 105-K-11 air photo A20695-36. The gossan was located on a creek-cut valley where there is a limited yellow and red alteration zone. The east side of the creek was inaccessible due to the width of the creek. A soil sample cross was sampled, the lines trending 040° and 130° . Forty-one samples were taken.

General Geology

The rock in the alteration (gossan) zone is a very fine grained medium grey to black cherty quartzite. The texture of the rock suggests a very fine grained quartzite, but the rock has a conchoidal fracture. The outcrop in the gossan is well bedded, the bed generally six to eight inches thick. Some of the beds are black chert, but these beds are not common. The bedding on the western end of the gossan strikes 119° and dips 55° SW. The eastern end of the gossan exhibits folded bedding, the fold axes trend approximately parallel to the creek valley, however no attitudes were taken.

The rock of the gossan was stained a reddish (rusty iron?) but no visible indication of the cause of the staining was found. The probable cause of the staining is very fine grained pyrite but none was observed.

Mineralogy

No sulphide mineralization was observed.

Structural Geology

The region of the gossan is slightly folded but no fold axis attitudes were measureable. The general trend of the fold axes appear to follow the creek course ($\approx 085^{\circ}$). The bedding on the western end of the gossan does not exhibit folding. The beds strike 119° dip 55° SW. Half-way along the outcrop of the gossan the bedding changes abruptly to strike 100° and dipping 25° N. A small depression trending 025° could possibly be a fault causing the change in bedding attitude. However, no displacement was observed. The rock type is continuous across the gossan outcrop.

Conclusions

The rusty staining is probably due to weathering of pyrite. If base-metal mineralization is indicated by the soil samples (results unknown at the present time), the opposing dips noted may imply the presence of structurally controlled mineralization. A fault is indicated which possibly cuts the soil sample line near numbers #10 1+00SE to #10 6+00SE.