INTRODUCTION

The Tulameen Alaskan-type intrusion (Slate Creek) is located in the southern British Columbia, Canada. The intrusion is a large, layered ultramafic-mafic complex that host a variety of mineralized deposits, including Cu-PGE mineralization. The intrusion is hosted within a supracrustal system that was deformed and metamorphosed during the Cretaceous period. The intrusion is characterized by a series of layered ultramafic-mafic units that are intruded by mafic dikes and sills. The mineralization is associated with the ultramafic-mafic units, and it is characterized by the presence of chalcopyrite, bornite, and minor pyrite and pyrrhotite. The mineralization is thought to have formed during the late stages of intrusion emplacement, and it is associated with the cooling of the intrusion.

SULPHIDE TEXTURES

Sulphides occur in multiple textural settings within the ultramafic-mafic rocks of the intrusion. The different textural settings are characterized by the presence of:

1) Inclusions
   - Chalcopyrite, bornite, minor pyrite and rare pyrrhotite are the principal sulphides in the intrusion. Chalcopyrite occurs as inclusions in amphibole, chlorite and other silicates, whereas bornite occurs as inclusions in chlorite and amphibole. Pyrite and pyrrhotite are minor components of the sulphide assemblage.

2) Intrstitial sulphides
   - Interstitial sulphides, predominantly chalcopyrite, are locally recrystallized and form a fine-grained assemblage. Pyrite, pyrrhotite and rare pyrrhotite are also present in the interstitial assemblage.

3) Recrystallized sulphides
   - Recrystallized sulphides, such as mertieite, are characterized by the presence of interstitial chalcopyrite and bornite in the matrix of the ultramafic-mafic rocks. Mertieite is a rare sulphide that is found in the intrusion and is thought to have formed during the recrystallization of chalcopyrite and bornite.

4) Hydrothermal sulphides
   - Hydrothermal sulphides occur in fractures and veinlets and locally form a more pervasive hydrothermal assemblage that replaces primary sulphides. Pyrite occurs in fractures and veinlets and locally forms a more pervasive hydrothermal assemblage.

Geology of the Tulameen Ultramafic-Mafic Intrusion

Champion Zone Cu-PGE

The Champion Zone is one of the largest Cu-PGE deposits in the world. The deposit is located in the southern British Columbia, Canada, and it consists of a series of layered ultramafic-mafic units that are intruded by mafic dikes and sills. The mineralization is associated with the ultramafic-mafic units, and it is characterized by the presence of chalcopyrite, bornite, and minor pyrite and pyrrhotite. The mineralization is thought to have formed during the late stages of intrusion emplacement, and it is associated with the cooling of the intrusion.

IMPLICATIONS FOR EXPLORATION

The Tulameen Alaskan-type intrusion is a significant Cu-PGE deposit, and it provides a model for the exploration of similar deposits in other parts of the world. The exploration potential of the intrusion is characterized by the presence of sulphide mineralization, which is associated with the ultramafic-mafic units. The exploration potential is enhanced by the presence of disseminated and massive sulphide mineralization, which is characterized by the presence of chalcopyrite, bornite, and minor pyrite and pyrrhotite. The exploration potential is further enhanced by the presence of hydrothermal alteration, which is characterized by the presence of chlorite, epidote, and titanite. The exploration potential is further enhanced by the presence of massive sulphide mineralization, which is characterized by the presence of chalcopyrite, bornite, and minor pyrite and pyrrhotite. The exploration potential is further enhanced by the presence of porphyry mineralization, which is characterized by the presence of copper and molybdenum. The exploration potential is further enhanced by the presence of porphyry copper deposits, which are characterized by the presence of copper and molybdenum. The exploration potential is further enhanced by the presence of porphyry copper deposits, which are characterized by the presence of copper and molybdenum. The exploration potential is further enhanced by the presence of porphyry copper deposits, which are characterized by the presence of copper and molybdenum.