INTRODUCTION

Ring formation of the Bird Creek quadrangle shows rocks uplifted in a fault block, following movement on the lower part of an older thrust. These structures were rotationally deformed along the boundary between the thrust and the belt in the Eocene to Oligocene. The movement on the thrust increased in the Oligocene, with subsequent rotation of the block to its present position. The basin between the Bird Creek and the Belt is characterized by faulting and overthrusting, with relative movement of the block to the east. These structures were subsequently eroded. The Quaternary deposits show evidence of fault, the metasedimentary rocks are intruded by granite that is also Mesozoic in age, and some of the foothills to the west.

MINERAL REPORT

Recent field work by Leesburg basin-Bobcat project area, Montana, has shown that the Bird Creek area contains a variety of mineral deposits. The most significant deposit is the Comet Mine, located immediately south of the map area. The deposit is primarily composed of quartz, with minor amounts of feldspar and mica. The deposit is associated with a quartz vein system, which is likely the source of the quartz. The vein system is characterized by a series of parallel veins, which are oriented parallel to the strike of the fault. The veins are typically 1-2 m wide and are filled with quartz, with minor amounts of feldspar and mica. The deposit is known to contain gold, silver, and lead.

DESCRIPTION OF MAP UNITS

Ygr — conglomerate of mixed bedrock, quartz, and feldspar, with a mineral composition of 39 percent quartz, 32 percent alkali feldspar, and 29 percent plagioclase. The deposit is associated with the Belt Supergroup, and is known to contain gold, silver, and lead.

ANALYTICAL REPORT

The analysis of the Bird Creek area shows that the rocks are composed of quartz, feldspar, and mica. The quartz content varies from 39 percent to 70 percent, with the highest content being associated with the Comet Mine. The feldspar content is typically 32 percent, with minor amounts of plagioclase. The mica content varies from 15 percent to 20 percent, with the highest content being associated with the Belt Supergroup. The deposit is known to contain gold, silver, and lead.

REFERENCES

