ANVIL DISTRICT - SELWYN BASIN

Five lead-zinc-silver-barite deposits of the stratiform, massive pyritic sulphide type form the Anvil District in south-central Yukon Territory, Canada. The Anvil District is part of Selwyn Basin, a large area of deep water clastics, chert, and minor carbonate which accumulated along the ancient North American continental margin during late Proterozoic and early Paleozoic.

During early Paleozoic the Selwyn Basin was characterized by passive continental margin sedimentation of carbonaceous fine clastics and chert with a shallow carbonate platform to the northeast. Local extension in Orodovician and Devonian-Mississippian times is indicated by volcanism and development of local coarse clastics.

Selwyn Basin is immediately northeast of the Yukon-Tanana suspect terrane, a volcanic-plutonic assemblage emplaced as part of a transpressive suture during oblique collison with North America in Jurassic through Cretaceous time. The structural history of the Basin is further complicated by right-lateral strike slip movement of at least 450 kilometres along the Tintina Fault Zone located immediately southwest of the Anvil District.

The clastics of Selwyn Basin host many of Canada's large stratiform lead-zinc deposits, making it a metallogenic province of world-wide significance. Other districts in the Basin are the MacMillan Pass, Howard's Pass, and Akie (Gataga). Mineral deposits within the Basin range from Cambrian through Devonian in age.

To date the Faro Mine is the only producer in Selwyn Basin. Two additional deposits in the Anvil District, Vangorda and Grum, are now being brought into production.