Aylwin 800640

General Geology

The prop. lies within a sed. - volcan assemblage of Triassic - Slocan Series of rocks which forms a roof pendant. - 3 miles x ½ mi. within Nelson Batholith - this pendant cut by elongate plutons of acidic intrusive probably of Tertiary age - Northern - western Margin in Nelson Batholith

Slocan Area lies within core of Kootenay Arc - composed of rocks of variable met. grade and ~~age~~ ranging in age from Windermere ~~and~~ to Triassic

~~The area is dominated~~ The Nelson batholith dominates the geological picture of this area

Older limit of Nelson plutonic is 185 million years Mid Jurassic

Youngest - sed. rocks of Slocan Gp found in the large Slocan syncline. The Slocan Gp rocks in contact with Paleozoic rocks in east near Kootenay Lake and in the west are near the Valhalla Gneiss.

all rocks in Slocan area - with exception of Nelson - strongly deformed and variably metamorphosed

all contacts tectonic - success. started in Windermere to early Mesozoic

Locally oldest - augen gneiss - crushed mylonitized and brecciated med to coarse leucogranite outcrops along east shore of Slocan Lake - 1 mile wide band - bounded on each by a crush zone along a major vertical fault - which separates from Nelson

structurally underlain by Horsefeif group meta sediments - which is strat. ally above gneiss

Slocan - gneiss - coarse gr. + distinctly foliated

Impure arenaceous schists

Sedimentary unit – med to high met. grade impure arenaceous schists

Horsethief – mixture of meta sed. gneiss – leuco granite gneiss + pegmatite – primarily med sediments –

Rhythmic sequence – 3"-6" bedded greywacke, micaceous arkose, quartzite and pelite. layers of impure limestone – common.

Slocan Gp – central part of New Denver Trasla area

bounded – N + S by young batholiths – east by Valhalla gneiss + east by Paleozoic

fine grained – distinctly bedded sedim. – shale argillaceous limestone, quartzite – arkose. any grey wacke –

lies unconformably upon Paleozoics basal conglomerate

Triassic ??

Several deformational deformation polyphase events

no evidence of motion along zone – recurrent movement along contact of batholith with country rock