

CHAPLEAU RESOURCES LTD.

North American Exploration



Properties



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British Columbia - Fors

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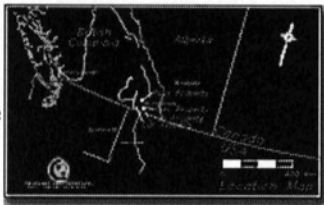
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📍 Fors Property

Chapleau Resources Ltd. holds a 50% interest in the Fors property, situated in the East Kootenay region of British Columbia, 17km southwest of the city of Cranbrook and 35km south of the city of Kimberley, home of the enormous and world famous Sullivan Orebody.



Ground covered by the Fors property is underlain by sediments and igneous intrusions of gabbro of the Middle and Lower Aldridge formations. Attention was first drawn to the Fors area in the 1960's when boulders of float



containing an abundance of iron, lead and zinc sulfides were discovered. Subsequent mapping and drilling on and around the Fors property over the years since the original discovery has revealed a number of anomalous geological features similar to those documented at and around the Sullivan Orebody which are directly related to the formation of that gigantic deposit.

A 1992 drilling program on the Fors property discovered a well mineralized vent complex containing an abundance of intensely altered sediments, including albite and tourmalinite with crosscutting fragmentals, well tourmalinized in part within Middle Aldridge sediments of sandstone and mudstone. Sulfides identified within the vent complex are pyrrhotite, sphalerite, galena, arsenopyrite and chalcopyrite occurring in semi-massive to massive lenses as well as disseminations and veins (Britton and Pighin, 1994). This demonstrates that hydrothermal and venting activity was an ongoing process occurring post Sullivan time.

Alteration features, particularly of albite and tourmalinite together with occurrences of intensely disrupted, fragmented sediments and ultimately the presence of iron, lead and zinc sulfides, particularly at "Sullivan Time", make this property extremely attractive for further intensive, deep drilling.

1996 Drill Program Results

Results from the Fors drilling project to date have been extremely encouraging in that they have shown events which ultimately led to the formation of the gigantic Sullivan Orebody to the north, were also happening at the Fors property location at the same "Sullivan Time" period.

Hole CF96-02 cored bedded parallel fragmentals intercalated with thin laminated sediment of the Sullivan horizon. This interval was partially albitized and tourmalinized. Although mineralization within this interval is weak, the fragmental beds indicate that venting did indeed take place at Sullivan time. The crosscutting fragmental and adjacent pyrrhotite, chalcopyrite, sphalerite and galena vein in the hanging wall above the thick gabbro indicates that mineralizing events occurred well after Sullivan time as well. This is also demonstrated by the Fors vent.

Hole CF96-03 cored 38 meters of well mineralized sediment at Sullivan time, immediately above a totally disrupted zone of sediment similar to those found within the Sullivan-North Star Corridor. A proximal graben with associated sulfides is indicated by these drilling results.

Hole CF97-04 cored thin laminated sediment immediately under the thick gabbro intrusion. The distance to the "footwall quartzites" below show the thin laminated interval to be the Sullivan horizon. Disrupted sediments, a fragmental and siltstone bearing an abundance of zinc with some lead mineralization occur at the base of the thin laminated interval. This occurrence is similar to that of the Concentrator Hill Horizon, the up-faulted east fringe of the Sullivan Orebody.

The above significant features together with the documented large field of hydrothermal activity including tourmalinization, albitization and mineralization make this a prime area for further deep, exploration drilling.

📍 Sullivan Mine Type Targets

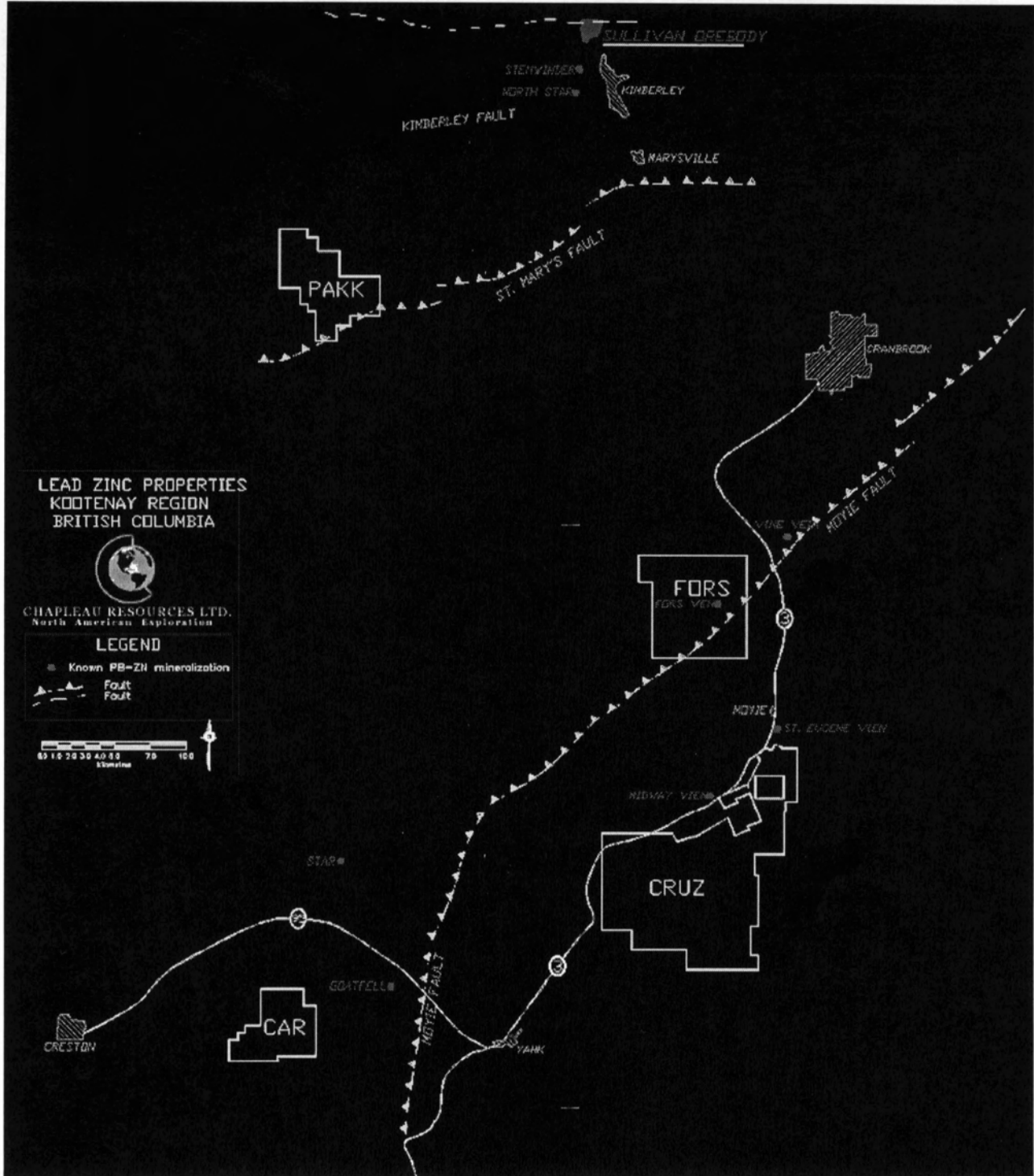
All of Chapleau's properties in B.C. are Sullivan Mine Type Targets. If found today, the Sullivan would be worth approximately \$25 Billion (gross value), which is 6 times what Inco paid for the Voisey's Bay Deposit. It is worth more than all the recorded gold production in Nevada up to 1999. It is considered to be an "elephant deposit".

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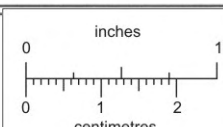
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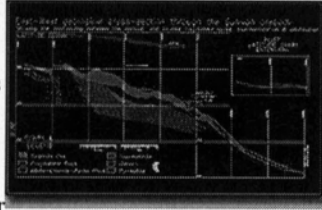


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The Sullivan lead-zinc mine owned 100% by Cominco Ltd., was discovered in 1892 and had been in production since 1909. As of year end 1991, the mine has produced over 140 million tons of ore grading and average of 6.8% lead, 5.9% zinc and 2.4 oz/ton silver, and still has published reserves of 20.3 million tons grading 4.7% lead, 7.6% zinc and 0.8 oz/ton silver.

The Sullivan deposit is situated at or near the bottom of the Middle Aldridge formation, part of the Middle Proterozoic Purcell Supergroup. It appears to be at least 1.4 billion years old. The western part of the deposit consists of massive pyrrhotite (iron-sulphide) with occasional wispy layers of galena (lead-sulphide), overlain by layered galena, pyrrhotite and sphalerite (zinc-sulphide). This is in turn overlain by layers of pyrrhotite, sphalerite, galena and minor pyrite (another iron-sulphide) that inter-finger with layers of clastics, or fragmental sediments. This sequence of mineralization encompasses a roughly circular area that is approximately 1,000 metres in diameter and up to 100 metres thick. The eastern part of the deposit consists of five distinct layers of sulphides, separated by clastic rocks, which thin out to become uneconomic towards the east. The western and eastern portions of the deposit are separated by an irregular transition zone.



The model for the genesis of the Sullivan deposit has been the subject of numerous studies done in the past by mine owner Cominco Ltd. A formal five year study was conducted by the joint team of the Geological Survey of Canada, the British Columbia Geological Survey Branch, and Cominco Ltd. Basically, an ocean-floor vent complex caused sulphides (predominantly pyrrhotite) to be deposited on the surrounding ocean floor. Sulphides are massive and thick in the central vent area and in distinct layers further from the vent(s). Tourmalinite alteration of the underlying vent "pipe" may have taken place at that time. Over a longer time period, a series of gabbro dykes and sills were emplaced specifically related to the large, underlying Moyie Sill. This sill and its offshoots set up a flow of hot fluids that percolated through the vent complex, the massive pyrrhotite body and the now overlying sediments. The fluids partially replaced the pyrrhotite in places with galena and sphalerite thereby creating the economic ore-body now being mined. The fluids also alter the other rocks they encounter causing distinct mineral assemblages, especially the massive albitite and albitite-chlorite alteration in sediments overlying and surrounding the deposit.



From the studies of the Sullivan deposit and the surrounding alteration package, one can develop a "check-list" of geological characteristics to look for when evaluating drill holes of potential Sullivan look-alikes. First, we should look for drilling to occur in the vicinity of the Lower Aldridge - Middle Aldridge contact. That is not to say that only exploration "at Sullivan Time" is valid. In fact a new theory holds that the formation of the Sullivan deposit coincided with a specific geological event (ie. tectonic activity as evidenced by the transition from quiescent sedimentation to more violent turbidite sedimentation) that may have occurred at different times in the region. We would just give exploration "at Sullivan Time" a higher degree of probability of success. Second, we should see the Moyie Sill or some other larger gabbro sill in the vicinity. This sill provides the temperature "engine" which drives the altering fluid

flow necessary to produce the mineralization being sought. Next, we should see evidence of massive altering fluid flow. In other words, we should see very large scale alteration including massive tourmalinization and massive albitization. Other less-pervasive alterations and indicator minerals include: carbonate and iron-carbonate alteration, possibly manganiferous garnet, as well as elevated levels of minor metals (antimony, arsenic bismuth and tin). Finally, we should see evidence that the fluids replaced pyrrhotite with galena and sphalerite. (Please note that we have vastly over-simplified things here and left out a good number of smaller-scale features but that the above provides a good exploration model.)

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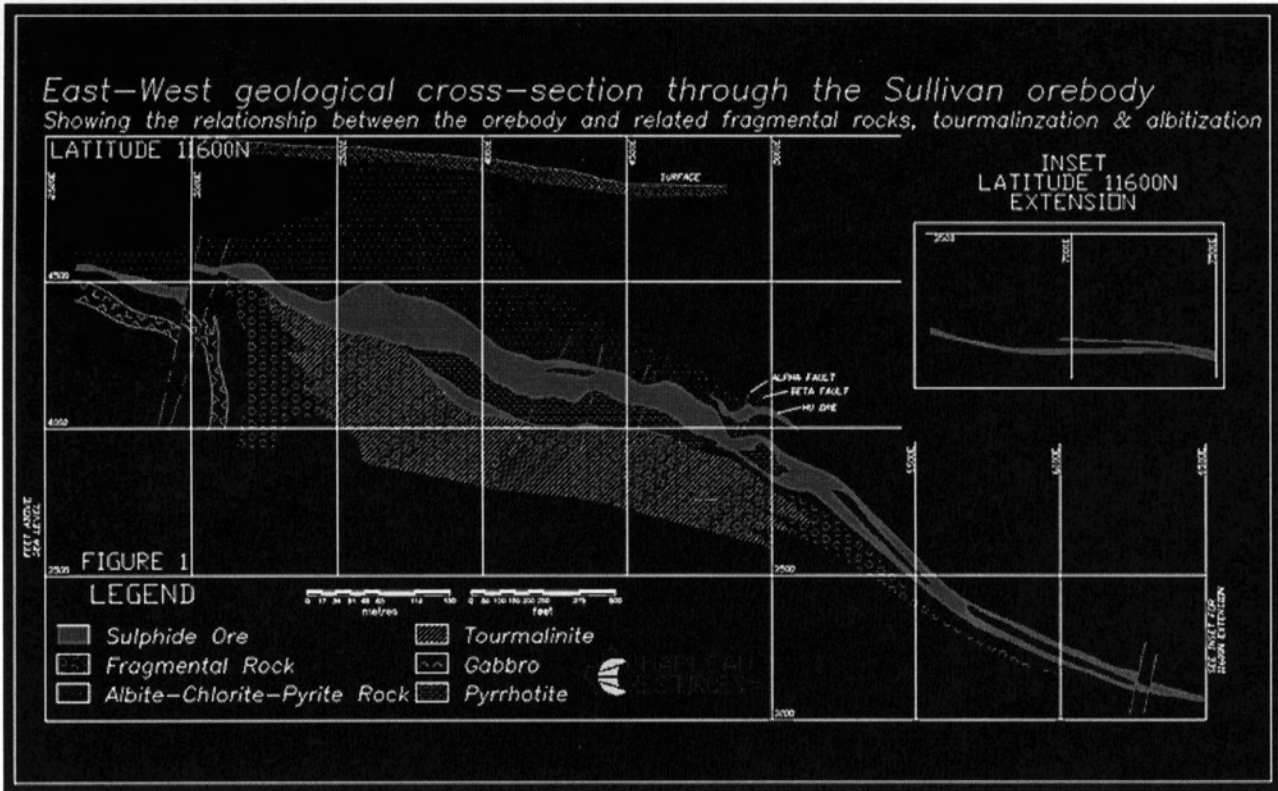
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Sullivan Orebody

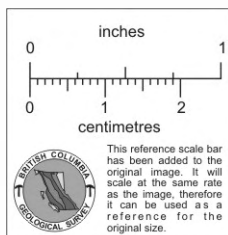


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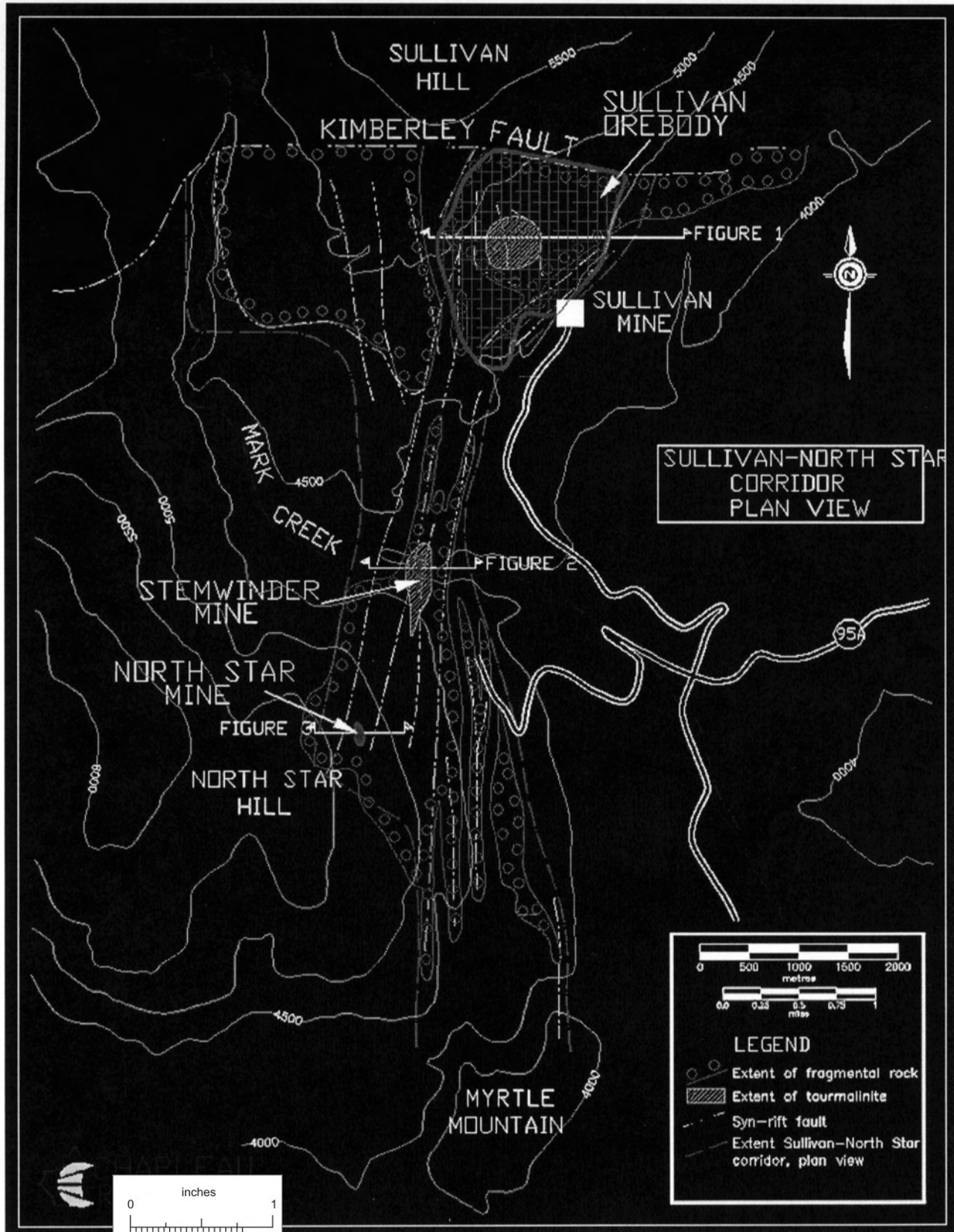


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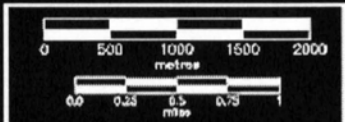
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Sullivan Northstar Corridor

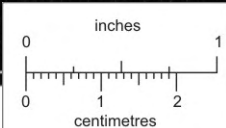


SULLIVAN-NORTH STAR CORRIDOR PLAN VIEW



LEGEND

- Extent of fragmental rock
- Extent of tourmalinite
- Syn-rift fault
- Extent Sullivan-North Star corridor, plan view



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