

The NEW SULLIVAN II Project

A world Class Sedimentary Exhalative Ag-Pb-Zn Target

Structurally the New Sullivan II project is similar to the Sullivan Mine at Kimberley, B.C. Distinctive geological elements associated with the Sullivan Mine and found at the New Sullivan II are albite and tourmaline alteration, growth fault pattern, fragmentals and a peripheral lead, zinc and silver apron.

Mineralization in the New Sullivan II project is spread over a large area; the location covers tourmalinite showings on the southern portion of the claims (Assessment Report 14951) near the headwaters of Dodge Creek, a south-flowing tributary to Boundary Creek. Further lead-zinc mineralization also occurs on the gently sloping east spur of Mount Rykert and in the headwaters of Urmston Creek (on the New Sullivan II claim; Assessment Report (17387).

The area is underlain by Middle Proterozoic Purcell Supergroup sedimentary rocks, metamorphosed to middle or upper greenschist facies (garnet-staurolite grade in places). In particular, the property is underlain by Middle Aldridge strata, thought from correlation of marker horizons to lie 900 metres above the Lower to Middle Aldridge contact at which the Sullivan (082FNE052), a world-class sedimentary exhalative lead-zinc-silver deposit lies.

Hostrocks on the property include muscovite-biotite-garnet phyllite, micaceous quartzite, thin to massive bedded quartz wacke, argillite, and a calcsilicate siltstone layer intimately associated with mineralization. Gabbro sills belonging to the Moyie intrusions, also part of the Purcell Supergroup, are commonly intercalated with the metasedimentary rocks. These rocks strike generally north- northeast and dip gently at 20 to 30 degrees east.

Prior exploration on the New Sullivan II group was prompted by the report of "large quantities of milling grade galena-quartz float" found in a burned area (Minister of Mines Annual Report 1929). All efforts so far have failed to relocate the site of, or source of, this float. However, mineralization consisting of a layer of quartz, carbonate and talc rock (the calcsilicate layer) containing disseminated to massive galena, sphalerite and pyrite, with significant silver values, was discovered on what is now the New Sullivan II claim. This zone was traced geochemically along strike for nearly 2000 metres.

This mineralization is structurally overlain by a tourmalinite pipe with fragmental rocks typical of those at the Sullivan deposit. However, since the stratigraphy in this area is thought to be overturned, it is likely that the tourmalinite and associated albitized rocks are actually below the level of the stratabound mineralization. Sericitic and chloritic alteration are also noted on the property; such alteration is prominent at the Sullivan deposit. Drilling traced the calcsilicate layer below the surface and investigated a garnetiferous horizon which is exposed at surface as a manganiferous gossan. These types of manganiferous garnets are prominent just below the ore horizon at the Sullivan deposit.

Assays of representative material from surface trenches are up to 1.87 per cent lead, 1.46 per cent zinc and 24 grams per tonne silver; however, no mineralized interval was intersected in diamond drilling in 1990 to 1991 (Assessment Report 21589). Core losses in blocky ground led to the abandonment of four holes and the conclusion that the main stratigraphic target had not yet been tested. A deep-penetrating electromagnetic survey by Cominco Ltd. on the Dodge claims to the south revealed only weak cross-over conductors (Assessment Report 19225).

The fact that abundant ore grade silver lead zinc float has previously been discovered in an area of Sullivan horizon rocks still make this an attractive target despite the failed attempts to delineate an economic ore body. The texture, grade and mineralogy of the known mineral zones that were drilled on the New Sullivan II are different than the high grade float that was described in the old reports.

Therefore it can be concluded that an unknown mineralized horizon still has yet to be discovered in the highly prospective Aldridge formation rocks. Because of the potential world class target (Sullivan Model) Further modern exploration is still warranted on this group of claims.

The giant Sullivan Pb-Zn Ag mine in British Columbia was worked for 105 years and produced 16,000,000 tonnes of lead and zinc, as well as 9,000 tonnes of silver. It was Canada's longest lived continuous mining operation and produced metals worth over \$20 billion in terms of 2005 metal prices. Grading was in excess of 5% Pb and 6% Zn.

M EXPL 1996-E2

MPR AR 1929-C360

MPR ASS RPT [13858](#), [14951](#), *[16037](#), *[16243](#), [17837](#), [19225](#), *[21589](#), [22344](#), [22523](#)

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MPR PF (Prospectus, White Knight Resources Ltd., 1989)

GSC MAP 603A

GSC MEM 228

GSC OF 929; 2721

CNL #127, 1985; #97,#115,#125,#128,#129, 1990

DM Nov. 1985

MF Golden-Tonkin Resources Ltd., 1989

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