

Prosperity Goldfields



Customer Story



Prosperity Goldfields retained CSA Global to provide specialist technical support for their early-stage gold exploration project at Kiyuk Lake in Nunavut. CSA was involved in and directed many different aspects of the summer and winter programs in 2012 and 2013 with key input into the development of an property-wide exploration strategy.



Field crew unloading to start till sampling.

Snap Shot

- Prosperity Goldfields Corp undertook gold exploration programs at Kiyuk Lake in Nunavut between 2012 and 2014.
- CSA Global was retained to provide specialist technical support to these programs.

About Prosperity Goldfields Corp

Prosperity Goldfields was a Canadian junior exploration company with a main project at Kiyuk Lake in Nunavut. Prosperity merged with Northern Empire Resources Corporation in 2014.

The Kiyuk gold project occurs in southern Nunavut within Proterozoic sedimentary rocks of the western Churchill Province. Gold mineralization at Kiyuk represents a new style of gold mineralization in the region and remains poorly understood. The first significant gold intercept at Kiyuk was drilled by Prosperity in 2011 and follow-up drill programs were completed in 2012 and 2013. To date, four bedrock gold occurrences have been discovered through a combination of boulder prospecting and diamond drilling. Regional till geochemistry and boulder samples indicate that there are several other bedrock occurrences still to be discovered.



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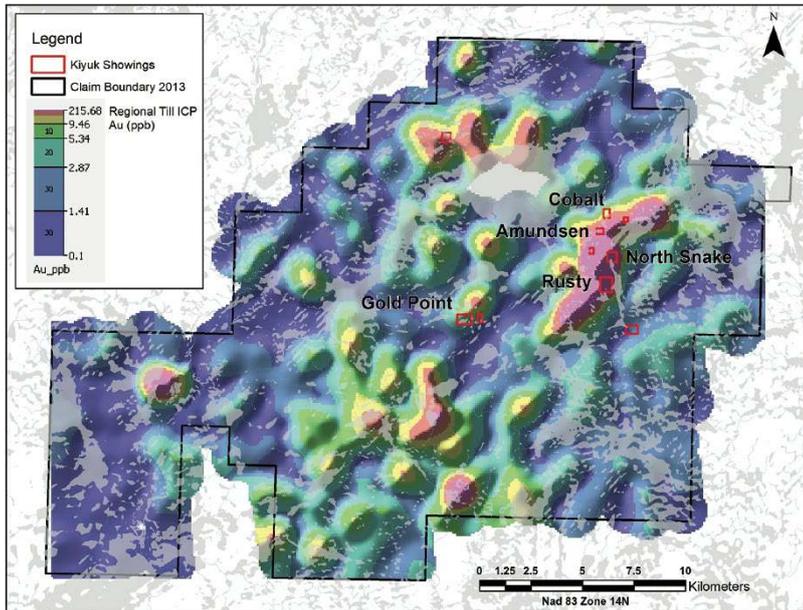
"CSA Global Canada and their predecessor, Revelation Geoscience, have been doing work for me on a variety of projects over the past three years. This includes work on the Kiyuk Gold project in Nunavut during 2012 and 2013. I've recently had the opportunity to review the quality of technical work done by over 100 junior mineral exploration companies and have gained an appreciation for the high standard of work performed by CSA Global when benchmarked against these other organizations."

Adrian Fleming, Former CEO Prosperity Goldfields Corp

The Challenge

Close to 95% of the property is covered by till and so exploration has been hampered by the small amount of available bedrock exposure.

Prospecting has revealed numerous mineralized boulders however the extent of glacial transport is unclear making it difficult to define drill targets and evaluate the property.



Property wide gold in till gridded percentile map

Solution

In collaboration with Prosperity's geologists, CSA conducted several studies at regional and prospect-scales with the aim of developing a coherent property-wide exploration strategy. A pilot study was conducted over the main occurrence (Rusty Zone) involving grid till sampling for multi-element geochemistry and gold grain studies in order to characterize the 'down-ice' decay in the gold concentration and change in morphology of gold grains in till. This information was used, in conjunction with a new property-wide Quaternary geology map, to interpret regional till geochemistry. It also formed the basis for property-scale targeting through the integration of this newly acquired regional geochemical data with a structural framework interpreted airborne magnetic data. Portable XRF analysis of till samples during the program allowed for prospecting efforts to be guided in real-time.

The Results

The interpretation of property-scale data completed by CSA in collaboration with Prosperity's geologists has generated several new regional target areas. These target areas have been ranked based on gold and pathfinder element abundances and whether or not an interpreted structure of significance occurs within an allowable distance in the up-ice direction. The successfulness of this targeting work can not yet be assessed as the defined target areas have not yet been investigated.

Prosperity Goldfield's Approach

- Prosperity assembled a team of young geologists for their field programs but included a number of senior consultants, including several from CSA Global, to provide specialist support.



Results

- Prosperity completed major exploration programs on the Kiyuk project in 2012 and 2014 that included geological mapping, ground geophysics, extensive till geochemistry and diamond drilling. Drilling ultimately led to the discovery of significant gold mineralisation in bedrock.