

New Carolin Gold Announces Positive Results of Metallurgical Test Program

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WHITE ROCK, Aug. 9, 2012 - [New Carolin Gold Corp.](#) (TSX VENTURE:LAD) is pleased to report that recent metallurgical test results at SGS Canada Ltd. have demonstrated that high gold recoveries are possible using a combination of conventional flotation and cyanidation.

The gold recovery from a metallurgical sample from the McMaster Zone provided to SGS Canada Ltd. was 91%. In combination, flotation plus cyanidation of the float tail yielded 97.9% recovery.

A metallurgical sample, with head grade of the composite assaying 3.70 g/t gold, 1.59% S, 0.052% As and 0.55 g/t silver was provided to SGS Canada Ltd. for gold recovery testing. The sample was core from the McMaster Zone which assayed 3.96 g/t gold over 27.6 metres [DDH 32 - 09, from 32.4 to 60.0 metres, see press release January 12, 2010].

This test work was conducted to support the development of a preliminary economic assessment for the former producing Carolin Mine and the McMaster Zone. Mineralization of the McMaster Zone is similar to that of the Carolin Mine. There is no core available from the historical drilling of the Carolin Mine.

A variety of metallurgical tests were conducted to characterize the sample response. The key results were:

- Gravity gold recovery of 8.5% at 106 micron (P80) using Knelson MD-3 separator.
- Direct cyanidation gold extraction of 69.4% after grinding sample to 62 micron (P80) and leaching in a cyanide-in-leach mode for 48 hours. Cyanide and lime consumptions were 0.58 and 0.59 kg/t respectively.
- Heap Leach simulated test yielded 14.9% gold extraction at -1 inch crush size and 192 hours of bottle roll leaching. Cyanide and lime consumptions were 0.46 and 0.17 kg/t, respectively.
- Flotation gold recovery of 91.3% into a rougher concentrate containing 39.7 g/t Au, 7.21 g/t Ag and 16.7% S.
- Direct cyanidation of the flotation concentrate yielded a gold recovery of 59.7% indicating that the concentrate is modestly refractory.
- Direct cyanidation of the flotation tailing yielded a gold recovery of 75.7%.
- The flotation concentrate is currently undergoing testwork to demonstrate that autoclave oxidation – cyanide-in-leach (CIL) provides a viable route for gold recovery from the concentrate. These results will be reported when complete.
- The Standard Rod Mill Work Index was determined to be 16.3 kWh/tonne and is considered medium hard.
- Standard acid-base accounting test indicates that the tailings are acid consuming

SUMMARY

The results to date indicate that it is possible to concentrate most of the gold values in a small mass of material for further treatment. The combination of flotation yields 91.3% gold recovery and cyanidation of the flotation tailings yields 75.7% gold recovery. In combination, flotation plus cyanidation of the float tail yielded $(91.3 + 75.7 \times (100-91.3)/100 = 97.9\%)$ recovery. The recovery of gold by pressure oxidation and CIL of the autoclave residue is currently being tested

Detailed presentation of results follows in the body of this release.

Metallurgical Testing and Results

Gravity:

A single two stage gravity separation test was completed on the master composite ground to 80% passing 106 micron and processed through a Knelson MD-3 concentrator. The Knelson concentrate was upgraded further by treatment on a Mozley mineral separator. The Mozley concentrate was assayed to extinction for Au while the Mozley and Knelson tailings were blended, sampled and assayed for Au. The combined gravity tailings were used in downstream flotation tests. The summary of the gravity test procedures is presented in the following table.

Table: Summary of Gravity Separation

	Wt	Wt %	Assay -	g/t		Distribution -	%
			Au		Au		
Mozley Streams							
Mozley Conc		8.91		0.15		211	8.5
Combined tail sample				5991		99.9	3.38
Knelson Calc. Feed				6000		100	3.69
Direct head grade				3.70			100

The results indicate that only 8.5% of gold were recovered from the master composite by gravity separation and the concentrate assayed 211 g/t Au. These results indicate that gravity may be used as part of the metallurgical treatment process, but that additional processing is required to achieve a high overall gold recovery.

Direct Cyanidation Test on Whole Ore

A standard bottle roll test was conducted on whole ore at 80% passing 62 micron. The pH during the leach was maintained between 10.5 and 11. The leach duration was 48 hours and 4 intermediate kinetics samples were collected at 2 hours, 5 hours, 8 hours and 24 hours. The cyanide leach tests produced ~69.4% gold recovery. The leaching kinetics of gold recovery are average by reaching maximum recovery plateau within 20-24 hours. The cyanide and lime consumption is considered as moderate at 0.58 kg/t and 0.59 kg/t. The gold recovery by cyanide leaching of the master composite is considered as moderately amenable. Further test work is recommended to determine the optimized leach conditions, grind effect and special variability.

Heap Leach Amenableability Test

The amenability of this sample to heap leaching was evaluated in an eight day coarse bottle roll test conducted at the selected crush size of -1". Test conditions applied included 40% solids, pH 10.5 and 1.0 g/L of NaCN. The amenability for heap leaching was low at 14.9% gold recovery. The cyanide and lime consumption is low at 0.46 kg/t and 0.17 kg/t, respectively. The sample does not appear to be amenable to heap leaching.

Flotation

The goal of flotation testing was to concentrate the sulfides and the gold in the metallurgical sample into a concentrate for pre-treatment and cyanidation. The results indicate that the material can easily be floated to produce a pyrite-pyrrhotite-arsenopyrite gold concentrate.

Results of the small scale batch flotation test are as follows:

- Gold recovery of 91.3% at grind size of ~ 53 micron
- Sulfur recovery of 88%
- Mass recovery of 8.6% of the flotation feed weight
- Flotation concentrate grade of 39.7 g/t Au and 16.7% sulfide sulfur.

Bond Rod Mill Work Index (RWi)

The Bond rod mill work index (RWi) test was conducted according to the standard Bond procedure. The tested Bond rod mill work index is 16.3 kWh/tonne and is considered medium hard.

Environmental Tests

The Acid Base Accounting (ABA) and Net Acid Generating (NAG) tests were conducted on flotation tailings (53 micron). The net neutralization potential is 140.6 kg H₂SO₄/t, which indicates that the tailings are acid consuming. This is in agreement with historical test work conducted by Lakefield Research Ltd. in 1996 (now SGS Canada Ltd.).

Qualified Person

Dr. David Dreisinger, P.Eng., F.C.I.M., F.C.A.E., is the Qualified Person (NI 43-101) who supervised the preparation of the technical information in this news release. Dr. Dreisinger is Professor and Chairholder, Industrial Research Chair in Hydrometallurgy at the University of British Columbia (Vancouver, Canada) and consults to the worldwide metallurgical industry through Dreisinger Consulting Inc.

The Company's CEO, Bruce Downing, stated, "The Company is more than encouraged by these metallurgical results, as historic recoveries from production at original Carolin Mine were poor (roughly 52%). These new metallurgical tests are very encouraging and indicate substantially increased recoveries are not only possible, but likely. Demonstrating 90%+ recoveries is a real testament to economic viability of the Ladner gold project going forward, especially given gold prices today."

About New Carolin Gold Corp.

[New Carolin Gold](#) is a Canadian-based junior mineral exploration and development company engaged in the acquisition, exploration, evaluation and development of 144 sq km of contiguous mineral claims, collectively known as the Ladner Gold Project, located along the prospective and under-explored Coquihalla Gold Belt located in southeastern British Columbia, which is host to several historic small gold producers including the Carolin Mine, Emancipation Mine, Pipestem Mine and numerous gold prospects.

For further information please visit the website at www.newcarolingold.com

ON BEHALF OF THE BOARD OF DIRECTORS

Bruce W. Downing, M.Sc., P.Geo, Hon.FEC
President & Chief Executive Officer

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