

21 October 2019

## **Cora Gold Limited Metallurgical Testwork Results**

Cora Gold Limited ('Cora Gold', 'Cora', or 'the Company'), the West African focused gold exploration company, is pleased to announce that it has received metallurgical testwork results from oxide samples from its Sanankoro Gold Discovery, Southern Mali ('Sanankoro' or 'the Project'). These complement the preliminary metallurgical testwork results previously reported (see news releases dated 18 March 2019 and 26 June 2019).

### **Highlights**

- Metallurgical testwork undertaken by Wardell Armstrong International ("WAI") to a level considered suitable for inclusion in a Scoping Study
- Samples were selected to represent different host lithologies and depth profiles
- Approximately 207 kg of oxide material was tested, from the Selin, Zone A and Zone B prospects
- The more competent sap rock, derived from deeper in the weathering profile, was characterised as 'very soft' on the crusher, abrasion and rod mill work indices, and 'medium' on the Bond Ball Mill Index
- In whole ore leach tests, all the lithological groups reported gold ('Au') recoveries ranging from 92.4% - 96.7% without oxygen addition, using an optimised 106-micron grind size and a relatively low concentration of cyanide (0.5 g/l)
- Combined Au recovery into a gravity concentrate with leached tailings ranged from 95.4% to 98.3%. Test work on the extraction of gold from the concentrate itself was inconclusive with further work recommended
- Testing for environmental characteristics confirmed that the leach residues are neither acid generating nor carry toxic elements at hazardous levels
- A column leach test over 95 days was continuing to leach Au when the programme was suspended with 56% Au recovery recorded at that time

**Jonathan Forster, CEO, comments** *"The results from this comprehensive Scoping Study level of metallurgical testwork on a variety of oxide ore types and depths at Sanankoro has continued to yield a very encouraging characteristics profile for the processing of oxide gold. The confirmation that the oxides are soft and will require only moderate grinding to a relatively coarse grind size, with only modest concentrations of cyanide and yet still able to generate gold recoveries well in excess of 90%, is particularly welcome. This points to the potential for a lower cost processing route, which in conjunction with anticipated lower mining costs, should help to support the ongoing Scoping Study.*

*Although gold recoveries from the column leach don't match that of the cyanide leach approach, it is reassuring that the result obtained is considered a minimum with further upside potential if a*

*programme is pursued over a greater length of time. This work shows that heap leach, with expected lower capex, may still be considered as an option.”*

## **Technical Detail**

### **Samples Tested**

The preliminary testwork focused on oxidised volcanic and carbonaceous phyllite from the Selin Prospect.

This work focused on the potential for variability of the oxides and included 187 individual reverse circulation (“RC”) samples weighing about 161.9 kg and 37 core samples weighing 45.8 kg. The samples represented complete mineralised drill intercepts at depths that ranged from 18m through to 120m. The samples were from the three current primary target zones, being Selin, Zone A and Zone B. The samples were combined into lithological and zonal groupings as follows:

- i) A group called “Sandstones” derived from mineralised oxide intervals at Selin hosted primarily in sandstones with subordinate volcanics.
- ii) A group called “Carbonaceous phyllite” derived from mineralised oxide intervals of carbonaceous phyllite at Selin.
- iii) A group called “Zone A/B” derived from mineralised oxide intervals from both zones hosted in sandstones, siltstones and minor carbonaceous phyllite.

The spread of lithologies, geographic distribution and depths has provided for a reasonable evaluation of the variability of metallurgical responses that might be expected across Sanankoro, including the range of oxide types from the very soft, near surface saprolite through to the harder sap-rock which lies closer to the fresh rock boundary. In particular, the crushing and grinding test work (“comminution”) relied on the harder sap rock samples.

## **Results**

**Head Grade;** screen fire assay was undertaken on each sample group to determine the distribution of coarse gold (+ 75 micron) to fine gold and to determine the head assay of the samples. The coarse gold represented 18-35% of the gold content, with head grades assayed as: Sandstone 1.93 g/t Au, Carbonaceous phyllite 1.89 g/t Au and Zone A/B 1.47 g/t Au.

**Comminution;** a composite core sample derived from Zones A and B representing sap rock material. The results showed the oxide to be very soft with low crusher, abrasion and rod mill work index values. The Bond Ball Mill Work Index value was classified as “Medium” with a value of 12.01 kWh/t.

**Whole Ore Leach Testwork;** each lithological group was subjected to a series of whole ore cyanide leach tests to investigate the effect of a range of variables on the amount of gold and silver that could

be recovered. These variables included grind size, cyanide (“CN”) strength and the use of oxygen both for pre-treatment and during leaching of the oxide material.

The three groups of lithologies all performed very similarly, with the Zone A/B samples typically responding marginally better.

At a relatively coarse grind size of 80% passing 150 microns and a CN strength of 1 g/l in air, the recovery range was 93.7-94.3%.

When leached at a grind size of 80% passing 106 microns, which was determined to be the optimum size for the remainder of the tests, the following was reported:

- 1.00 g/l CN strength in air, Au recovery of 94.9-96.6 %
- 1.00 g/l CN strength in O<sub>2</sub>, Au recovery of 95.7-97.1% (3L/Min O<sub>2</sub>)
- 0.50 g/l CN strength in air, Au recovery of 92.4-96.7%
- 0.25 g/l CN strength in air, Au recovery of 91.6-96.5%

**Gravity Testwork;** bulk two-stage sequential gravity testing at 212 micron and 75 microns was conducted to investigate the amount of gold that could be recovered from each sample using a gravity process. The resulting gravity concentrates were then subjected to intensive cyanide leaching using 20g/l cyanide whilst the gravity tailings were leached using 0.5g/l and 1.0g/l cyanide solutions.

The recovery of gold by leaching of the gravity tailings was essentially independent of the strength of CN used with a very similar result for each test. The recovery of gold into a gravity concentrate was as follows:

Lithology Group	Au Recovered into Concentrate	Gravity Tailings 0.5 g/l CN Leached Au Recovered	Total Au Recovered Gravity concentrate
Carbonaceous phyllite	37.2%	91.0%	94.3%
Sandstone	39.5%	92.8%	95.6%
Zone A/B	52.8%	94.6%	97.4%

A final step in the gravity testwork looked at the recovery of the gold from the gravity concentrate. As might be expected, a recovery of 99.3% of Au in the gravity concentrate from the sandstone sample was achieved, bringing overall recovery to 95.4%. The gold recoveries in the carbonaceous phyllite and Zone A/B gravity concentrate samples were 75.6% and 76.5% respectively, an unusual result; this lowers the overall gravity testwork gold recoveries to 83.5% and 82.2% respectively. An explanation for the lower recovery of the gold from the concentrate will be checked in a future programme, but there is suspicion that very coarse gold (perhaps millimetric, which is not uncommon in the oxides) failed to fully dissolve and / or gold was not fully liberated when collected in the + 212 micron gravity stage.

## Environmental Testwork

Both acid-base accounting (“ABA”) and net acid generation (“NAG”) testing was conducted on a composite sample of oxide leach residue to investigate the potential for the material to become acid generating. The results of both the ABA and NAG tests showed the oxide leach residue to be non-acid generating.

A separate toxicity characterisation leaching procedure testing did not indicate the presence of any potentially hazardous elements at elevated levels.

### **Heap Leach**

Subsequent to the preliminary metallurgical testwork programme, a single column leach test was conducted on an oxide composite sample derived from drill core material sourced from Selin and Zone A in order to simulate potential heap leach kinetics.

The 40 kg composite sample was agglomerated with 22.5 kg of cement and together placed in a 2m x 150mm column which was irrigated for 95 days with a CN solution to maintain a 1 g/l concentration. The result of the column leach test showed a gold recovery of 56.3%. When compared with the results of the previous coarse ore bottle roll tests, which had achieved gold recoveries of 78.4% (SD0005) and 66.8% (SD0006), the calculated gold recovery from the Master Composite was seen to be lower by approximately 16.6%, based on the average of the coarse ore bottle roll test results, despite the significantly longer leach residence time.

Analysis of the column leach kinetics indicates that the recovery of gold was continuing to increase at the time testing was suspended and that higher metal recoveries would have been achieved if testing had been extended beyond 95 days. Further column tests with optimised cement addition, irrigation rates and leach cycle times are recommended.

### **Market Abuse Regulation (“MAR”) Disclosure**

Certain information contained in this announcement would have been deemed inside information for the purposes of Article 7 of Regulation (EU) No 596/2014 until the release of this announcement.

**Competent persons statement:** Dr Jonathan Forster has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person in accordance with the guidance note for Mining, Oil & Gas Companies issued by the London Stock Exchange in respect of AIM Companies, which outlines standards of disclosure for mineral projects. Dr Forster consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

**\*\*ENDS\*\***

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### **Notes to the Editors**

Cora Gold is a gold exploration company focused on two world class gold regions in Mali and Senegal in West Africa. Historical exploration has resulted in the highly prospective Sanankoro Gold Discovery, in addition to multiple, high potential, drill ready gold targets within its broader portfolio. Cora Gold's primary focus is on further developing Sanankoro in the Yanfolila Gold Belt (Southern Mali), which Cora Gold believes has the potential for a standalone mine development. Cora Gold's highly experienced and successful management team has a proven track record in making multi-million-ounce gold discoveries which have been developed into operating mines.