

# TANZANIAN GOLD CORPORATION

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## Positive Results from Metallurgical Test Work at the Buckreef Gold Project

**FOR IMMEDIATE RELEASE** – February 25, 2021

TORONTO, February 25, 2021 (GLOBE NEWSWIRE) - Tanzanian Gold Corporation (TSX:TNX) (NYSE American:TRX) (TanGold or the Company) (operating through its wholly owned subsidiary in Tanzania) and its joint venture partner, The State Mining Company (STAMICO), announces that it has received initial and highly favourable metallurgical test results from the sulphide component of the Buckreef Gold Mine (Buckreef) mineral resource.

SGS Canada Inc. (SGS) was retained to complete initial metallurgical test work at their Lakefield facility on the sulphide component of the mineral resource. SGS flowsheets will be a cornerstone of the feasibility study and help prove the viability of the project to financiers and stakeholders as Buckreef progresses towards full operation. SGS has reviewed the information in the press release.

The initial metallurgical test work is now concluding. SGS has now been commissioned to undertake the metallurgical variability phase for Buckreef.

### Highlights

- Three diamond drill core samples were taken from the fresh rock ('sulphide' mineral resource) of the Buckreef deposit for the purposes of metallurgical test work. The following intercepts and gold recovery rates were observed (see figure on the subsequent page):
  - **MC01: 0.54 g/t over 78.88m – 94.1%**
  - **MC02: 19.4 g/t over 27.99m – 95.4%**
  - **MC03: 1.71 g/t over 52.53m – 85.3%**
- SGS have advised that a flowsheet consisting of crush/grind and flotation followed by regrinding of the rougher concentrate and cyanidation at site, along with cyanidation of the flotation tailing is currently the metallurgically optimal mill circuit. Dore will be produced at site.
- Test work is ongoing on the MC03 sample, for the purpose of improving the gold recovery rate. The same test work can be applied to the MC01 and MC02 samples.
- SGS have now been commissioned to complete feasibility level metallurgical testing that will focus on the first 5-7 years of production at Buckreef.

Mr. Stephen Mallowney, CEO (TanGold) commented, "the initial metallurgical results from a reputable and prestigious organization (SGS Lakefield) have indicated that a well-known and simple flowsheet for our large high-grade deposit and plant is most likely. The initial recoveries are excellent, and I look forward with confidence to the results of the variability testing."

Mr. Andrew Cheattle, COO (TanGold) added, “the initial metallurgical recovery results are excellent and typical of Archean shear zone type hosted gold deposits. These results also firmly underscore our overall plan to have two plants with two different flowsheets; one plant to treat gold bearing oxides and a second plant to treat gold bearing sulphide or primary materials. We look forward to continuing to work with SGS on the metallurgical study.”

## Further Details of Test Work

In 2020, three diamond drill holes were completed for the purposes of initial, modern era metallurgical test work. Diamond drill hole details are tabulated below:

Hole ID	Hole Type	Composite ID	Drill Holes Location				Sample Depth		Width (m)	Grade (g/t)	Recovery %	Comment
			Easting (m)	Northing (m)	RL (m)	Azimuth Dip	From (m)	To (m)				
BMMT001	DD	MC01	391562.00	9658608.00	1220.00	303 -72	77.50	156.80	78.88	0.54	94.1	Partial to completely altered mineralised shear zone 5% quartz veining
BMMT002	DD	MC02	391320.00	9658036.00	1223.00	307 -69	239.9	267.89	27.99	19.4	95.4	Partial to completely altered mineralised shear zone
BMMT003	DD	MC03	391593.00	9658358.00	1217.00	310 -63	222.81	275.34	52.53	1.71	85.3	Partial to completely altered mineralised shear zone With graphitic altered fractured surfaces

The sample chain of custody was managed by SGS Tanzania team, as per local sample export regulations. Reported results are from composite diamond drilled core samples. Intervals of core for metallurgical testwork analyzed are full HQ core size. Diamond drilled core has been a HQ size and recoveries are consistently 100% across all drill holes intercept reported.

Sampling and analytical procedures are subject to a comprehensive quality assurance and quality control program. The QAQC program involves insertion of duplicate samples, blanks and certified reference materials in the sample stream. Gold analyses are performed by screened metallicity assaying protocols.

Sample Preparation and analysis are performed by independent SGS (Lakefield) Laboratory, Ontario, Canada

The samples were extracted as fresh drill core samples from areas/zones with known lithologies from within the current projects open pit limit. The samples were selected by TanGold and confirmed by the SGS geological services group that worked together doing the metallurgical sample selection. The investigation included ore characterization, comminution, mineralogy, head analyses, and potential for gold preg robbing, and evaluated the amenability of the three samples to two primary processing flowsheet options, that incorporate comminution (crushing and grinding), gravity separation, flotation and cyanidation unit operations. A high-level summary of the test work is provided below:

- Bond ball mill work index values were 18.3 and 18.5 in MC01 and MC02 respectively. MC03 was slightly softer at 17.1. The hanging wall (HW) comp was at 17.1 and the foot wall (FW) was 18. All of these comminution samples are classified as “Hard” when compared to the SGS comminution database. All of these samples are somewhat softer than the values indicated for Buckreef ore as seen in the historical documentation.
- Gravity separation testwork completed to date by SGS has indicated poor gold recoveries, averaging just under 5%. This seems to conflict somewhat with indications in the historical testwork records which indicated potential gold recoveries of >30%.
- Direct cyanide leaching of the gravity separation tailing indicated that composites MC01 and MC02 yielded ~80% gold extraction at a grind size of ~150 µm (P80). The softer material, MC03, yielded 72% gold extraction at the same approximate grind size. Grinding significantly finer, to ~75 µm (P80), resulted in 8-9% additional gold extraction (to 88-89%) from MC01 and MC02 material. MC03 gold extraction increased to 79% with the same reduction in leach feed size. Tests were run over 48 hours and gold extraction had more-or-less ceased after 24 hours, with only minor additional gold extraction up to 48 hours retention time.
- Rougher flotation tests were conducted on gravity tailing at grind size P80’s of ~150, ~120 and ~90 µm. Mass pulls of ~13-20% were observed. Sulphide recovery was very stable (97-98%) and showed no impact from coarser/finer grinding. Gold recoveries improved only slightly, in MC01 and MC02 tests, with finer grinding, from ~87-90%. MC03 gold recovery remained rather stable at ~90% across the feed size test series.

## **About Tanzanian Gold Corporation**

Tanzanian Gold Corporation along with its joint venture partner, STAMICO is building a significant gold project at Buckreef in Tanzania that is based on an expanded Mineral Resource base and the treatment of its mineable Mineral Reserves in two standalone plants. Measured Mineral Resource now stands at 19.98MT at 1.99g/t gold containing 1,281,161 ounces of gold and Indicated Mineral Resource now stand at 15.89MT at 1.48g/t gold containing 755,119 ounces of gold for a combined tonnage of 35.88MT at 1.77g/t gold containing 2,036,280 ounces of gold. The Buckreef Project also contains an Inferred Mineral Resource of 17.8MT at 1.11g/t gold for contained gold of 635,540 ounces of gold. The Company is actively investigating and assessing multiple exploration targets on its property. Please refer to the Company's Updated Mineral Resources Estimate for Buckreef Gold Project, dated May 15, 2020, for more information.

Tanzanian Gold Corporation is advancing on three value-creation tracks:

1. Strengthening its balance sheet by expanding near-term production to 15,000 - 20,000 oz. of gold per year from the processing of oxide material from an expanded oxide plant.
2. Advancing the Final Feasibility Study for a stand-alone sulphide treating plant that is substantially larger than previously modelled and targeting significant annual gold production.
3. Continuing with a drilling program to further test the potential of its property, Exploration Targets and Mineral Resource base by: (i) identifying new prospects; (ii) drilling new oxide/sulphide targets; (iii) infill drilling to upgrade Mineral Resources currently in the Inferred category; and (iv) a step-out drilling program in the Northeast Extension.

Andrew M. Cheatle, P.Geo. is the Company's Qualified Person as defined by the NI 43-101 who has verified the data disclosed in this news release and has otherwise reviewed and assumes responsibility for the technical content of this press release.

## **About SGS**

SGS is the world's leading inspection, verification, testing and certification company. They are recognized as the global benchmark for quality and integrity. With more than 89,000 employees, SGS operates a network of more than 2,600 offices and laboratories around the world. Bankable flowsheets help prove the viability of a gold mining project to financiers and stakeholders. SGS has, in this regard, earned a global reputation as a proven leader in the development of transparent, bankable flowsheets for a wide range of mineral and metal extraction operations.

For further information, please contact Michael Martin, Investor Relations, [m.martin@tangoldcorp.com](mailto:m.martin@tangoldcorp.com), 860-248-0999, or visit the Company website at [www.tangoldcorp.com](http://www.tangoldcorp.com)

*The Toronto Stock Exchange and NYSE American have not reviewed and do not accept responsibility for the adequacy or accuracy of this release.*

*U.S. Investors are urged to consider closely the disclosure in our SEC filings. You can review and obtain copies of these filings from the SEC's website at <http://www.sec.gov/edgar.shtml>*

#### **Forward-Looking Statements**

*This press release contains certain forward-looking statements as defined in the applicable securities laws. All statements, other than statements of historical facts, are forward-looking statements. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "hopes", "intends", "estimated", "potential", "possible" and similar expressions, or statements that events, conditions or results "will", "may", "could" or "should" occur or be achieved. Forward-looking statements relate to future events or future performance and reflect Tanzanian Gold management's expectations or beliefs regarding future events and include, but are not limited to, statements with respect to the estimation of mineral reserves and resources, recoveries, subsequent project testing, success and viability of mining operations, the timing and amount of estimated future production, and capital expenditure.*

*Although TanGold believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance. The actual achievements of TanGold or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors. These risks, uncertainties and factors include general business, legal, economic, competitive, political, regulatory and social uncertainties; actual results of exploration activities and economic evaluations; fluctuations in currency exchange rates; changes in costs; future prices of gold and other minerals; mining method, production profile and mine plan; delays in exploration, development and construction activities; changes in government legislation and regulation; the ability to obtain financing on acceptable terms and in a timely manner or at all; contests over title to properties; employee relations and shortages of skilled personnel and contractors; the speculative nature of, and the risks involved in, the exploration, development and mining business. These risks are set forth under Item 3.D in Tanzanian Gold's Form 20-F for the year ended August 31, 2020, as amended, as filed with the SEC.*

*The information contained in this press release is as of the date of the press release and TanGold assumes not duty to update such information.*

#### **Note to U.S. Investors**

*US investors are advised that the mineral resource and mineral reserve estimated disclosed in this press release have been calculated pursuant to Canadian standards which use terminology consistent with the requirements CRIRSCO reporting standards. For its fiscal year ending August 31, 2021, and thereafter, the Company will follow new SEC regulations which uses a CRIRSCO based template for mineral resources and mineral reserves, that includes definitions for inferred, indicated, and measured mineral resources.*