

# Newcore Gold Announces 94.7% Gold Recoveries in Column Testwork for the Sewum and Boin Deposits at the Enchi Gold Project, Ghana

July 15, 2021

TSX-V: NCAU, OTCQX: NCAUF

**Vancouver, BC - Newcore Gold Ltd. ("Newcore" or the "Company")** (TSX-V: NCAU, OTCQX: NCAUF) is pleased to announce positive results from four column tests completed as part of the ongoing metallurgical program at the Company's 100%-owned Enchi Gold Project ("Enchi" or the "Project") in Ghana. An average gold recovery of 94.7% was achieved from column testwork completed on two composite samples from the Sewum Gold Deposit ("Sewum") and two composite samples from the Boin Gold Deposit ("Boin").

## **Highlights from Column Test Results**

- Four Column Tests Completed, Average Gold Recovery of 94.7% Achieved
  - A total of four column tests (two from Sewum and two from Boin) returned an average gold recovery of 94.7%, with a recovery range of 91.7% to 97.7%.
- Low Reagent Consumption
  - All samples showed modest cyanide consumption of less than 1 kilogram per tonne ("kg/t"), with a 3 kg/t lime (hydrated) addition to maintain a pH above 10.5.
- Further Metallurgical Testwork Ongoing
  - Another column test is underway on a composite sample from the Kwakyekrom Deposit.
  - Additional bottle rolls and column tests will be completed on samples from each of the four deposits (Sewum, Boin, Nyam, Kwakyekrom) which comprise the Inferred Mineral Resource at Enchi.

Greg Smith, Vice President of Exploration of Newcore stated, "This first set of column tests completed on material from the Enchi Gold Project returned consistent results with high recoveries for all four composite samples, highlighting the amenability of Enchi to heap leach gold recovery. These samples are representative of the oxide and transitional material from the two largest deposits, Sewum and Boin, which together currently comprise approximately 87% of the Enchi Inferred Mineral Resource Estimate. Further metallurgical testing is ongoing and will include a range of tests designed to further characterise and optimise the potential recoveries at the Project."

# Metallurgical Testing Summary

A total of four composite samples, two from Boin and two from Sewum, were submitted for column testwork to the Intertek Lab located in Tarkwa, Ghana, approximately five hours by paved road from the Enchi Gold Project. Material for the metallurgical samples consisted of the remaining reverse circulation ("RC") chips collected during the 2020 - 2021 RC drilling program which had previously been provided to Intertek for bottle roll tests. Samples for metallurgical testing consisted of 5 kilogram ("kg") splits created using a riffle splitter of the remaining material from the RC drill chips and are considered representative. The samples

were selected to represent the two largest deposits on the Project, Sewum and Boin, and consisted of blended oxide and transitional material. For each deposit, samples included a range of gold grades, weathering intensities, and came from various areas of the deposits.

The first composite ("Composite 1") was prepared using six samples from two drill holes representing approximately one kilometre of strike length from Boin Central with a total weight of 15.9 kgs. The second composite ("Composite 2") was prepared using six samples from two drill holes spaced three kilometres apart from Boin North and South weighting 15.8 kg. The third composite ("Composite 3") was prepared using six samples from two drill holes over 200 metres of Sewum Ridge with a total weight of 16.0 kg. The fourth composite ("Composite 4") was prepared using six samples from two drill holes from two drill holes from two drill holes from two drill holes apart by 1.5 kilometres and weighted 17.6 kg.

Recovery for the four samples averaged 94.7 %, with a range of 91.7% to 97.7%

Sample	Deposit	Grade Au g/t	<b>Recovery Rate</b>	
Composite #1	Boin Central	1.49	91.95%	
Composite #2	Boin North & South	1.02	97.50%	
Composite #3	Sewum Ridge	1.11	97.74%	
Composite #4	Sewum CH & Extension	1.51	91.70%	
		Average	94.72%	

Table 1. Column Tests - Grade and Average Recovery

Composite samples were homogenized by mixing the remaining material not used for the bottle roll tests. The entire composite sample was then split using a riffle splitter to provide four samples of approximately 4 kgs each. One sample was removed and again split into a further four fractions of approximately 1,000 grams each, then used for: screening and grading analysis, head sample analysis, and five-day coarse bottle roll leach test.

# Screening and Grading Analysis of Head Samples

A size analysis was done on all the composite samples. The samples were tested at seven screen sizes and included analyses for percent mass. The samples were assayed for gold which showed that gold was present in all size fractions analysed. The distribution shows relatively consistent gold grades for all size fractions within a tight range of 0.80 grams per tonne gold ("g/t Au") to 1.57 g/t Au, with one outlier grading 2.85 g/t Au. Results include 40% to 50% passing 150 microns indicating that agglomeration is warranted, and each of the four composite samples were agglomerated at 20 kg/t of Portland cement.

Sieve	Composite #1		Composite #2		Composite #3		Composite #4	
	% mass	Au g/t						
+2mm	24.05	1.46	12.57	2.85	16.93	0.99	9.49	1.03
+1mm	4.50	1.11	6.63	0.93	9.22	0.90	4.21	0.99
+250µm	13.85	1.29	23.30	1.11	22.85	0.80	22.95	0.81
+150µm	9.01	1.17	12.61	0.81	9.53	1.03	14.04	1.01
+106µm	9.12	1.24	7.40	1.13	5.84	1.31	15.61	0.80
+75µm	12.15	1.57	18.13	0.98	3.66	1.13	13.62	0.86
-75µm	27.32	0.97	19.35	1.32	31.97	1.55	20.08	0.93

# Table 2. Size Analysis by Composite Sample

### **Head Sample Analysis**

Using the results of the sizing and grading analysis, a head grade was calculated for each of the composite samples. The results were then compared to the head grade assays which were completed on the 50-gram subsamples. The results compared well for three of the composites (#1, #2 and #3), with a wider but acceptable range for Composite #4 (1.51 vs 0.90 g/t Au).

Gold Grade g/t	Composite #1	Composite #2	Composite #3	Composite #4	Average
Assayed Grade	1.49	1.02	1.11	1.51	1.28
Calculated Grade	1.25	1.30	1.14	0.90	1.15

Table 3. Grade Analysis by Composite Sample

## Five Day Coarse Bottle Roll Leach

A coarse subsample weighting one kilogram was prepared from each composite, with a five day coarse bottle roll then completed. Results ranged between 80.6% and 88.0%, with an average recovery of 85.3%. For Composite #1, 57.5% of the gold was recovered on the first day with this increasing consistently to 88.0% by the fifth day. For Composite #2, the recovery on the first day was 45.9%, increasing to 80.6% by the fifth day. For Composite #3, the dissolution curve was similar to Composite #2 with the recovery moving from 40% to 84.7% by the fifth day. Composite #4 had an initial day recovery of 50.5%, 62.1% for the second day, 69.8% for the third day, 71.9% for the fourth day, and 87.9% for the fifth day. In all cases leaching was ongoing after the five days with ultimate recoveries expected to continue to increase with additional time.

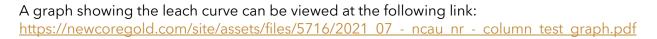
## **Metallurgical Testing - Column Tests**

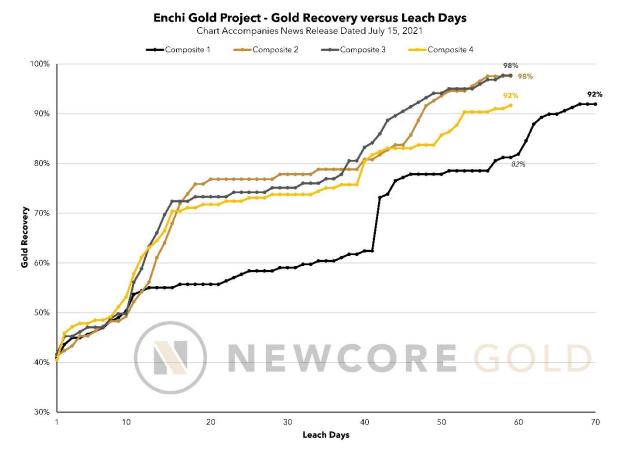
Four 10 kgs closed-cycle column leach tests were conducted on the samples as received. The test charge was loaded into 150 mm in diameter by 1.5-metre-tall PVC columns. 10 kg of the individual samples were agglomerated in a rolling drum using Portland cement at a 20 kg/t addition rate and then allowed to air dry for three days. After the samples had been air dried, they were loaded into the columns with the columns tilted at an angle to avoid stacking before being set upright. The column was then allowed to sit for a day before the initial level was taken to determine the slump.

The leaching parameters used in this column leach test included the addition of approximately 3 kg/t of lime which was blended into each feed solution and a cyanide concentration of 1,000 ppm. The initial feed solution was prepared by adding lime to tap water to obtain a solution pH of 11.00 followed by the addition of one gram of sodium cyanide per litre of solution with a solution application rate of 10L/h/m<sup>2</sup> for all samples. The column testwork was conducted under a closed cycle for 60 days for Composites #2, #3, and #4 and 70 days for Composite #1. All solution samples were assayed for gold and pH and free sodium cyanide was analyzed and recorded. Leach residue was thoroughly washed, dried, screened and analyzed for gold by fire assay.

The column tests are aimed at simulating the response to leaching of the sample with the emphasis on establishing the gold dissolution characteristics (rate and extent), reagent consumption, and the degree of slumping within the ore bed. All samples showed amenability to heap leaching, with recoveries achieving more than 90% after 60 days for Composites #2,

#3, and #4. Composite #1 achieved a recovery in excess of 90% after an additional 10 days of leaching.





All samples showed modest cyanide consumption of less than 1 kg/t with the addition of 3 kg/t lime (hydrated) to maintain a pH above 10.5. The slump for all samples was above 10%, which may have been a result of lower binder concentration as a result of the fine nature of the material tested. The samples responded well to a percolation rate of 10 L/m<sup>2</sup>/hr with some minimal flooding. The optimum percolation rate will be investigated and optimized further.

Sample ID	Leach Time	Slump %	Reagent Consumption kg/t			
			NaCN	Lime	Cement	
Composite #1	70 days	12.6	0.793%	3	20	
Composite #2	60 days	16.7	0.798%	3	20	
Composite #3	60 days	33.3	0.825%	3	20	
Composite #4	60 days	14.3	0.817%	3	20	
	Average	19.2%	0.81%	3	20	

Table 4. Summary	of Column Leach Tests
------------------	-----------------------

The column leach test program has shown that the gold in the ore samples tested is readily leachable and amenable to heap leaching. The recoveries achieved are considered high and are interpreted to indicate the strong amenability to heap leaching. The particle size distribution and size by size analysis performed on both the head and residue after leach showed that the maximum gold recovery occurred in the finer fractions as compared to the coarser size fractions. The agglomeration and percolation rates will be further tested and optimized. Further work is planned to define the specific leach characteristics for different parts of the four deposits which comprise the Mineral Resource Estimate at Enchi.

## Screening and Grading Analysis of Tails Samples

A size analysis was done on all the tails from the composite sample column tests. The samples were tested at seven screen sizes including analyses for percent mass and assayed for gold. The distribution shows consistently low grades of gold for all size fractions within a tight range of 0.00 g/t Au to 0.18 g/t Au, with one outlier grading 0.31 g/t Au. Results are reflective of the high overall recoveries obtained for the column tests with a minimal amount of gold remaining in the tails.

Sieve	Composite #1		Composite #2		Composite #3		Composite #4	
	% mass	Au g/t						
+2mm	12.94	0.10	9.99	0.14	12.96	0.00	5.98	0.31
+1mm	8.30	0.18	13.41	0.06	11.22	0.10	12.54	0.06
+250µm	21.16	0.04	24.24	0.04	23.42	0.02	25.31	0.02
+150µm	7.64	0.06	10.47	0.01	7.53	0.02	10.05	0.02
+106µm	5.23	0.00	5.85	0.01	7.21	0.00	11.19	0.00
+75µm	17.36	0.00	12.22	0.01	5.22	0.00	12.24	0.02
-75µm	27.36	0.00	23.82	0.02	32.44	0.00	22.69	0.02
Assayed Grade 0.04			0.04		0.02		0.04	
Calculated	Grade	0.04		0.04		0.02		0.04

Table 5. Size Analysis of Tails by Composite Sample

# **Enchi Gold Project Mineral Resource Estimate**

The Enchi Gold Project hosts a pit constrained Inferred Mineral Resource of 70.4 million tonnes grading 0.62 g/t Au containing 1.41 million ounces gold (see Newcore news release dated June 8, 2021). The Mineral resource estimation practices are in accordance with CIM Estimation of Mineral Resource and Mineral Reserve Best Practice Guidelines (November 29, 2019), and follow CIM Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014), that are incorporated by reference into National Instrument 43-101 ("NI 43-101"). The Mineral Resource Estimate was prepared by independent qualified person Todd McCracken, P. Geo. of BBA E&C Inc. The technical report, titled "Preliminary Economic Assessment for the Enchi Gold Project, Enchi, Ghana" has an effective date of June 8, 2021 and is available under the Company's profile on SEDAR at www.sedar.com.

## 2020 - 2021 Enchi Drilling Program

A 66,000 metre discovery and resource expansion drilling program is underway at Enchi. The program includes both RC and diamond drilling and will include the first deep drilling planned on the Project. This drill program includes testing extensions of the existing resource areas

while also testing a number of high priority exploration targets outside of the Inferred Mineral Resource. Drilling is focused on step out extensions and exploration drilling at the Sewum, Boin, Nyam and Kwakyekrom Deposits. Additional drilling is planned at previously drilled zones that are outside of the resource area (Kojina Hill and Eradi), along with first pass drilling to test a series of kilometre-scale gold-in-soil anomalous zones with no prior drilling (Nkwanta, Sewum South and other anomalies). All zones represent high priority targets based on geological, geochemical and geophysical surface work and previous trenching and drilling.

### **COVID-19 Protocols**

Newcore's first priority is the health and safety of all employees, contractors, and local communities. The Company is following all Ghana guidelines and requirements related to COVID-19. The Company has implemented COVID-19 protocols for its ongoing drill program consisting of the mandatory use of personal protective equipment (including facemasks for all employees), maintaining social distancing, frequent hand washing, and daily temperature checks at the start of each shift.

### **Newcore Gold Best Practice**

Newcore is committed to best practice standards for all exploration, sampling and drilling activities. Drilling was completed by an independent drilling firm using industry standard RC and Diamond Drill equipment. Analytical quality assurance and quality control procedures include the systematic insertion of blanks, standards and duplicates into the sample strings. Samples are placed in sealed bags and shipped directly to Intertek Labs located in Tarkwa, Ghana for 50 gram gold fire assay.

#### **Qualified Person**

Mr. Gregory Smith, P. Geo, Vice President of Exploration of Newcore, is a Qualified Person as defined by NI 43-101, and has reviewed and approved the technical data and information contained in this news release. Mr. Smith has verified the technical and scientific data disclosed herein and has conducted appropriate verification on the underlying data including confirmation of the drillhole data files against the original drillhole logs and assay certificates.

#### About Newcore Gold Ltd.

Newcore Gold is advancing its Enchi Gold project located in Ghana, Africa's largest gold producer<sup>(1)</sup>. The Project currently hosts an Inferred Mineral Resource of 1.4 million ounces of gold at 0.62 g/t<sup>(2)</sup>. Newcore Gold offers investors a unique combination of top-tier leadership, who are aligned with shareholders through their 32% equity ownership, and prime district scale exploration opportunities. Enchi's 216 km<sup>2</sup> land package covers 40 kilometres of Ghana's prolific Bibiani Shear Zone, a gold belt which hosts several 5 million-ounce gold deposits, including Kinross' Chirano mine 50 kilometers to the north. Newcore's vision is to build a responsive, creative and powerful gold enterprise that maximizes returns for shareholders.

#### On Behalf of the Board of Directors of Newcore Gold Ltd.

Luke Alexander President, CEO & Director

NEWCORE GOLD

#### For further information, please contact:

Mal Karwowska | Vice President, Corporate Development and Investor Relations +1 604 484 4399 info@newcoregold.com <u>www.newcoregold.com</u>

(1) Source: Production volumes for 2020 as sourced from the World Gold Council

(2) Notes for Inferred Mineral Resource Estimate:

- 1. CIM definition standards were followed for the resource estimate.
- 2. The 2021 resource models used ordinary kriging (OK) grade estimation within a three-dimensional block model with mineralized zones defined by wireframed solids and constrained by pits shell for Sewum, Boin and Nyam. Kwakyekrom used Inverse Distance squared (ID2).
- 3. A base cut-off grade of 0.2 g/t Au was used with a capping of gold grades varied by deposit and zone.
- 4. A US\$1,650/ounce gold price, open pit with heap leach operation was used to determine the cut-off grade of 0.2 g/t Au. Mining costs of US\$1.40 for oxides, US\$2.10 for transition, and US\$2.60 for fresh rock per mined tonne and G&A and milling costs of US\$6.83/milled tonne. The Inferred Mineral Resource Estimate is pit constrained.
- 5. Metallurgical recoveries have been applied to four individual deposits and in each case three material types (oxide, transition, and fresh rock) with average recoveries of 77% for Sewum, 79% for Boin, 60% for Nyam and 72% for Kwakyekrom.
- 6. A density of 2.20 g/cm<sup>3</sup> for oxide, 2.45 g/cm<sup>3</sup> for transition, and 2.70 g/cm<sup>3</sup> for fresh rock was applied.
- 7. Optimization pit slope angles varied based on the rock types.
- 8. Mineral Resources that are not mineral reserves do not have economic viability. Numbers may not add due to rounding.
- 9. These numbers are from the technical report titled "Preliminary Economic Assessment for the Enchi Gold Project, Enchi, Ghana", with an effective date of June 8, 2021, prepared for Newcore Gold by BBA E&C Inc. in accordance with National Instrument 43-101 *Standards of Disclosure for Mineral Projects* and is available under Newcore's SEDAR profile at www.sedar.com.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

#### Cautionary Note Regarding Forward-Looking Statements

This news release includes statements that contain "forward-looking information" within the meaning of the applicable Canadian securities legislation ("forward-looking statements"). All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this news release. Any statement that involves discussion with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often, but not always using phrases such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved) are not statements relate, among other things, to: statements about the estimation of mineral resources; results of our ongoing metallurgical testwork program; results of our ongoing drill campaign, magnitude or quality of mineral deposits; anticipated advancement of mineral properties or programs; and future exploration prospects.

These forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business. The assumptions underlying the forward-looking statements are based on information currently available to Newcore. Although the forward-looking statements contained in this news release are based upon what management of Newcore believes, or believed at the time, to be reasonable assumptions, Newcore

cannot assure its shareholders that actual results will be consistent with such forward-looking statements, as there may be other factors that cause results not to be as anticipated, estimated or intended. Forwardlooking information also involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others: risks related to the speculative nature of the Company's business; the Company's formative stage of development; the Company's financial position; possible variations in mineralization, grade or recovery rates; actual results of current exploration activities; fluctuations in general macroeconomic conditions; fluctuations in securities markets; fluctuations in spot and forward prices of gold and other commodities; fluctuations in currency markets (such as the Canadian dollar to United States dollar exchange rate); change in national and local government, legislation, taxation, controls, regulations and political or economic developments; risks and hazards associated with the business of mineral exploration, development and mining (including environmental hazards, unusual or unexpected geological formations); the presence of laws and regulations that may impose restrictions on mining; employee relations; relationships with and claims by local communities; the speculative nature of mineral exploration and development (including the risks of obtaining necessary licenses, permits and approvals from government authorities); and title to properties.

Forward-looking statements contained herein are made as of the date of this news release and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results, except as may be required by applicable securities laws. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

# Chart Accompanies News Release Dated July 15, 2021 ----- Composite 2 ----Composite 3 Composite 4 ----Composite 1 100% 98% 98% 92% 92% 90% 80% 82% **Gold Recovery** 70% 60% 50% NEWCORE GOL 40% 30% 10 20 30 40 50 60 70 1 Leach Days

# **Enchi Gold Project - Gold Recovery versus Leach Days**