

# IAMGOLD Announces Positive Results from the Essakane Carbon-in-Leach and Heap Leach Project Feasibility Study; Reflecting Increased Cash Flows and Extended Mine Life

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All amounts are in US dollars, unless otherwise indicated.

Toronto, November 6, 2019 - [IAMGold Corp.](#) (TSX: IMG) ("IAMGOLD" or the "Company") today announced positive results from a Feasibility Study ("FS") for the Carbon-in-Leach and Heap Leach Project (the "Project") at its Essakane operation in Burkina Faso, West Africa. The results support an increase in current hard rock carbon-in-leach ("CIL") plant capacity and outlines an economically viable Heap Leach ("HL") facility at the end of CIL operations.

## FEASIBILITY HIGHLIGHTS (100% basis)

- Indicated Resources of 4.878 million ounces grading 0.98 g/t Au, inclusive of reserves on the Essakane Mining Concession, based on a new Resource Model versus the pre-feasibility study ("PFS");
- Proven and Probable Reserves of 3.985 million ounces grading 0.96 g/t Au;
- Mine life of 12 years (2020-2031), with:
  - Mill throughput of 11.7 million tonnes per annum (Mtpa) hard rock equivalent capacity, up from current design of 10.8 Mtpa at 100% hard rock (2020-2026);
  - Heap Leach throughput of 8.5 Mtpa (2027-2031);
- Robust average annual production of 433,000 ounces during CIL operations, representing a 4% increase above CIL output from the previous study, including:
  - Peak year production exceeding 530,000 ounces using CIL;
- Annual production of 73,000 ounces per year of HL production at end of CIL production; achieving an annual gold output from HL similar to previous study, but with 15% lower throughput;
- Minimal capital investment of \$9.0 million required for CIL optimization, with commissioning targeted for Q3 2020;
- Reduction, and deferral, of total HL capital expenditures by \$40 million to \$115 million (2025-2026) from the previous study, while maintaining the same HL production profile;
- After-tax NPV@6% of \$874 million, life of mine direct cash costs of \$778/oz and all-in sustaining costs of \$949/oz;
- Significant increase in HL recoveries to 67% (from 55%) through the use of high pressure grinding rolls (HPGR) edges recycling in closed circuit including agglomeration step and extended leach time;
- 5% increase in average diluted grade of CIL material to 1.24 g/t;
- Future Option retained to process the HL material either through the HL development scenario as described in the FS or, if prevailing metal prices are supportive, through the CIL for improved recoveries and forgo the capital investment in the HL facility;

The FS concluded that increasing CIL plant capacity and postponing the HL operation to the end of LOM defers capital and provides an extension to the life of mine. Optimization work focused on increasing CIL throughput to 11.7 Mtpa (at 100% hard rock equivalent capacity) compared to the current design at 10.8 Mtpa (at 100% hard rock equivalent capacity) with minimal capital of \$9 million. The optimization of the CIL plant would indirectly result in a reduction of the anticipated HL annual throughput from 10.0 Mtpa to 8.5 Mtpa. The production profile of the HL operation remains relatively unchanged as reduced throughput is offset by an improved recovery of gold in HL from 55.0% to 67.0%. The capital cost of the HL facility was reduced by \$40M, for the new scenario, by re-using existing CIL plant equipment (primary & secondary crushing circuits) at the end of CIL life and by optimizing the Heap Leach Pad footprint. The optimization of the Heap Leach Pad footprint allows for the HL infrastructure to remain within the current industrial complex of the mine, versus the PFS scenario which would have required additional land outside of the current complex, thus avoiding impact to communities and farmland.

Steve Letwin, President and CEO of IAMGOLD, commented, "With our self-funding lens in place, the IAMGOLD team reviewed the CIL/HL feasibility study and produced a robust, low cost plan with optionality in the future. I would like to thank our COO Gord Stothart, his project team and our consultants for their excellent work in defining the future plan for Essakane."

The FS was completed by IAMGOLD, with inputs from technical studies completed by other consultants, and has an effective date of November 6, 2019. The FS represents a comprehensive study of the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method has been established and an effective method of mineral processing has been determined. IAMGOLD is using the FS to support a \$9.0 million investment in the current plant to improve its capacity to 11.7 Mtpa (at 100% hard rock equivalent capacity) and plan for a Heap Leach facility to be deployed in 2027. This study supports the updated Mineral Reserve disclosure.

## FS HIGHLIGHTS

Project Economics and Key Parameters		
	PFS	FS
Peak Mining Capacity	70.0 Mtpa	57.0 Mtpa
CIL Design Milling Capacity (100% Hard Rock Equivalent)	10.8 Mtpa	11.7 Mtpa
HL Processing Capacity	10.0 Mtpa	8.5 Mtpa
LOM Average Annual Gold Production (CIL years / oz)	8.5 / 416,000	7 / 433,000
LOM Average Annual Gold Production (HL years / oz)	6.5 / 72,000	5 / 73,649
LOM Average Annual Gold Production (years / oz)	8.5 / 476,000	12 / 283 441
LOM Average Recovery Rate (CIL)	92.1%	92.1%
LOM Average Recovery Rate (HL)	55.0%	67.0%
Mine Life	8.5 years	12 years
LOM Average Direct Cash Costs	\$707/oz	\$778/oz
LOM Average AISC	\$946/oz	\$949/oz
After-tax NPV (6%)		\$874 M
Average diluted Grade CIL	1.17 g/t Au	1.24 g/t Au
Average diluted Grade HL	0.43 g/t Au	0.40 g/t Au
Average LOM Strip Ratio (remaining pit)	2.34:1	2.42:1
Initial Capital Expenditure* (millions),+20%/-15%	\$155	\$115
Gold Price Assumption used in financial analysis	\$1,275/oz	\$1,350/oz

US\$/CA\$ exchange rate 1.25, US\$/â,- exchange rate of: 1.20.

\* Initial capital expenditures exclude fleet

## MINERAL RESOURCES

The Mineral Resource estimate used as the basis for the study is summarized below.

Mineral Resources (100% Basis) - August 31, 2019			
Essakane Mining Concession			
Classification	Tonnes (000)	Grade (g/t Au)	Contained Ounces (000)
Indicated	154,854	0.98	4,878
Inferred	12,823	1.10	454

### Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade which varies between 0.25 and 0.55 g/t Au depending on material type and pit.
3. Mineral Resources are estimated using an average long-term gold price of US\$1,500 per ounce.
4. A minimum mining width of 10 m was used for Falagountou and 10 m for EMZ.
5. Bulk density is estimated by ordinary kriging by weathering type.
6. Mineral Resources are inclusive of Mineral Reserves.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

8. Does not include Mineral Resources at the Gossey satellite deposit which is located on an adjacent exploration concession and which was not included as part of the production study.
9. Numbers may not add due to rounding.

## MINERAL RESERVES

The tonnes, grades, and classification of the Mineral Reserves captured within the FS mine plan are summarized below.

Mineral Reserve (100% Basis) - August 31, 2019				
Process	Classification	Tonnes (000)	Grade (g/t Au)	Contained Ounces (000)
CIL	Proven	-	-	-
	Probable	72,690	1.36	3,181
	Probable (Stockpile)	13,501	0.59	255
	Total CIL	86,191	1.24	3,436
Heap Leach	Proven	-	-	-
	Probable	35,058	0.39	439
	Probable (Stockpile)	8,049	0.42	110
	Total Heap Leach	43,107	0.40	549
Total		129,299	0.96	3,985
Waste within Designed Pit		261,434		
Ore within Designed Pit		107,748		
Total Tonnage within Designed Pit		369,172		

### Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.
2. Mineral Reserves estimated assuming open pit mining methods.
3. Mineral Reserves are estimated at a cut-off grade which varies between 0.31 and 0.61 g/t Au depending on material type and pit.
4. Mineral Reserves are estimated using an average long-term gold price of US\$1,200/oz.
5. Average weighted CIL process recovery of 92.1% and heap leach process recovery of 67.0%.
6. Mineral Reserves are reported on a 100% basis.
7. Mineral Reserves include material from EMZ and Falagountou pits.
8. Numbers may not add due to rounding.

## MINING AND PROCESSING

Remaining open pit mining includes approximately 261 Mt of waste and 107 Mt of ore over a 7-year-period of production mining. HL ore that is mined during this period is stockpiled until the CIL ore is exhausted and the HL facility is constructed. The volume of waste will decrease if in-pit inferred resources can be upgraded to indicated resources for either CIL or HL extraction through infill drilling. The mining rate was reduced from 70 to 57 Mtpa in the FS mainly due to the postponement of the HL operation and a redesign of the phase 6 mining push back. The average mined grade is 1.05 g/t Au and the LOM stripping ratio is 2.42:1.

The FS has confirmed the positive benefit of two extra mining phases to the existing Essakane main zone (EMZ) open pit mining operation with the addition of a heap leaching operation and a modest increase of CIL plant throughput to 11.7 Mtpa.

The heap leaching operation would be executed following the end of the existing CIL process plant operations. Use of the existing primary (gyratory) and secondary (cone) crushing circuit at the end of CIL plant reduce capital intensity of HL scenario with an optimized annual production rate of 8.5 Mtpa. The HL development scenario envisages the installation of tertiary crushing using an HPGR unit, material handling conveyors, and a carbon in column (CIC) adsorption plant. Loaded carbon would be transported to the existing plant facilities for stripping and refining where no infrastructure upgrade would be required.

Additional major infrastructure included in the FS are the leach pads, solution distribution and collection

systems, and solution ponds. The existing camp capacity and power generation exceed the capacity required during HL operations and thus a reduction in manpower and general and administration costs will be realized during HL operations versus current CIL operations. Mining operations from the pit will cease at end of CIL life leading to a reduction in mine equipment and staff to support the subsequent HL operations.

The average processed grade is 1.24 g/t for CIL and 0.40 g/t for HL.

## FUTURE WORK

The FS recommends to initiate the detailed engineering for the mill upgrade to 11.7 Mtpa. The project schedule is estimated to 12 months and is expected to be commissioned in Q3 2020. For the HL, study assumptions will be validated on a yearly basis during the LOM process. Some additional test work will also be initiated to evaluate low grade transition material within the CIL reserve that may be amenable to HL with the addition of agglomeration.

As construction of the HL facility is not required until 2025, the business retains the option of re-evaluating the economics of that construction project at that point in time. Given that the CIL process generates higher recovery and doesn't require additional capital investment, it is recognized that there may be a case where the existing stockpiled ore planned for the HL process generate superior economics by processing through the existing CIL circuit, especially in scenarios with higher gold prices than have been used for the current study.

## QUALIFIED PERSONS

The 2019 Essakane Heap leach FS was prepared by IAMGOLD and incorporates the work of Kappes, Cassiday & associates and SRK Consulting (QPs) (as defined under National Instrument 43-101). KCA's and SRK Qualified Persons are independent of IAMGOLD and have reviewed and approved this news release. IAMGOLD Qualified Persons are not independent of IAMGOLD and have reviewed and approved this news release. The affiliation and areas of responsibility for each Qualified Person involved in preparing the 2019 Essakane Heap leach FS, upon which the technical report will be based, are:

### IAMGOLD QPs

- V. Blanchet, P.Eng., data verification, mineral resource estimate, adjacent properties
- F. Sawadogo, MAIG, property description, historical setting, geological setting, deposit types, exploration, drilling, and sample preparation, analyses and security
- P. Chabot, P.Eng., mining method and mineral reserve estimate
- L-B Denoncourt P. Eng., infrastructure, capital cost estimate
- D. Isabel, P. Eng., environmental studies, permitting, and social or community impacts
- S. Rivard, P. Eng., recovery method - CIL, mineral processing and metallurgical testing - CIL

### KCA QPs

- T. Manning, P.E., mineral processing and metallurgical testing - HL

### SRK QPs

- B. Burnley, P.E., heap leach pad design and stability

## Forward-Looking Information

All Mineral Reserve and Mineral Resources estimates reported by the Company were estimated in accordance with the Canadian National Instrument 43-101 and the Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards (May 10, 2014). These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.

This document contains "forward-looking information" within the meaning of Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. This information and these statements, referred to herein as "forward-looking statements" are made as of the date of this document. Forward-looking statements relate to future events or future performance and reflect current estimates, predictions, expectations or beliefs regarding future events and include, but are not limited to, statements with respect to:

- (i) the estimated amount and grade of Mineral Resources and Mineral Reserves;
- (ii) the FS representing a viable development option for the Project;
- (iii) estimates of the capital costs of constructing mine facilities and bringing a mine into production, of sustaining capital and the duration of financing payback periods;
- (iv) the estimated amount of future production, both produced and metal recovered; and,
- (v) estimates of operating costs and total costs, net cash flow, net present value and economic returns from an operating mine.

Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives or future events or performance (often, but not always, using words or phrases such as "expects", "anticipates", "plans", "projects", "estimates", "envisages", "assumes", "intends", "strategy", "goals", "objectives" or variations thereof or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved, or the negative of any of these terms and similar expressions) are not statements of historical fact and may be forward-looking statements.

All forward-looking statements are based on IAMGOLD's or its consultants' current beliefs as well as various assumptions made by them and information currently available to them. The most significant assumptions are set forth above, but generally these assumptions include:

- (i) the presence of and continuity of metals at the Essakane mine at estimated grades;
- (ii) the geotechnical and metallurgical characteristics of rock conforming to sampled results;
- (iii) the capacities and durability of various machinery and equipment;
- (iv) the availability of personnel, machinery and equipment at estimated prices and within the estimated delivery times;
- (v) currency exchange rates;
- (vi) metals sales prices and exchange rate assumed;
- (vii) appropriate discount rates applied to the cash flows in the economic analysis;
- (viii) tax rates and royalty rates applicable to the proposed mining operation;
- (ix) the availability of acceptable financing under assumed structure and costs;
- (x) anticipated mining losses and dilution;
- (xi) reasonable contingency requirements;

(xii) success in realizing proposed operations;

(xiii) receipt of permits and other regulatory approvals on acceptable terms; and

(xiv) the fulfillment of environmental assessment commitments and arrangements with local communities.

Although management considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect. Many forward-looking statements are made assuming the correctness of other forward looking statements, such as statements of net present value and internal rates of return, which are based on most of the other forward-looking statements and assumptions herein. The cost information is also prepared using current values, but the time for incurring the costs will be in the future and it is assumed costs will remain stable over the relevant period.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that estimates, forecasts, projections and other forward-looking statements will not be achieved or that assumptions do not reflect future experience. We caution readers not to place undue reliance on these forward-looking statements as a number of important factors could cause the actual outcomes to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates assumptions and intentions expressed in such forward-looking statements. These risk factors may be generally stated as the risk that the assumptions and estimates expressed above do not occur as forecast, but specifically include, without limitation: risks relating to variations in the mineral content within the material identified as Mineral Resources and Mineral Reserves from that predicted; variations in rates of recovery and extraction; the geotechnical characteristics of the rock mined or through which infrastructure is built differing from that predicted, the quantity of water that will need to be diverted or treated during mining operations being different from what is expected to be encountered during mining operations or post closure, or the rate of flow of the water being different; developments in world metals markets; risks relating to fluctuations in the Canadian dollar relative to the US dollar; increases in the estimated capital and operating costs or unanticipated costs; difficulties attracting the necessary work force; increases in financing costs or adverse changes to the terms of available financing, if any; tax rates or royalties being greater than assumed; changes in development or mining plans due to changes in logistical, technical or other factors; changes in project parameters as plans continue to be refined; risks relating to receipt of regulatory approvals; delays in stakeholder negotiations; changes in regulations applying to the development, operation, and closure of mining operations from what currently exists; the effects of competition in the markets in which IAMGOLD operates; operational and infrastructure risks and the additional risks described in IAMGOLD's Annual Information Form filed with SEDAR in Canada (available at [www.sedar.com](http://www.sedar.com)) for the year ended December 31, 2017 and in the Corporation's Annual Report Form 40-F filed with the U.S. Securities and Exchange Commission on EDGAR (available at <https://www.sec.gov/edgar/searchedgar/companysearch.html>). IAMGOLD cautions that the foregoing list of factors that may affect future results is not exhaustive.

When relying on our forward-looking statements to make decisions with respect to IAMGOLD, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. IAMGOLD does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by IAMGOLD or on our behalf, except as required by law.

#### About IAMGOLD

IAMGOLD ([www.iamgold.com](http://www.iamgold.com)) is a mid-tier mining company with four operating gold mines on three continents. A solid base of strategic assets in North and South America and West Africa is complemented by development and exploration projects and continued assessment of accretive acquisition opportunities. IAMGOLD is in a strong financial position with extensive management and operational expertise.

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