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# FIRST MINING GOLD REPORTS POTENTIAL FOR SIGNIFICANT INCREASE IN RECOVERIES AT SPRINGPOLE GOLD PROJECT

February 19, 2019

VANCOUVER, BC, CANADA – First Mining Gold Corp. ("First Mining" or the "Company") (TSX: FF) (OTCQX: FFMGF) (FRANKFURT: FMG) is pleased to announce positive interim metallurgical test results for its Springpole Gold Project ("Springpole") in northwestern Ontario, Canada, that indicate the potential for significant increases in the ultimate recovery of both gold and silver from the project.

With oversight provided by M3 Engineering & Technology Corp. ("M3") in Tucson, Arizona, flotation test work completed by ALS Metallurgy ("ALS") in Kamloops, British Columbia achieved total recoveries of 90.6% for gold and 95.1% for silver through flotation followed by separate cyanide leaching of both concentrate and flotation tails.

This represents a 13.2% increase in gold recovery and an 11.9% increase in silver recovery over the Whole-Ore Carbon-in-Pulp ("Whole-Ore CIP") flowsheet presented in the independent Preliminary Economic Assessment ("PEA") technical report for Springpole<sup>1</sup> that was prepared by SRK Consulting (Canada) Inc. in accordance with National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101"), which demonstrated recovery levels of 80% for gold and 85% for silver.<sup>2</sup>

Dan Wilton, First Mining's Chief Executive Officer, said, "The increased recoveries demonstrated by these test results are very exciting and could add significantly to the robustness of Springpole, while at the same time improving our ability to engineer the project to minimize its environmental impact. Springpole is one of the largest undeveloped gold projects in Ontario and this potential increase in recoveries points to a strong potential for increased annual production, further moving Springpole into "Tier I" project status. First Mining will continue to advance this critical

<sup>&</sup>lt;sup>1</sup> The technical report for the Springpole PEA, which is titled "Preliminary Economic Assessment Update for the Springpole Gold Project, Ontario, Canada" and is dated October 16, 2017, can be found under First Mining's SEDAR profile at www.sedar.com, and on First Mining's website at <u>www.firstmininggold.com</u>.

<sup>&</sup>lt;sup>2</sup> See cautionary note on the next page of this news release.

metallurgical program through further optimization and trade-off studies as we move Springpole through the Pre-Feasibility process."

These interim results were achieved in flotation test #17 of the ALS program which first ground the original ore feed to a p80 of 145 microns (" $\mu$ m"). This feed produced a rougher flotation concentrate at a mass pull of 23.9%, which was then cleaned to produce a cleaner concentrate at a mass pull of 12.4% (see Table 1 below). This cleaner concentrate was reground to a size of 17  $\mu$ m (P<sub>80</sub>) prior to cyanide leaching. The cleaner flotation tails were combined with the rougher tails for cyanide leaching.

One of the key discoveries of this metallurgical testing program was the consistently high recoveries achieved by leaching the flotation tails, even at relatively coarse grind sizes. Leaching the floatation tails achieved greater than 88% recoveries across all grind sizes tested. ALS also completed other tests in which the flotation concentrates were reground to  $23\mu m$  and  $24\mu m$  (P<sub>80</sub>), and these tests demonstrated total gold recoveries of 89.4% and 88.7%, respectively. A detailed list of the test results are detailed in Table 2 below.

This proposed flowsheet by M3 for Springpole is similar to other flowsheets that M3 has developed, where the concentrate is re-introduced into the flotation tails after fine grinding, whereas at Springpole, First Mining will continue to investigate maintaining a separate leach circuit and tailings stream for the higher-sulfur flotation concentrate. For Springpole, First Mining will investigate potential environmental advantages to maintaining a separate leach circuit and tails management facility for the concentrate from the tails products.

A flotation-centered flowsheet offers significant advantages over the Whole-ore CIP flowsheet including generation of a much smaller volume of material requiring ultrafine grinding (< 20  $\mu$ m) for improved liberation, and sequestering up to 85% of total sulphides in a separate, much smaller tailings management facility.

Additional test work is nearing completion, including investigations into the possibility of preflotation removal of silica gangue prior to flotation. In particular, micas constitute over 30% of the whole ore feed and QEMscan analysis indicates that there is little association of gold or goldbearing minerals with the micas. Removal of a significant proportion of micas, if successful, may allow for downsizing of the flotation and tails leaching plants as well as cost savings for reagents used in both the flotation and leaching processes.

The next stage of metallurgical testing will involve further investigation into flotation, fine and ultrafine grinding alternatives, and potential pre-flotation removal of silicate gangue and will eventually lead to locked cycle metallurgical testing to confirm the final processing flowsheet. This final flowsheet will be selected after completing trade-off studies on capital and operating costs prior to commencing a Pre-Feasibility Study for Springpole. Given the timeframe necessary to complete such a study, First Mining intends to complete an updated Preliminary Economic Assessment for Springpole to reflect a flotation and fine grinding-based flowsheet in order to assess the economic impact on the project of significantly higher recoveries and commensurate changes in capital and operating costs. The 2017 Springpole PEA generated a post-tax NPV<sub>5%</sub> of US\$792 million, and a post-tax IRR of 26.2%, using 80% gold recoveries and 85% silver recoveries.

Readers are cautioned that the PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Actual results may vary, perhaps materially. The projections, forecasts and estimates presented in the PEA constitute forward-looking statements and readers are urged not to place undue reliance on such forward-looking statements. Additional cautionary and forward-looking statement information is detailed at the end of this news release.

Summary tables presenting the ALS results are presented below:

### Table 1: Flotation Results

Test Number	Product	Assay			Recovery			Mass Pull
		S (%)	Ag (g/t)	Au (g/t)	S (%)	Ag (g/t)	Au (g/t)	(%)
KM5724-001R	Feed	2.80	4.38	1.08	100.00	100.00	100.00	
	Rougher Concentrate	11.60	16.90	3.51	93.20	84.20	74.40	22.90
	Rougher Tails	0.30	0.90	0.36	6.80	15.80	25.60	
KM5724-011CL	Feed	2.96	6.00	1.08	100.00	100.00	100.00	
	Cleaner Concentrate	21.20	32.00	5.89	81.10	64.80	61.80	11.30
	Rougher Concentrate	11.80	19.00	3.50	84.00	71.80	68.60	21.10
	1 <sup>st</sup> Cleaner Tail	0.87	4.00	0.74	2.90	7.00	6.70	
	Tails	0.60	2.00	0.43	16.00	28.20	31.40	
KM5724-017CL	Feed	2.69	7.00	1.12	100.00	100.00	100.00	
	Cleaner Concentrate	18.60	30.00	6.07	85.60	55.50	66.70	12.40
	Rougher Concentrate	10.00	18.00	3.62	89.00	65.90	77.00	23.90
	1 <sup>st</sup> Cleaner Tail	0.79	6.00	1.00	3.40	10.40	10.30	11.50
	Tails	0.39	3.00	0.34	11.00	34.10	23.00	76.10
KM5724-018R	Feed	2.94	7.00	1.37	100.00	100.00	100.00	
	Rougher Concentrate	16.50	25.00	5.79	70.60	47.30	62.50	12.60
	Rougher Tails	0.99	4.00	0.50	29.40	52.70	37.50	87.40

## Table 2: Cyanide Leaching Results

Test Number & Name	Sample Identification	Leach Time	% Recovery		Overall Recovery	
		(hrs)	Au (%)	Ag (%)	Au (%)	Ag (%)
02 – Whole Ore Leach	Master Composite @ 71µm	2	51.7	74.3		
		6	73.1	84.7		
		24	80.1	88.1		
		48	82.3	89.3		
03 – Test #1 Conc.	Rougher Conc. @ 23µm	2	61.5	71.7		
		6	67.5	82.5		
		24	86.4	87.8		
		48	89.1	89.8		
	Rougher Tails @ 145µm	2	43.6	77.9		
		6	64.1	84.1		
04 – Test #1 Tall		24	81.0	86.2		
		48	90.1	87.4		
Tes		74.4	84.2	89.4	89.4	
	Rougher Conc. @ 120µm	2	48.4	68.5		
00 Test #5 Osna		6	59.7	77.6		
06 – Test #5 Conc.		24	72.5	80.3		
		48	75.6	81.4		
	Rougher Tails @ 145µm	2	62.9	73.9		
07 Toot #5 Toil		6	84.8	81.5		
07 – Test #5 Tall		24	90.3	85.9		
		48	91.6	87.9		
Tes		71.7	83.1	80.1	82.5	
	Rougher Conc. @ 29µm	2	52.0	69.3		
00 Test #9 Cana		6	61.1	80.0		
09 – Test #8 Conc.		24	76.1	85.9		
		48	80.2	88.7		
	Rougher Tails @ 145µm	2	53.4	80.0		
		6	54.2	82.8		
10 – Test #8 Tail		24	63.2	84.9		
		48	88.7	87.8		

Test Number & Name	Sample Identification	Leach Time	% Recovery		Overall Recovery	
		(hrs)	Au (%)	Ag (%)	Au (%)	Ag (%)
Tes		76.5	75.6	82.2	88.5	
	Cleaner Conc. @ 24µm	2	50.7	66.2		
12 Test #11 Cons		6	63.9	83.1		
13 – Test #TT Conc.		24	82.1	89.5		
		48	85.8	91.4		
15 – Test #11 Tail	Combined Rougher and Cleaner Tails @ 145µm & 24µm, respectively	2	65.6	75.3		
		6	69.8	83.1		
		24	87.2	84.9		
		48	91.8	87.9		
Tes		61.8	64.8	88.7	90.2	
	Rougher Conc. @ 26µm	2	53.0	72.4		
14. Test #40.Oses		6	68.4	84.0		
14 – Test #12 Conc.		24	83.4	88.9		
		48	86.3	90.2		
	Rougher Tails @ 189µm	2	62.8	76.0		
16 Toot #10 Toil		6	71.1	83.3		
16 – Test #12 Tall		24	75.8	87.3		
		48	88.0	87.9		
Test		67.9	71.5	86.8	89.5	
19 – Test #17 Conc.	Cleaner Conc. @ 17µm	2	59.5	74.9		
		6	70.5	82.7		
		24	85.7	90.7		
		48	91.2	93.9		
	Combined Rougher and Cleaner Tails @ 145µm & 17µm, respectively	2	58.8	82.3		
20 – Test #17 Tail		6	73.5	89.7		
		24	84.9	95.2		
		48	89.6	96.6		
Tes		66.7	55.5	90.6	95.1	

## QUALIFIED PERSON

Dr. Chris Osterman, P.Geo., Chief Operating Officer of First Mining, is a "qualified person" as defined by NI 43-101 and he has reviewed and approved the scientific and technical disclosure contained in this news release.

#### ABOUT FIRST MINING GOLD CORP.

First Mining Gold Corp. is an emerging development company with a diversified portfolio of gold projects in North America. Having assembled a large resource base of **seven million ounces of gold** in the **Measured and Indicated categories** and **five million ounces of gold** in the **Inferred category** in mining friendly jurisdictions of eastern Canada, First Mining is now focused on advancing its assets towards production. The Company currently holds a portfolio of 24 mineral assets in Canada, Mexico and the United States.

For further information, please contact Frank Lagiglia, Investor Relations, at 604-639-8824, or visit our website at <u>www.firstmininggold.com</u>.

#### ON BEHALF OF FIRST MINING GOLD CORP.

"Daniel W. Wilton"

Daniel W. Wilton Chief Executive Officer

#### **Cautionary Note Regarding Forward-Looking Statements**

This news release includes certain "forward-looking information" and "forward-looking statements" (collectively "forward-looking statements") within the meaning of applicable Canadian and United States securities legislation including the United States Private Securities Litigation Reform Act of 1995. These forward-looking statements are made as of the date of this news release. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "plans", "projects", "intends", "estimates", "envisages", "potential", "possible", "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.

Forward-looking statements in this news release 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 potential to significantly increase the recoveries of gold and silver from Springpole and the potential for an increase in annual production from the project as a result; (ii) the PEA representing a viable development option for Springpole; (iii) estimates of net cash flow, net present value and economic returns from an operating mine constructed at Springpole; (iv) investigation of opportunities to improve the economics of the proposed mine and the success of any such opportunities; and (v); and the potential for significant downsizing of the flotation and tails leaching plants and costs savings associated with the reagents used if First Mining is able to remove a significant portion of the micas from the whole ore feed. All forward-looking statements are based on First Mining'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 Springpole at estimated grades; (ii) the geotechnical and metallurgical characteristics of rock conforming to sampled results, including the quantities of water and the quality of the water that must be diverted or treated during mining operations; (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) metallurgical performance; (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 the Company's 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: (i) risks relating to variations in the mineral content within the material identified as mineral resources from that predicted; (ii) general risks related to exploration drilling programs; (iii) developments in world metals markets; (iv) risks relating to fluctuations in the Canadian dollar relative to the US dollar; (v) management's discretion to refocus the Company's exploration efforts and/or alter the Company's short and long term business plans; and (vi) the additional risks described in the Company's Annual Information Form for the year ended December 31, 2017 filed with the Canadian securities regulatory authorities under the Company's SEDAR profile at www.sedar.com, and in the Company's Annual Report on Form 40-F filed with the SEC on EDGAR.

First Mining 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 First Mining, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. First Mining does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by the Company or on our behalf, except as required by law.

#### **Cautionary Note to United States Investors**

This news release has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all resource and reserve estimates included in this news release have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy, and Petroleum 2014 Definition Standards on Mineral Resources and Mineral Reserves. NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information Canadian standards, including NI 43-101, differ significantly from the concerning mineral projects. requirements of the United States Securities and Exchange Commission ("SEC"), and mineral resource and reserve information contained herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term "resource" does not equate to the term "reserves". Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC's disclosure standards normally do not permit the inclusion of information concerning "measured mineral resources", "indicated mineral resources" or "inferred mineral resources" or other descriptions of the amount of mineralization in mineral deposits that do not constitute "reserves" by U.S. standards in documents filed with the SEC. Investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. U.S. investors should also understand that "inferred mineral resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an "inferred mineral resource" will ever be upgraded to a higher category. Under Canadian rules, estimated "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Investors are cautioned not to assume that all or any part of an "inferred mineral resource" exists or is economically or legally mineable. Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in-place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of "reserves"

are also not the same as those of the SEC, and reserves reported by the Company in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.