



PRESS RELEASE

SEMAFO

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SEMAFO Announces Positive Feasibility Study and Funding for Natougou

Payback Period of 1.5 Years, 48% IRR After-tax at \$1,100/oz Gold

To Host Conference Call Today at 11:00 am EST

Montreal, Quebec, February 25, 2016 – SEMAFO Inc. (TSX, OMX: SMF) announces the results of a positive feasibility study for its Natougou gold project, located 320 kilometers east of Ouagadougou in Burkina Faso. The Corporation also announces it has entered into a commitment letter with Macquarie Bank Limited to amend its existing credit facility (“Facility”). All amounts are in US dollars unless otherwise stated. All figures are on a 100% ownership basis.

Natougou Feasibility Study Highlights

- During the first three years
 - Average annual production of more than 226,000 ounces
 - Average total cash cost¹ of \$283/oz and all-in sustaining cost² of \$374/oz
 - Average head grade of 5.72 g/t at a gold recovery rate of 93.8%
- Production of some 1.2 million ounces at total cash cost of \$408/oz and a gold recovery rate of 92.9% over a projected mine life (“LOM”) in excess of 7 years
- LOM all-in sustaining cost of \$518/oz including capitalized stripping and sustaining capital expenditures
- Maiden open pit mineral reserves of 9.6 million tonnes at a grade of 4.15 g/t Au for 1,276,000 ounces of contained gold
- Initial capital expenditures: \$219 million, which includes \$42 million in pre-stripping expenditures and an \$18-million contingency
- Project economics (base case at \$1,100/oz):
 - After-tax 5% NPV: \$262 million
 - After-tax IRR: 48%
 - Payback period: 1.5 years
- Targeted construction start-up: year-end 2016
- Expected first gold pour: second half of 2018 with first year of full production in 2019

¹ Total cash cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the mining operation expenses and government royalties per ounce sold.

² All-in sustaining cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the total cash cost, plus sustainable capital expenditures and stripping costs per ounce.

Gold Price Sensitivity Analysis

The Natougou project sensitivity analysis was performed using a \$100 variation from the base case gold price as illustrated in the following table:

	\$1,000 oz gold	Base Case \$1,100 oz gold	\$1,200 oz gold
After-tax 5% NPV (\$M)	\$199	\$262	\$334
After-tax IRR (%)	38	48	58
Payback period (years)	1.7	1.5	1.3

Financing – Commitment Letter with Macquarie

SEMAFO has entered into a commitment letter with Macquarie Bank Limited to amend its Facility. When combined with its cash position (\$167 million as at December 31, 2015) and anticipated cash flow from ongoing operations, the Corporation estimates it has sufficient financial resources to bring Natougou into production.

Amendments to the existing Facility include

- Facility increased from \$90 million to \$120 million
- Incremental \$60 million to be drawn down by June 30, 2017 (\$30 million repayment due March 3, 2016)
- LIBOR + 4.75% per annum
- Quarterly repayments of \$15 million, from first quarter of 2019 to fourth quarter of 2020

Closing of the amended Facility is anticipated on or about March 31, 2016 and drawdown of the incremental \$60 million is subject to conditions precedent customary in a transaction of this nature.

Project Milestones

- Complete permitting by year-end 2016
- Complete detailed engineering in fourth quarter of 2016
- Construction start-up by year-end 2016
- Ongoing exploration with the aim of increasing reserves and resources and enhancing economics as of the fourth year of the mine life

Mineralization

The mineralization at the Natougou deposit is hosted within a flat lying shear zone that has a subtle anticlinal geometry. The host lithology consists of mafic to intermediate volcanic/intrusive stratigraphy. The mineralization is predominately hosted in a silicified shear zone, and a significant quantity of the gold occurs as visible gold. Sulphide minerals comprise pyrrhotite, pyrite, and minor arsenopyrite and chalcopyrite. A significant component of the gold is amenable to gravity recovery. Ninety-nine percent of the mineralization is contained in the fresh rock of the Natougou open pit deposit.

Mineral Reserves and Resources Estimates

The mineral reserves and resources estimates have been generated in accordance with the CIM Definition Standards for National Instrument 43-101 reporting. The resources estimate has been completed by Snowden Mining Industry Consultants and the mineral reserves estimates by AMC Mining Consultants (Canada) Ltd.

SEMAFO's drilling, in conjunction with previous drilling, comprise a drill database of 174 diamond, 625 multi-purpose (RC pre-collar and core tail) and 550 reverse-circulation drill holes totalling 115,250 meters that supported the mineral reserves statement and the remaining mineral resources.

The open pit proven and probable mineral reserves estimate for the Natougou deposit totals 9,567,000 tonnes averaging 4.15 g/t Au for 1,276,000 ounces of contained gold. The mineral reserves were estimated based on a gold price of \$1,100 per ounce and a corresponding cut-off grade of 1.07 g/t.

As at December 31, 2015, total proven and probable reserves for the Natougou deposit were as follows:

Reserves classification	Ore		
	Tonnage	Grade	Contained Gold
	tonnes	Au (g/t)	ounces
Proven	1,583,000	6.46	329,000
Probable	7,984,000	3.69	947,000
Total Proven + Probable	9,567,000	4.15	1,276,000

For further details, see the reserves and resources in Table 1 in the appendix.

Exploration Potential at Natougou

Prior to the acquisition of Orbis Gold Limited in 2015, the Natougou project had seen little near-pit or regional exploration. Following the acquisition, SEMAFO's priority was to conduct in-fill drilling with the view of delivering the feasibility study. Regional and proximal exploration only commenced a few months ago.

Significant upside potential therefore exists within and surrounding the Natougou mineralized system, which remains open in all directions and at depth. The Corporation's overall objective is to expand reserves and resources and to enhance economics of the project from year 4 onwards. In the short term, its aim is to expand resources at depth within the footwall zone of the Boungou Shear Zone in addition to the sector west of the deposit.

Following completion of an airborne geophysical survey in 2015 within the framework of its regional program, SEMAFO's team is continuing to explore areas within trucking distance of the Natougou deposit. An initial budget of \$6 million has been assigned to the 2016 exploration program, which will consist of 20,000 meters of reverse-circulation, 60,000 meters of auger and 6,000 meters of core drilling. The auger campaign is principally planned for the regional drill programs. Results are expected during the second quarter of 2016.

Mining Operations, Processing and Metallurgy

The Natougou deposit is projected to be mined utilizing contract-operated conventional open pit methods. Approximately 139 million tonnes of material will be mined from the open pit during the more than seven-year projected LOM. This will deliver 9.6 million tonnes of ore to the milling facility with an average head-grade of 4.15 g/t Au and 130 million tonnes of waste material (13.6:1 stripping ratio). Process grades for the initial three

years average 5.72 g/t Au for an average annual production of more than 226,000 ounces of gold at low total cash and all-in-sustaining cost (see table below). The majority of the material from the deposit will be fresh rock, which will be drilled and blasted prior to loading.

Processing and Metallurgy

The Natougou process plant is designed to process 4,000 tonnes per day or 1.34 million tonnes of ore per year. The process plant will be based on a conventional crushing and grinding circuit, with the crushing circuit composed of a primary crusher and a coarse ore storage bin. Crushed ore will be conveyed to the grinding circuit using a SAG mill in closed circuit with a pebble crusher and a tower mill. The target grind is planned at 63 µm in order to achieve optimal gold recovery. A gravity circuit will be incorporated in the grinding circuit as about 30-50% of the gold is recoverable by gravity. The tailings storage facility located 1.5 kilometers east of the process plant will be fully lined with high-density polyethylene (HDPE). Recycled water will be optimised throughout the process to minimise the addition of fresh water to the process. LOM head grades for the process plant are expected to average 4.15 g/t with a gold recovery of 92.9%. The main reagents used in the plant are hydrated lime, cyanide, lead nitrate and oxygen. A power plant with an installed capacity of 15.4 MW is envisaged using HFO/LFO generators. The milling facility will require some 6.4 MW, and the SAG/tower mill/crusher grinding circuit approximately 4.9 MW.

Mining and Processing

The first gold pour from Natougou is expected to occur in the second half of 2018. Information on the first three years of production is provided below, and the entire LOM mine plan is presented in Table 2 in the appendix.

Production, Years 1- 3

	Year 1	Year 2	Year 3
MINE SCHEDULE			
Ore mined (t)	1,714,444	1,712,439	2,120,648
Grade (g/t)	5.01	4.55	4.68
Waste mined (t)	17,020,156	12,508,621	8,614,138
Capitalized stripping activity (t)	3,087,493	7,262,607	10,134,443
Operational stripping ratio	9.9	7.3	4.1
Total stripping ratio	11.7	11.5	8.8
PROCESSING SCHEDULE			
Ore processed	1,256,010	1,343,200	1,343,200
Head grade (g/t)	5.93	5.59	5.65
Recovery (%)	93.9%	93.7%	93.7%
Gold – recovered (oz)	224,918	226,100	228,502
Total cash cost /oz	319	304	227
All-in sustaining cost /oz	380	406	337

Project Operating Costs

The table below details the LOM cash operating cost per tonne processed at Natougou, which is based on the LOM operational stripping ratio of 7.1:1 and excludes the capitalized stripping accounted for in the all-in sustaining cost.

	\$ per tonne milled
Mining (\$/t)	\$20.28
Processing (\$/t)	\$19.51
G&A (\$/t)	\$4.94
Operating cost (\$/t)	\$44.73

Project Capital Expenditures

The initial estimated cost to bring the Natougou deposit into production is \$219 million, inclusive of pre-stripping and contingency costs, as summarized below.

Initial Capital Expenditures	In millions of \$
Indirect construction	13.6
Processing plant	42.3
Reagents and plant services	13.7
Infrastructure	41.8
Owner costs	15.8
EPCM costs	15.9
Resettlement action plan	8.0
Initial supplies inventory	7.2
Plant & infrastructures subtotal	158.3
Pre-stripping	42.4
Contingency	18.7
Grand Total	219.4

Initial Capital Expenditures Breakdown per Year

In millions of \$	2016	2017	2018
Initial capital expenditures	10.0	46.0	163.4

Environmental and Social Studies, Permitting and Community Relations

The permitting process for the Natougou project continues to advance with positive support of the local communities. An environmental study impact assessment and resettlement action plan were carried out for the project, both of which will be filed with the government of Burkina Faso in the second quarter of 2016.

Under the resettlement action plan, 165 concessions involving 900 inhabitants will be relocated and compensation will be paid for 813 hectares of farmland at total cost of \$8 million.

The Corporation is committed to fostering an open dialogue with communities surrounding our deposits as part of our commitment to sustainable mining. Following a series of visits in 2015, the SEMAFO Foundation has already enhanced access to fresh drinking water and improved sanitary conditions for the Natougou communities. The Foundation's priority for the area involves reinforcement of its educational capacity through construction and support of schools and the launch and equipping of agricultural projects with which to generate community revenue.

Assumptions

- Gold price of \$1,100 per ounce
- Heavy fuel oil (HFO): \$0.69 per liter
- Light fuel oil (LFO): \$1.08 per liter
- Exchange rate: \$0.72 US dollars to the Canadian dollar
- Exchange rate: \$1.09 US dollars to the EURO
- NPV calculated using a discount rate of 5%
- Based on the 2015 Burkina Faso mining code

Qualified Persons

The complete NI 43-101 Technical Report pertaining to the feasibility study will be filed within 45 days and will be available on SEMAFO's website and on www.sedar.com.

The feasibility study was carried out by the following companies and independent Qualified Persons:

Qualified Person	Company	Scope of Responsibility
Neil Lincoln, P. Eng.	Lycopodium Minerals Canada Ltd.	Study Lead, Infrastructure, Capital and Operating Cost Estimates and Financial Analysis
Marius Phillips, MAusIMM (CP)	Lycopodium Minerals Canada Ltd.	Metallurgy and Process Plant
Jean-Sébastien Houle, P. Eng.	WSP Canada	Environment
John Graindorge, B.Sc, MAusI MM (CP)	Snowden Mining Industry	Geology and Mineral Resources
Glen Williamson, BE.	AMC Mining Consultants (Canada) Ltd.	Mining, Mine Planning and Mineral Reserves
Timothy Rowles, CP AusIMM	Knight Piésold Consulting	Geotechnical, Tailings Management and Design and Hydrology

The technical information contained in this news release has been reviewed and approved by SEMAFO's technical group comprising Patrick Moryoussef, P. Eng., Vice-President, Mining Operations, Michel Crevier, P. Geo, MScA, Vice-President, Exploration and Mine Geology, and Sylvain Duchesne, P. Eng., Vice-President, Construction and Engineering, all of whom are Qualified Persons as defined under NI 43-101.

Feasibility Study Conference Call

A conference call will be held today, Thursday, February 25, 2016 at 11:00 EST to discuss the results. The webcast will also be accessible on our website at www.semafo.com until March 17, 2016.

Details

Tel. local & overseas: +1 (647) 788 4922
Tel. North America: 1 (877) 223 4471
Replay number: 1 (800) 585 8367 or +1 (416) 621 4642
Replay pass code: 23379453

About SEMAFO

SEMAFO is a Canadian-based mining company with gold production and exploration activities in West Africa. The Corporation operates the Mana Mine in Burkina Faso, which includes the high-grade satellite deposits of Siou and Fofina, and is developing the advanced gold deposit of Natougou. SEMAFO is committed to evolve in a conscientious manner to become a major player in its geographical area of interest. SEMAFO's strategic focus is to maximize shareholder value by effectively managing its existing assets as well as pursuing organic and strategic growth opportunities.

CAUTION CONCERNING FORWARD-LOOKING STATEMENTS

This press release contains forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and assumptions and accordingly, actual results and future events could differ materially from those expressed or implied in such statements. You are hence cautioned not to place undue reliance on forward-looking statements. Forward-looking statements include words or expressions such as "projected", "initial", "targeted", "expected", "anticipated", "estimates", "potential", "priority", "objective", "aim", "continuing", "planned", "designed to", "in order to", "achieve", "envisaged", "will", "committed", "evolve", "become", "pursuing", "growth", "opportunities" and other similar words or expressions. Factors that could cause future results or events to differ materially from current expectations expressed or implied by the forward-looking statements include the ability to meet the annual average production targets at Natougou within the anticipated total cash costs and all-in sustaining costs, the ability to achieve the projected LOM, the ability to meet the targeted permitting process, initial capital expenditures, construction start-up, expected first gold pour and full year of production, the ability to bring Natougou into production with the combination of our cash position as at December 31, 2015, anticipated cash flow from production and the amended Macquarie Facility, the ability to close the Macquarie amended Facility and to meet the various conditions precedent to drawdown, the ability to expand Natougou resources at depth within the footwall zone of the Boungou Shear Zone, the ability to carry out our 2016 exploration program at Natougou and obtain results within anticipated schedules, the ability to execute an agreement relating to the mining of Natougou, the ability to meet the various objectives in terms of tonnes of ore to the milling facility, head grade and tonnes per day processed at the Natougou plant, LOM overall stripping ratio and operational stripping ratio, the ability to operate a power plant facility with an installed capacity of 15.4 MW using HFO/LFO generators, the ability to generate an after-tax internal rate of return (IRR) of 48% with a payback period of 1.5 years and to generate an after-tax NPV of \$262 million, the accuracy of our assumptions, the ability to execute on our strategic focus, fluctuation in the price of currencies, gold or operating costs, mining industry risks, uncertainty as to calculation of

mineral reserves and resources, delays, political and social stability in Africa (including our ability to maintain or renew licenses and permits) and other risks described in SEMAFO's documents filed with Canadian securities regulatory authorities. You can find further information with respect to these and other risks in SEMAFO's 2014 Annual MD&A, as updated in SEMAFO's 2015 First Quarter MD&A, Second Quarter MD&A and Third Quarter MD&A and other filings made with Canadian securities regulatory authorities and available at www.sedar.com. These documents are also available on our website at www.semafo.com. SEMAFO disclaims any obligation to update or revise these forward-looking statements, except as required by applicable law.

The information in this release is subject to the disclosure requirements of SEMAFO under the *Swedish Securities Market Act* and/or the Swedish *Financial Instruments Trading Act*. This information was publicly communicated on February 25, 2016 at 7:00 a.m., Eastern Standard Time.

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Appendix – Table 1 - Mineral Reserves and Resources

PROPERTY	Natougou ^{1,2,3,4,5}
MINERAL RESERVES	
Proven	
Tonnes	1,583,000
Grade (g/t Au)	6.46
Ounces	329,000
Probable	
Tonnes	7,984,000
Grade (g/t Au)	3.69
Ounces	947,000
TOTAL MINERAL RESERVES	
Tonnes	9,567,000
Grade (g/t Au)	4.15
Ounces	1,276,000
MINERAL RESOURCES (exclusive of reserves)	
Measured	
Tonnes	77,000
Grade (g/t Au)	1.84
Ounces	5,000
Indicated	
Tonnes	2,564,000
Grade (g/t Au)	2.44
Ounces	201,000
TOTAL M&I	
Tonnes	2,641,000
Grade (g/t Au)	2.42
Ounces	206,000
Inferred	
Tonnes	2,683,000
Grade (g/t Au)	3.99
Ounces	345,000

1 Mineral reserves at Tapoa Permit Group (Natougou deposit) were estimated using a gold price of \$1,100 per ounce and a cut-off grade of 1.07 g/t for fresh material and 0.92 g/t for oxide material.

2 Mineral resources at Tapoa Permit Group (Natougou deposit) were estimated using a gold price of \$1,400 per ounce with a cut-off grade of 0.70 g/t for oxide material and 0.80 g/t for fresh material.

3 Rounding of numbers to the nearest thousands of tonnes may present slight differences in the figures representing the ounces contained.

4 All mineral resources reported are exclusive of mineral reserves.

5 As of December 31, 2015.

TABLE 2 - NATOUGOU LOM PLAN AND CASH FLOW

	Total or Average LOM	Construction Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
MINE SCHEDULE										
Waste Mined (t)	67,840,054		17,020,156	12,508,621	8,614,138	4,665,928	11,570,114	11,507,941	1,953,156	
Pre-stripping Activity (t)	18,109,796	18,109,796								
Capitalized Stripping Activity (t)	43,835,775		3,087,493	7,262,607	10,134,443	14,789,050	4,608,056	3,954,126	-	
Ore Mined (t)	9,567,241	72,610	1,714,444	1,712,439	2,120,648	1,053,503	1,262,403	1,178,712	452,482	
Ore Grade (g/t)	4.15	2.48	5.01	4.55	4.68	3.11	3.93	2.90	3.46	
Total Mined (t)	139,352,866	18,182,406	21,822,093	21,483,667	20,869,229	20,508,481	17,440,573	16,640,778	2,405,638	
Operational Stripping Ratio	7.1		9.9	7.3	4.1	4.4	9.2	9.8	4.3	
Total Stripping Ratio	13.6		11.7	11.5	8.8	18.5	12.8	13.1	4.3	
PROCESSING SCHEDULE										
Ore Processed	9,567,241		1,256,010	1,343,200	1,343,200	1,343,200	1,346,880	1,343,200	1,343,200	248,351
Head Grade (g/t)	4.15		5.93	5.59	5.65	3.63	3.92	2.74	2.18	1.53
Recovery (%)	92.9%		93.9%	93.7%	93.7%	92.4%	92.7%	91.2%	90.0%	87.4%
Gold - Recovered (oz)	1,184,955		224,918	226,100	228,502	144,617	157,305	108,030	84,807	10,676
REVENUES (in \$000s)	1,305,389		247,664	248,982	251,624	159,351	173,309	119,105	93,560	11,794
COST OF PRODUCTION	(427,912)		(61,768)	(58,181)	(40,992)	(52,783)	(67,179)	(68,846)	(64,883)	(13,280)
OTHER OPERATING COSTS										
Royalties	(52,215)		(9,907)	(9,959)	(10,065)	(6,374)	(6,932)	(4,764)	(3,742)	(472)
Selling Costs	(3,155)		(585)	(589)	(597)	(390)	(422)	(299)	(242)	(31)
Other	(19,406)		(3,393)	(3,214)	(3,042)	(1,918)	(2,625)	(2,180)	(1,925)	(1,109)
Taxes	(97,411)		-	-	(36,788)	(36,027)	(8,048)	(12,875)	(3,673)	-
Working Capital	-		(6,729)	(7,708)	(16,721)	5,979	1,362	3,398	17,301	3,118
Initial Capex	(212,173)	(212,173)								
Initial Supplies Inventory	-	(7,218)							3,609	3,609
Sustaining Capex	(25,043)		(6,690)	(5,919)	(1,500)	(5,121)	(1,500)	(2,813)	(1,500)	-
Capitalized Stripping Activity	(105,099)		(7,028)	(17,112)	(23,660)	(35,807)	(11,332)	(10,160)	-	-
Deferred Capex	(15,249)		(3,539)	(5,257)	(5,455)	(998)	-	-	-	-
Rehabilitation & Closure Costs	(17,249)		(257)	(257)	(257)	(257)	(257)	(257)	(257)	(15,450)
CASH FLOW	330,477	(219,391)	147,768	140,786	112,547	25,655	76,376	20,309	38,248	(11,821)
Total Cash Cost /oz	408		319	304	227	412	474	684	812	1,284
All-in Sustaining Cost /oz	518		380	406	337	695	555	804	830	1,284