

UNEARTHING THE FUTURE



BMO Capital Markets

26th Global Metals & Mining Conference

Hollywood, Florida | February 26 - March 1, 2017



FORWARD-LOOKING STATEMENTS



- This presentation 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 “growth”, “strategy”, “targeted”, “preliminary”, “final adjustment”, “guidance”, “potential”, “payback period”, “projected”, “Life of Mine or LOM”, “initial”, “schedule”, “milestones”, “objective”, “continue”, “creating”, “next steps”, “evaluate”, “maintaining”, “delivering” 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 execute our growth strategy, the ability to start production at Natougou in H2 2018, the ability to achieve our 2017 production guidance of between 215,000 and 235,000 ounces, total cash cost guidance of between \$585 and \$615 per ounce and all-in sustaining cost guidance of between \$795 and \$835 per ounce, the ability to develop an underground operation at Siou, 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 Natougou’s projected LOM, the ability to meet the initial capital expenditures, expected first gold pour and full year of production at Natougou, the ability to expand Natougou resources at depth within the footwall zone of the Boungou Shear Zone and on the West Flank Zone, the ability to convert the current inferred resources on the West Flank Zone of Natougou deposit and to complete studies to evaluate a potential underground operation, 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 strip ratio and operational strip ratio, 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 at Natougou, the ability to build Natougou on time and on budget, the ability to deliver our production guidance for a tenth consecutive year in 2017, 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 2015 Annual MD&A, as updated in SEMAFO’S 2016 First Quarter MD&A, Second Quarter MD&A, 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.
- We also advise you that the terms “Inferred Resources” and “Indicated Resources”, although recognized and required by the Canadian Securities Administrators, are not recognized by the US Securities and Exchange Commission. There is no certainty that Inferred Resources or Indicated Resources will be economically mineable.
- All mineral resources are exclusive of mineral reserves.
- In this presentation, all amounts are in US dollars unless otherwise indicated.

OUR ASSETS



**STRONG
IN-HOUSE
TECHNICAL
TEAM**

**TRACK RECORD
OF OPERATING
SUCCESS IN
WEST AFRICA**

**HIGH-GRADE
OPEN-PIT
DEPOSITS**

**FINANCIAL
STRENGTH**

**LARGE
EXPLORATION
PACKAGE**

**DISCIPLINED
GROWTH
STRATEGY**

**RESPECTED
CSR
PROGRAMS**



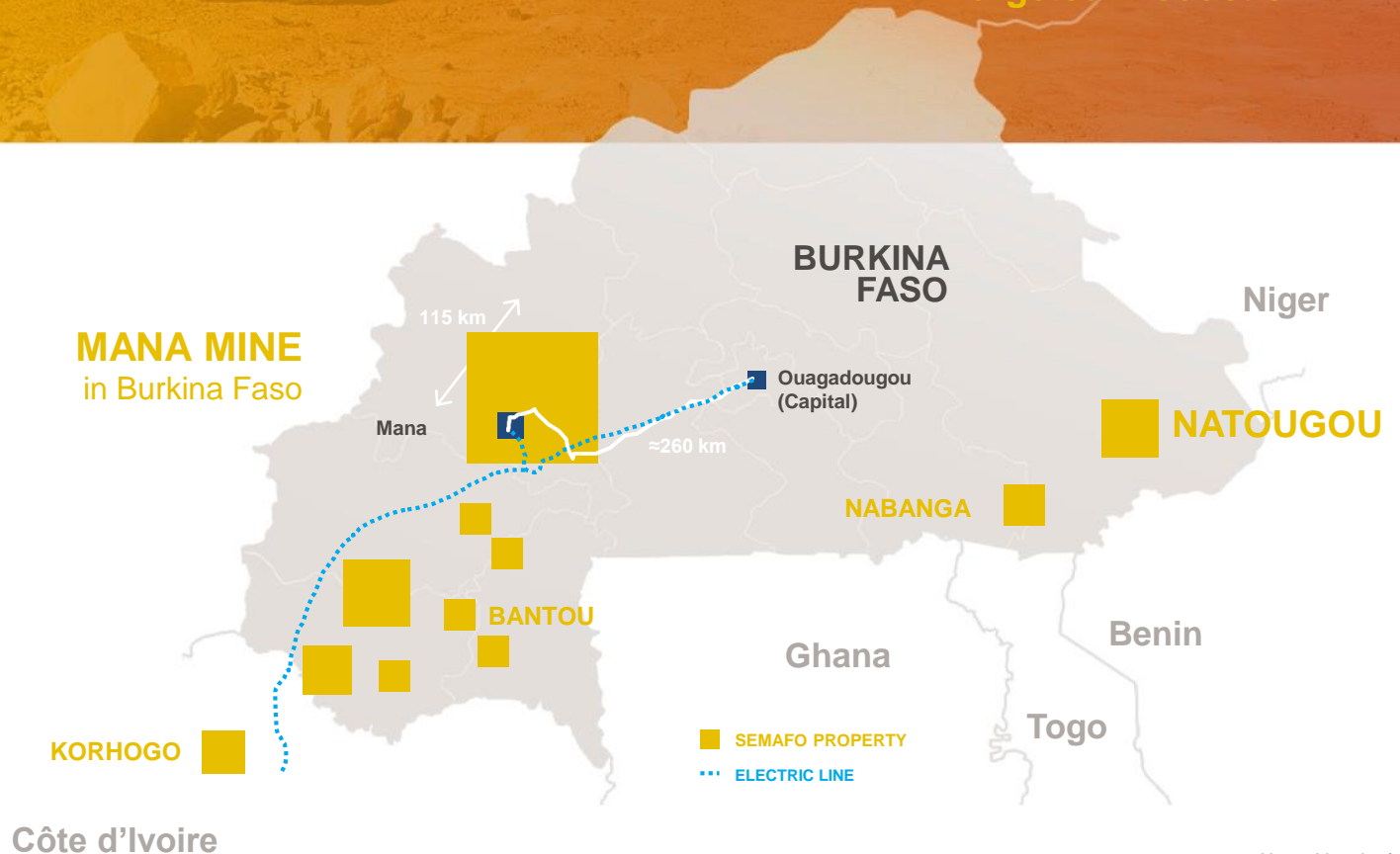
LONG-STANDING PRESENCE IN WEST AFRICA



Commissioned
3 mines in West Africa over
20 YEARS

7,000 km²
in Burkina Faso over three
prospective belts

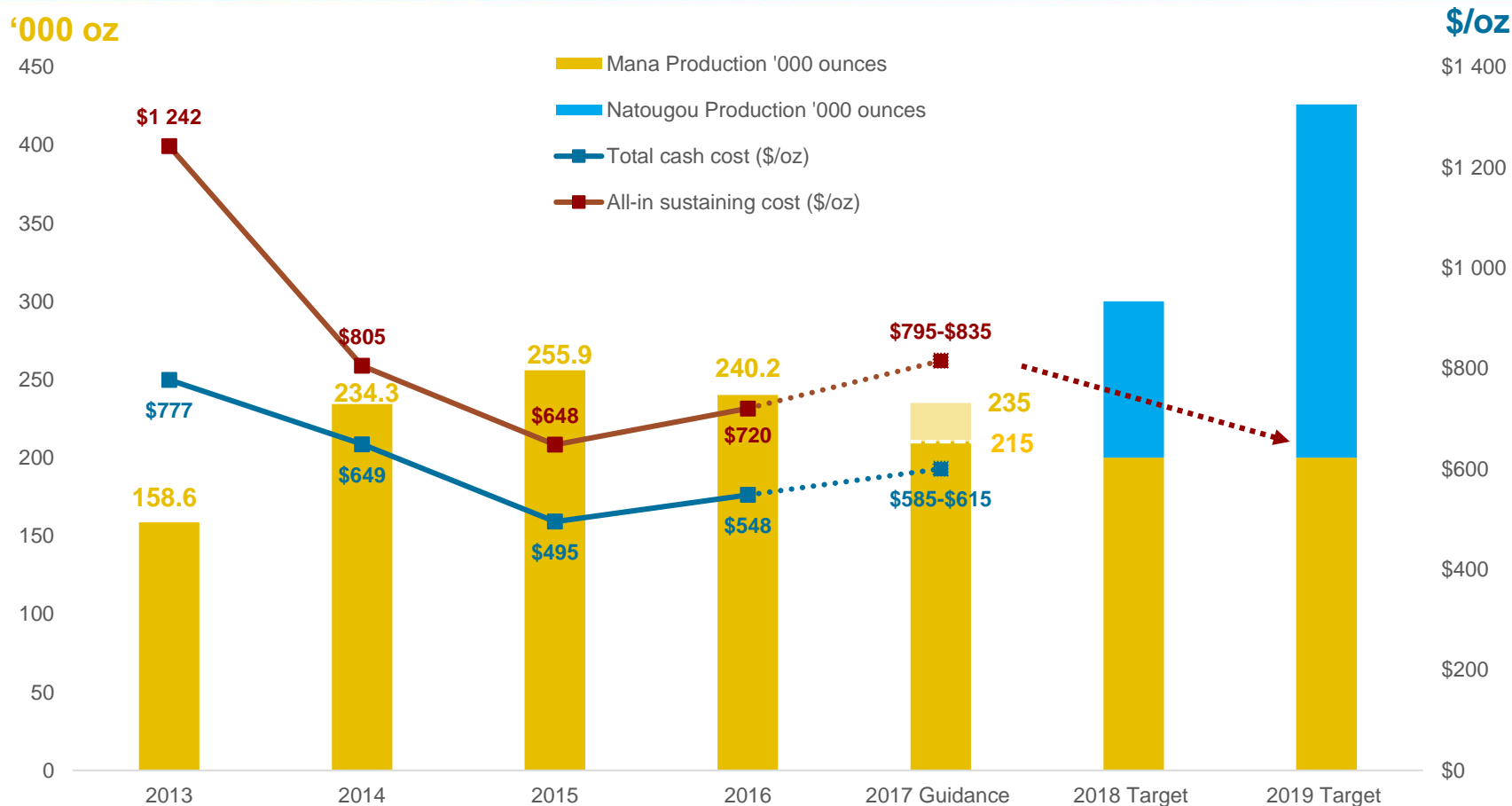
NATOUGOU
Construction under way
Targeted Production H2 2018



STRONG OPERATING AND GROWTH PROFILE



WE MET OUR PRODUCTION GUIDANCE AT MANA FOR THE
NINTH CONSECUTIVE YEAR IN 2016



*2016 numbers are preliminary and are subject to final adjustment.

EXPLORATION AND ACQUISITION SUCCESS



DEPOSITS

FOFINA
FOBIRI

2010

YAHU

2011

SIOU

2012

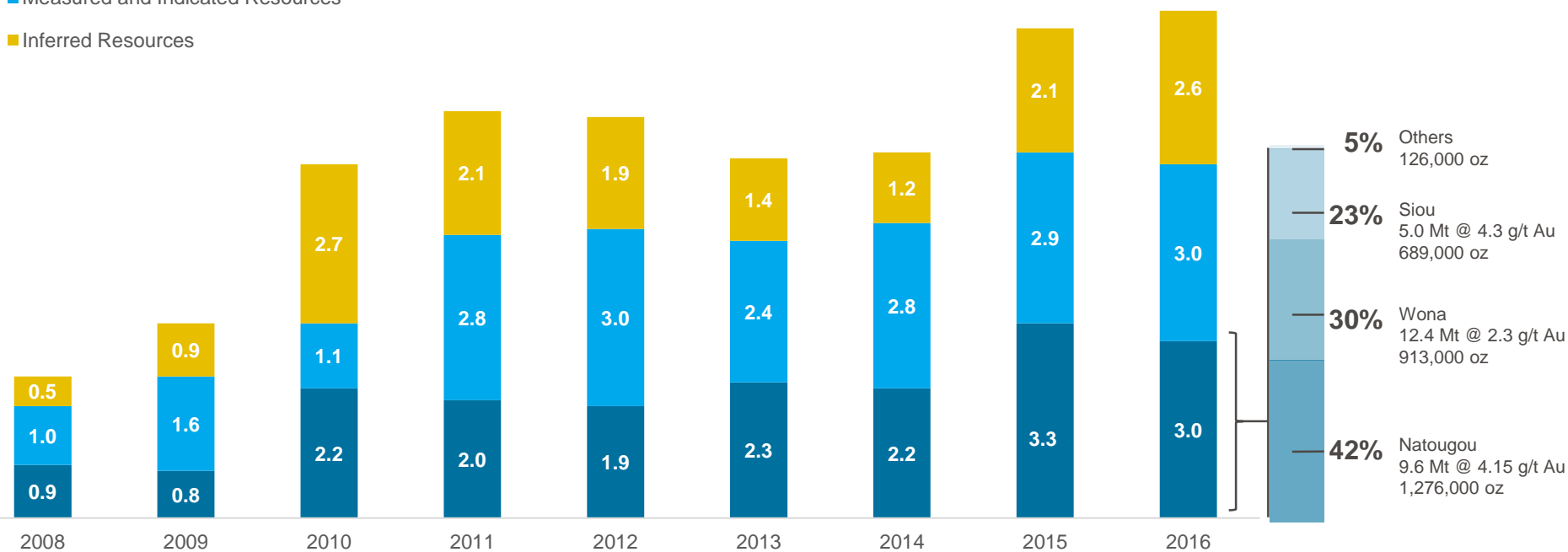
NATOUGOU
NABANGA

2015

WEST FLANK
NATOUGOU

2016

- Proven and Probable Reserves
- Measured and Indicated Resources
- Inferred Resources



- Reserves estimate using a gold price of \$1,100/oz
- Resources estimate using a gold price of \$1,400/oz

STRONG PRODUCTION AND LOW AISC

	GUIDANCE 2017	2016 ³
Ore processed (t)	2,400,000	2,753,300
Head grade (g/t)	3.21	2.88
Recovery (%)	91	94
Total gold ounces produced (K)	215-235	240
Total cash cost/ounce sold ¹ (\$)	585-615	548
All-in sustaining cost/ounce ² (\$)	795-835	720

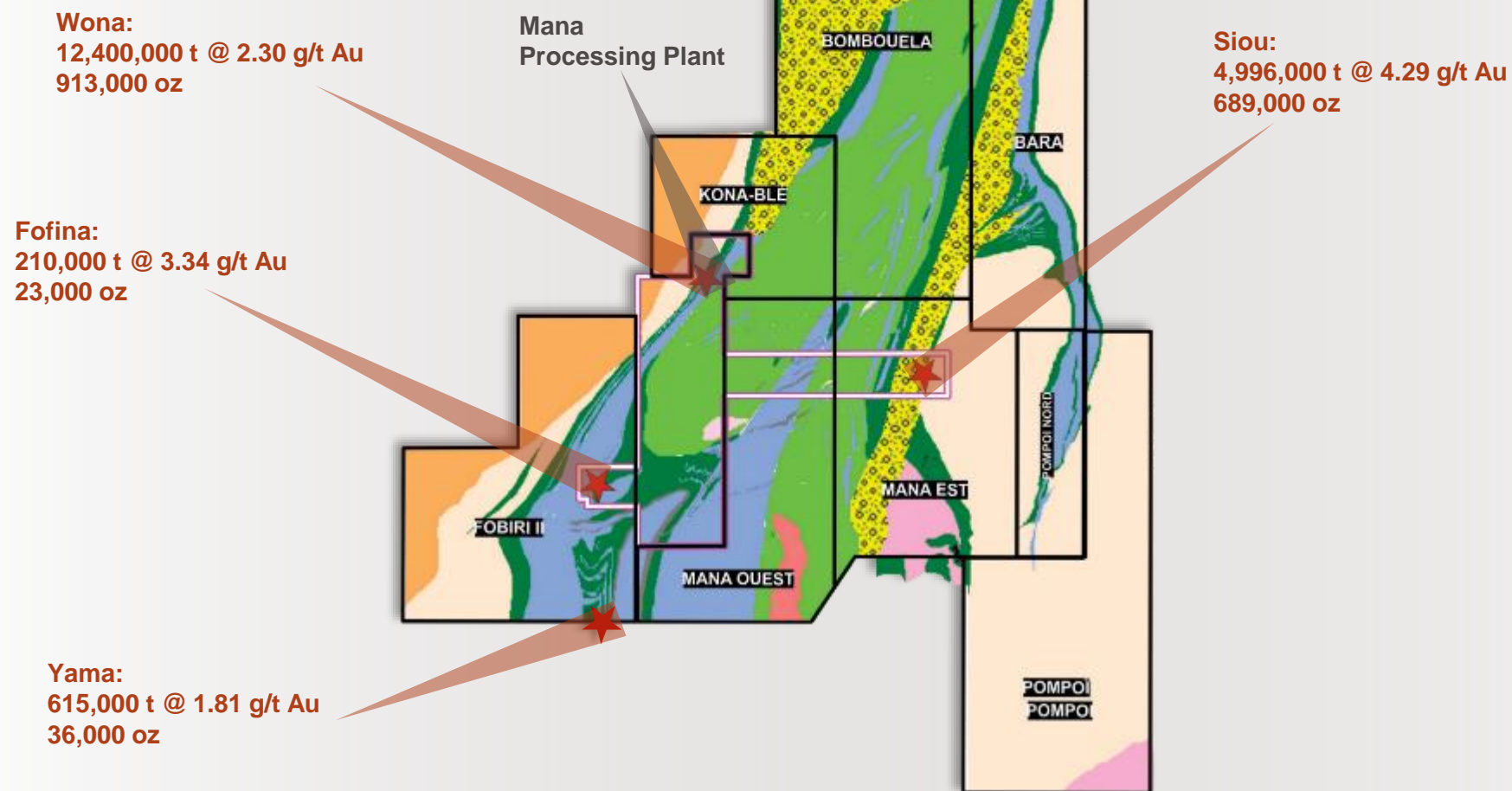
¹Total cash cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the mining operation expenses and government royalties per ounce sold.

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.

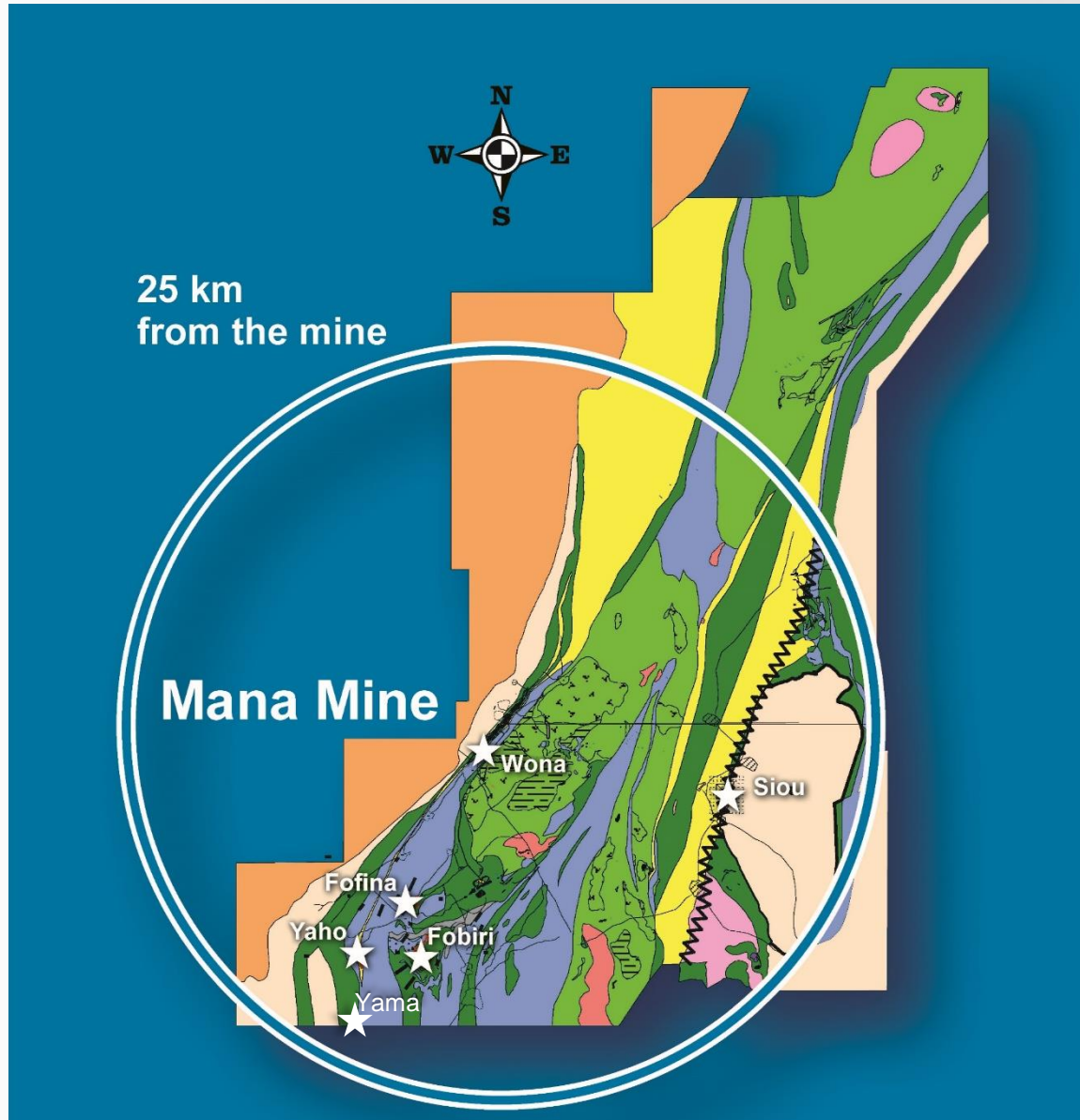
³ 2016 numbers are preliminary and are subject to final adjustment.

MANA'S RESERVES

(AS AT DECEMBER 31, 2016)

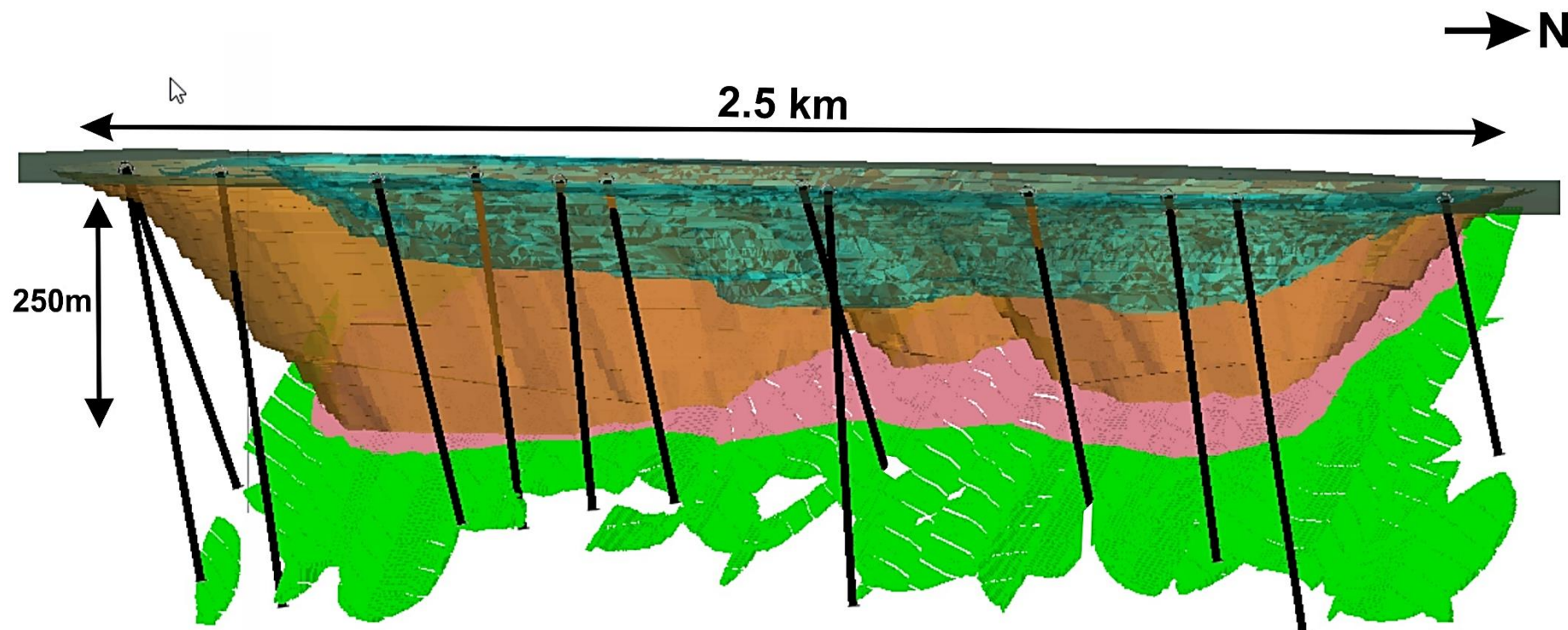


EXPLORATION AT MANA



- 2017 budget of \$5M
 - DDH drilling of 4,500 meters
 - RC drilling of 15,000 meters
 - Auger drilling of 80,000 meters
 - \$1M of which to test underground potential at Siou
- Exploration focused on trucking distance of the mine

SIOU UNDERGROUND POTENTIAL



-  M&I Resources
-  Inferred Resources
-  DDH H1 2017 Program
-  Topo as of December 2016
-  Reserves Pit Design



Concrete pad for clean
water reservoir

NATUGOU: A QUALITY ASSET

Mine site earthworks



Contractor camp

POSITIVE FEASIBILITY STUDY HIGHLIGHTS



- Project economics at \$1,100/oz:
 - After-tax NPV_{5%}: \$262 million
 - After-tax IRR: 48%
 - Payback period: 1.5 years
- During the first three years,
 - Average annual production of more than 226,000 ounces
 - Average total cash cost of \$283/oz and AISC of \$374/oz
 - Average head grade 5.72 g/t at a gold recovery rate of 93.8%
- Production of some 1.2 million ounces over a projected LOM in excess of 7 years
- Projected LOM total cash cost of \$408/oz and all-in sustaining cost of \$518/oz
- 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 gold
- Initial CAPEX: \$219 million

ROBUST PROJECT ECONOMICS



GOLD PRICE SENSITIVITY ANALYSIS

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



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

2016 - \$17M

2017_E - ≈\$100M

2018_E - ≈\$100M

\$219M



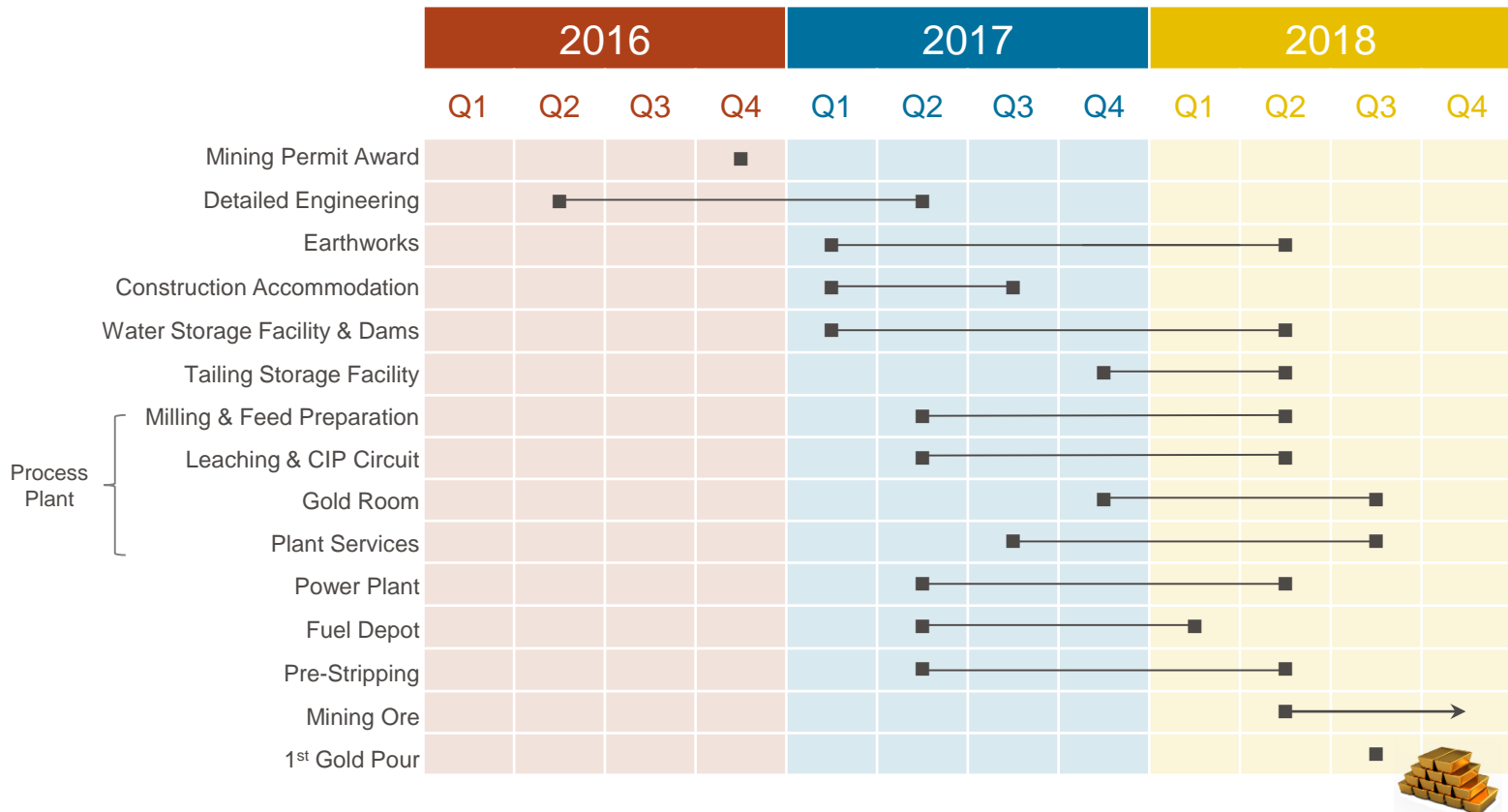
NATOUGOU INITIAL CAPITAL EXPENDITURES



NATOUGOU CONSTRUCTION



SCHEDULE MILESTONES



NATOUGOU - INITIAL PRODUCTION



	YEAR 1	YEAR 2	YEAR 3
Feed ore (t)	1,256,000	1,343,200	1,343,200
Grade (g/t)	5.93	5.59	5.65
Gold recovery (%)	93.9	93.7	93.7
Ounces (oz)	224,918	226,100	228,502
TCC (\$/oz)	319	304	227
AISC (\$/oz)	380	406	337



STRONG FREE CASH FLOW

NATOUGOU: AN UNDEREXPLORED PROPERTY

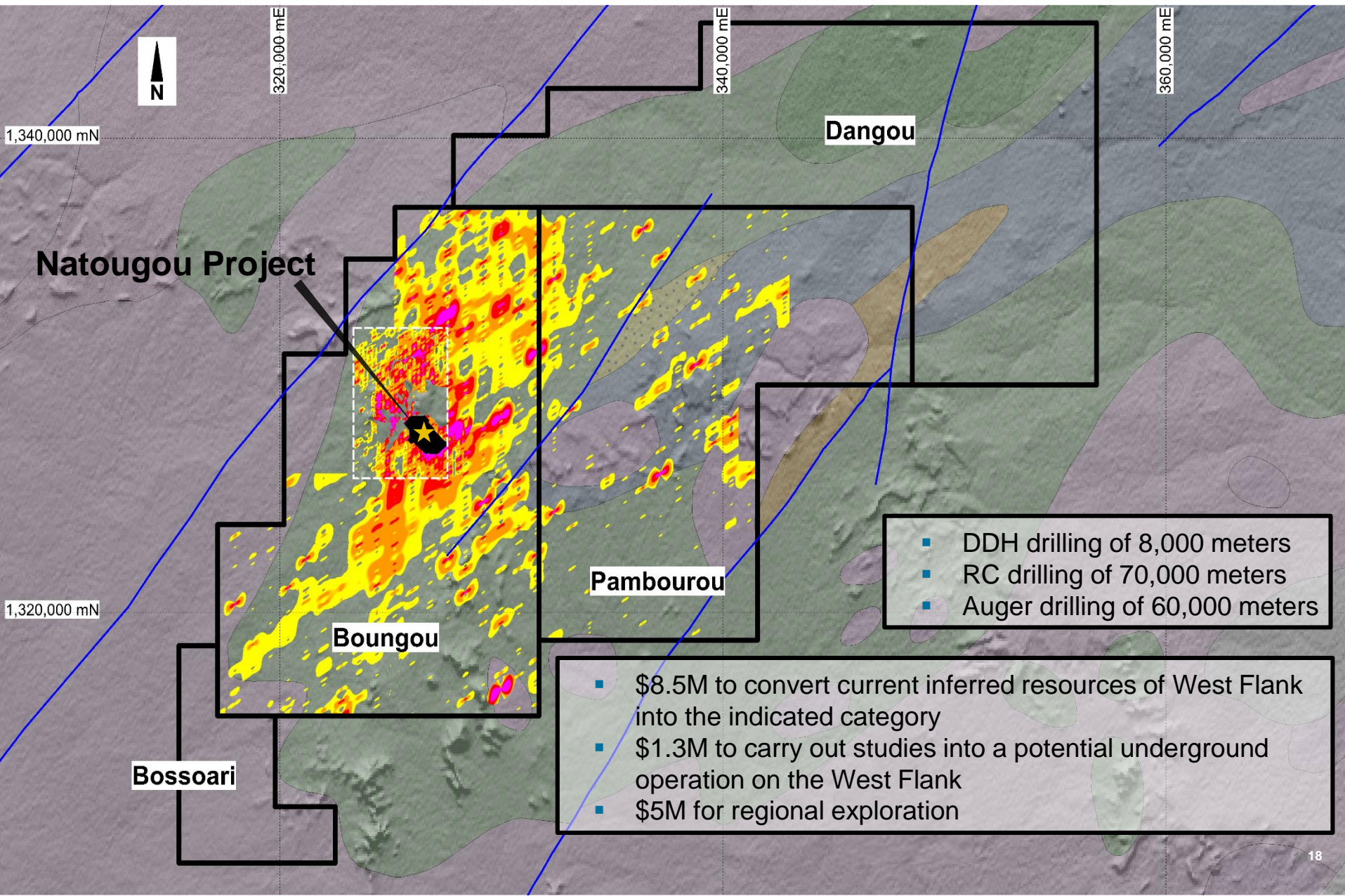


Objective is to expand
reserves and resources
to continue creating value

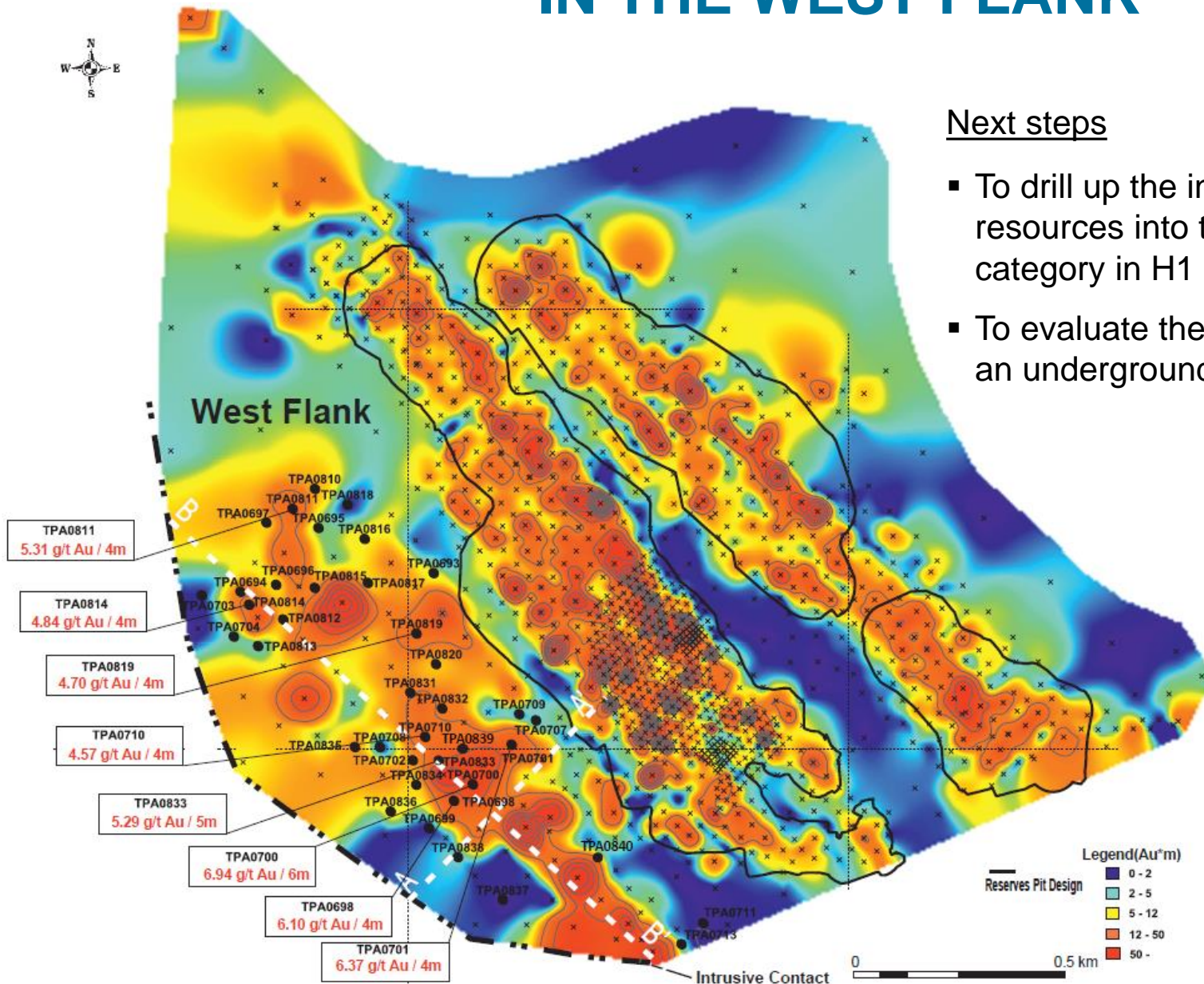
- Prior to its acquisition, Natougou had seen little near-pit or regional exploration
- Focus on step-out and in-fill drilling
- 773 km² of exploration ground
- 2017 budget of \$15M



PROXIMAL AND REGIONAL EXPLORATION PROGRAM: \$15M IN 2017



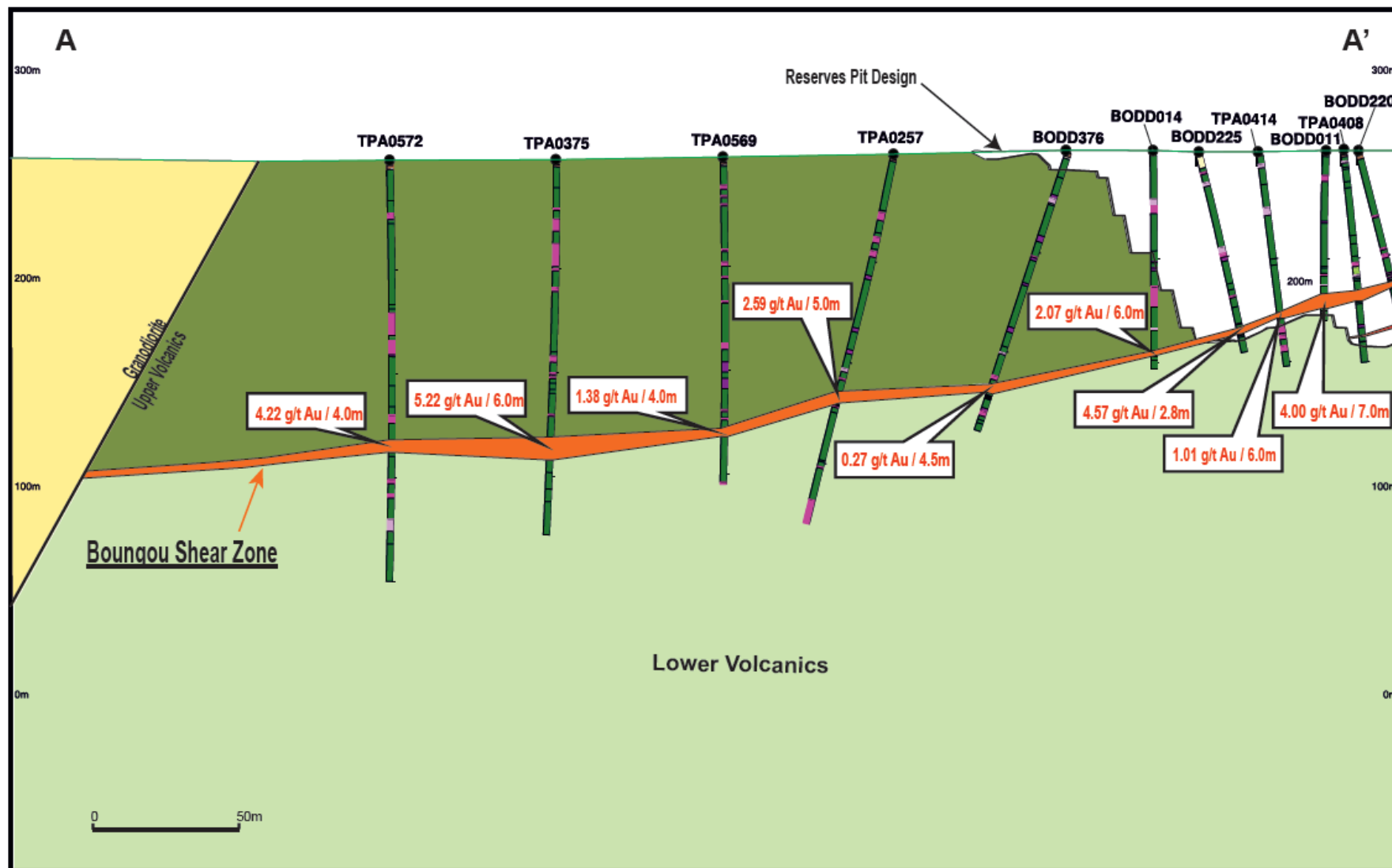
DISCOVERY OF 754,000 OUNCES OF INFERRED RESOURCES IN THE WEST FLANK



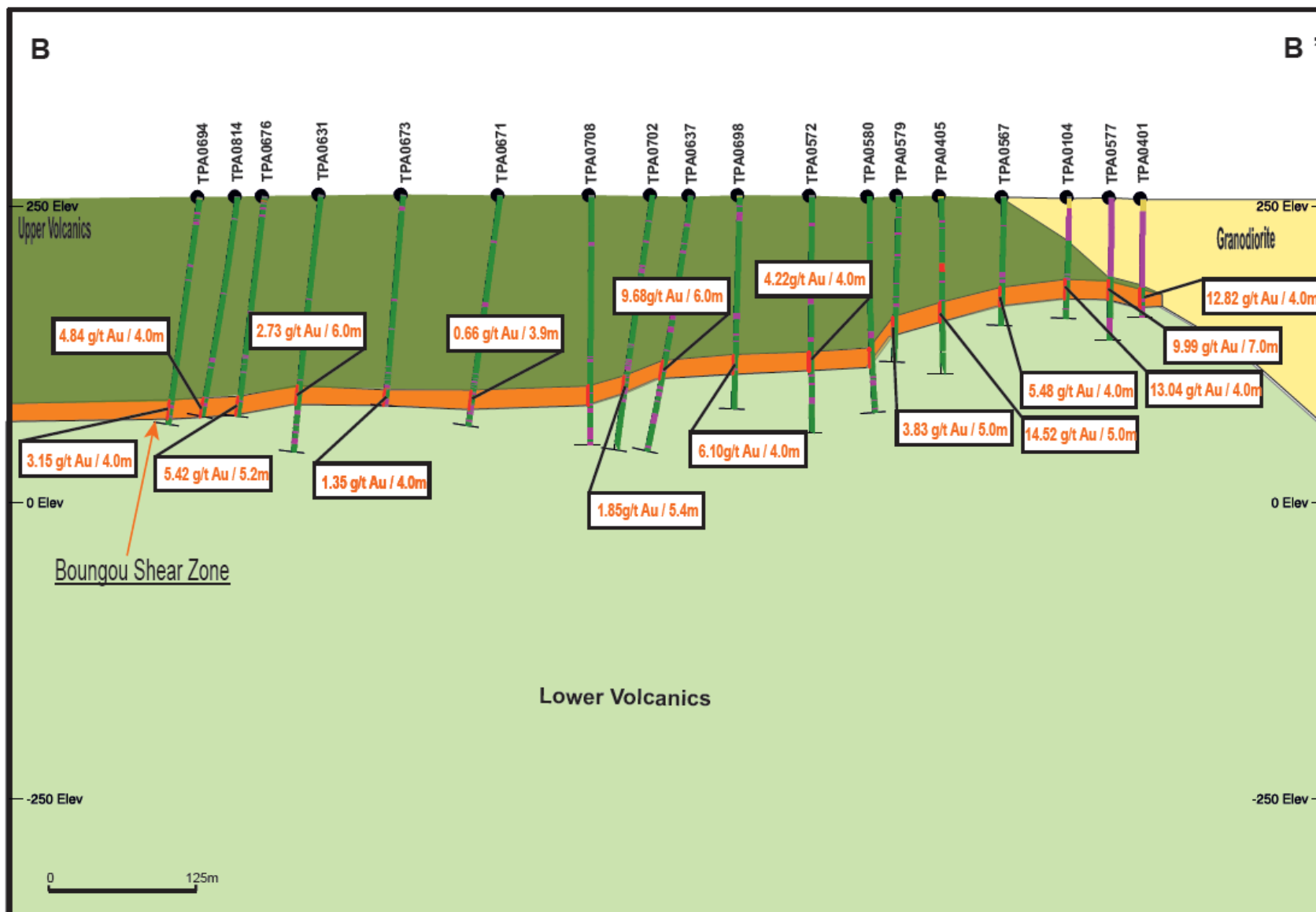
Next steps

- To drill up the inferred resources into the indicated category in H1 2017
- To evaluate the potential for an underground operation

WEST FLANK BOUNGOU SHEAR ZONE A-A' SECTION



WEST FLANK BOUNGOU SHEAR ZONE B-B' SECTION

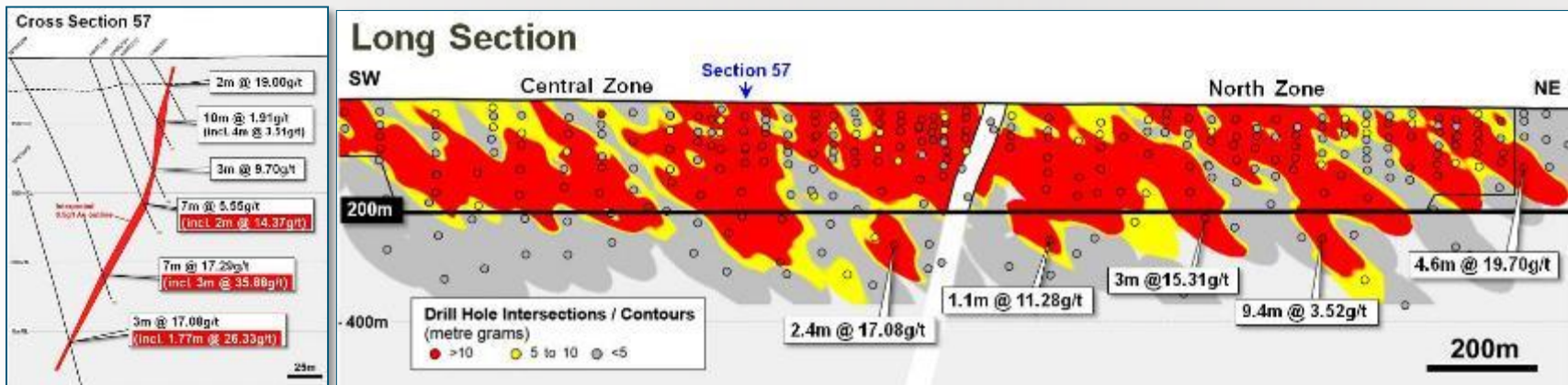


NABANGA: A HIGH-GRADE ASSET



Nabanga – Inferred Mineral Resources¹

Cut-off Grade	Tonnes	Grade	Ounces
5.0 g/t Au	1.84 Mt	10.0 g/t Au	590,000 oz

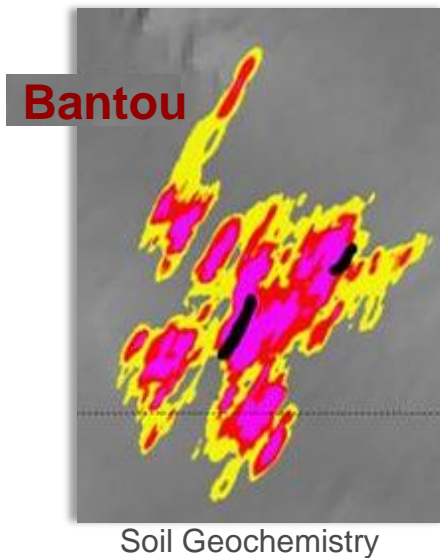
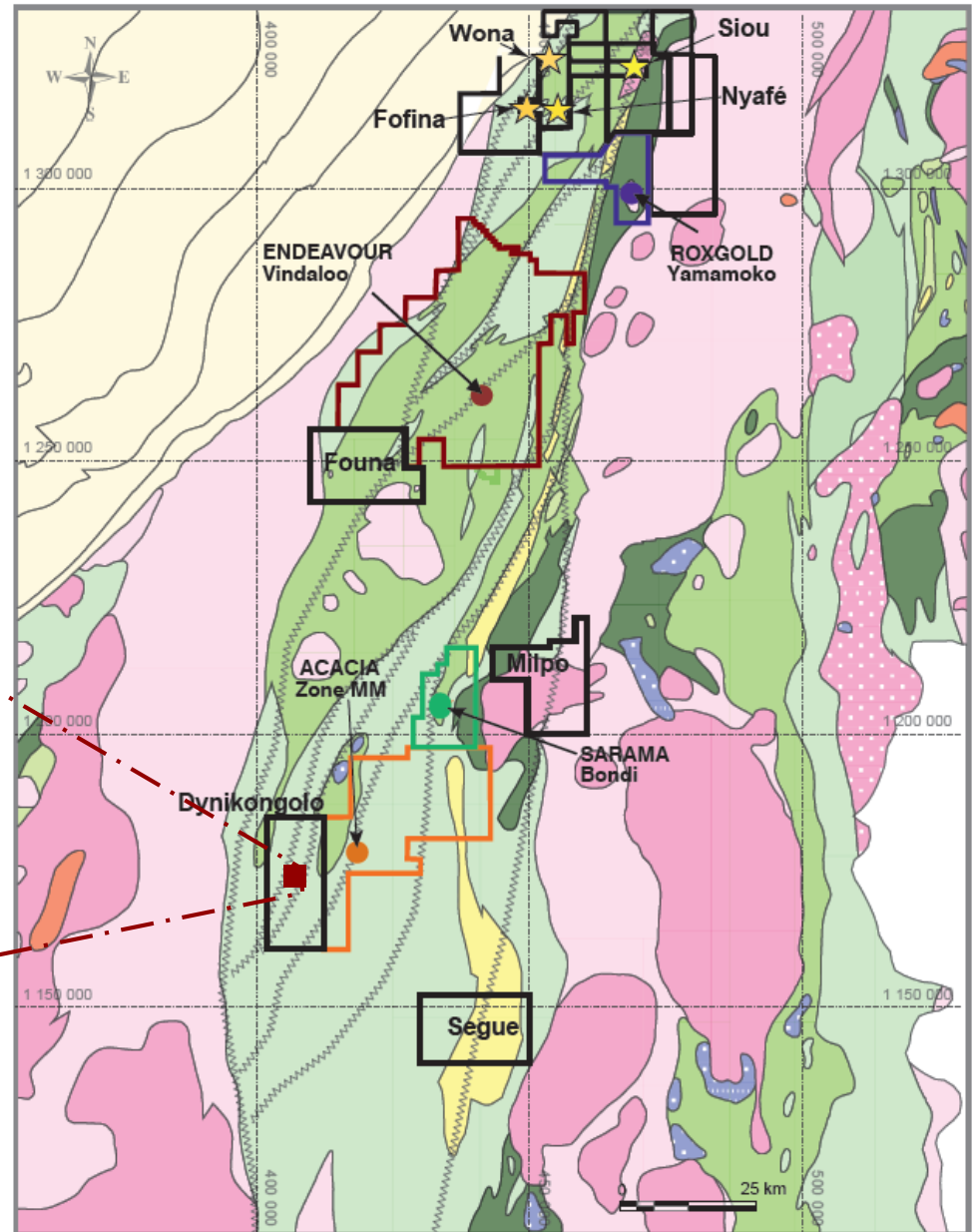


¹Inferred Mineral Resources figures at a 5.0 g/t Au cut-off grade. NI 43-101 report, June 2015

PROSPECTIVE PROPERTIES ON THE SOUTH HOUNDÉ BELT



8,400-meter drilling program on
Dynikongolo and Milpo permits



Bantou

Soil Geochemistry

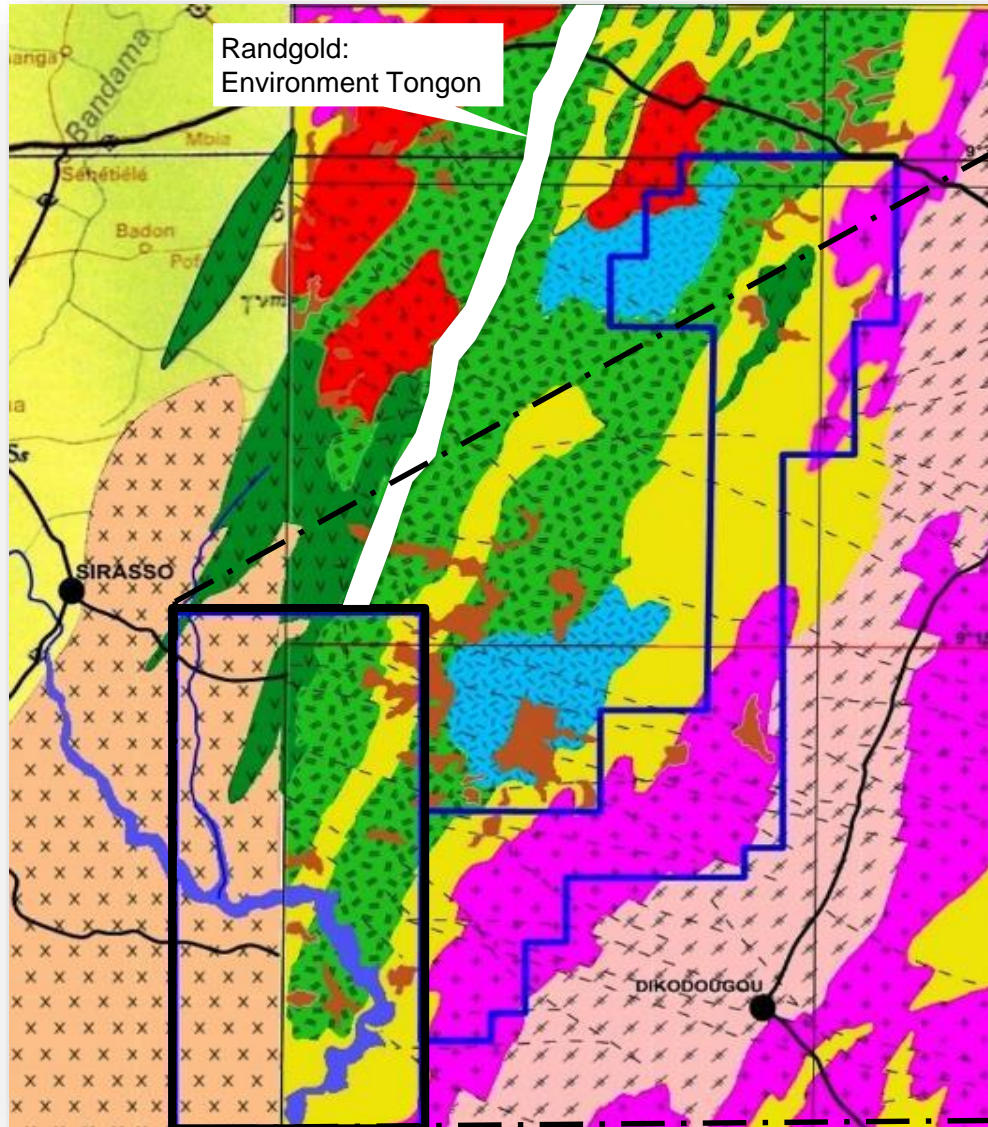
SEMAFO DEPOSITS



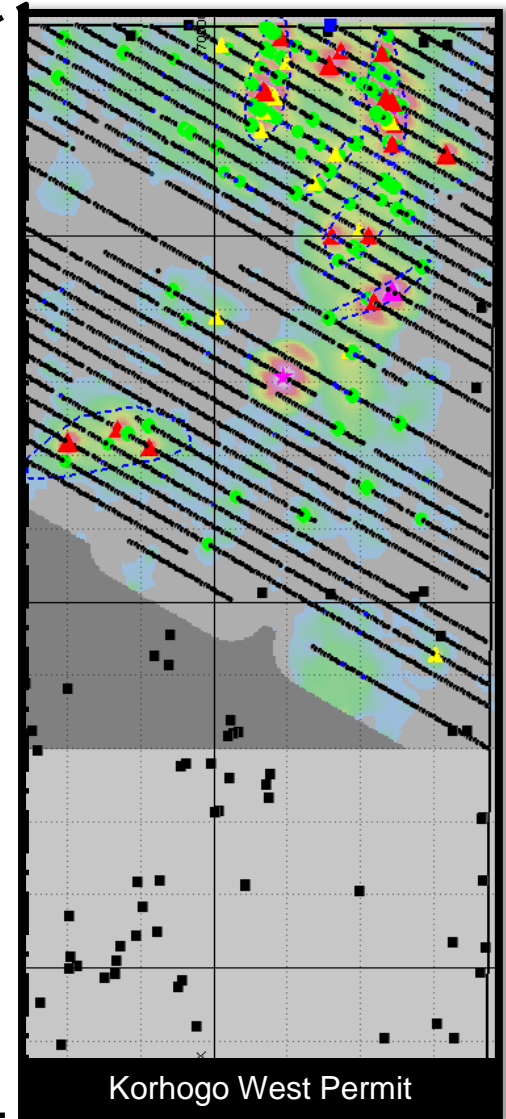
SEMAFO PERMITS



EXPLORATION UPSIDE: KORHOGO WEST PERMIT IN CÔTE D'IVOIRE



Recent soil sampling results



2017 PRIORITIES



NATOUGOU

- Maintaining our construction schedule and budget
- Evaluating the underground potential of the West Flank with in-fill drilling
 - Indicated resources in H1 2017
 - Reserves by year-end 2017

MANA

- Delivering our production guidance for a tenth consecutive year
- Exploring within trucking distance of the mine
- Gradually increasing ore sourced from Wona North
- Evaluating potential for underground operation at Siou

OTHERS

- Exploring Nabanga, Bantou and Korhogo
- Maintaining our cost reduction efforts

FINANCIAL FLEXIBILITY



- Cash at December 31, 2016 - \$274M
- Long-term debt (LIBOR +4.75%) of \$60M
- Additional \$60M can be drawn down by June 30, 2017

SOCIAL INVESTMENT AT THE HEART OF OUR VALUE CREATION



Strong Safety Record –
Accident frequency rate of
1.85 per 200,000 HOURS
worked as of December 31, 2016

**National Workforce
Development Program –**
Training of promising national employees
for management or trainer positions

Training –
5,270 HOURS
of training were dispensed in 2016 to our
Burkinabe employees

SEMAFO Foundation –
Seven years of activities generated
revenues of **C\$5.5M**
to the benefit of communities



- **Track Record of Operating Success in West Africa**
 - Achieved production guidance for nine consecutive years
 - Production of 240,200 ounces in 2016
 - Total cash cost of \$548 per ounce for 2016
 - All-in sustaining cost of \$720 per ounce for 2016
 - Successfully commissioned three mines in West Africa
- **Disciplined Growth Strategy**
 - Targeted exploration in vicinity of Mana Mine and Natougou deposit
 - Start of Natougou project construction in Q4 2016
 - Exploration on Korhogo West and Bantou permits on strong geological trends
 - High-grade open-pit assets
- **Financial Strength**
 - \$274M in cash (as at December 31, 2016)
 - Long-term debt of \$60M
 - Additional \$60M for drawdown by June 30, 2017
 - Generating free cash flow
- **Strong CSR Program**
 - 2009 pledge to commit up to 2% of net profit to support SEMAFO Foundation community activities
 - Accident frequency rate of 1.85 per 200,000 hours worked
 - 292 days without lost time injury
 - Well-established National Workforce Development Program

SMF: INVESTOR INFORMATION



TSX, OMX: SMF

Average Daily
Trading Volume⁽¹⁾
3.0M

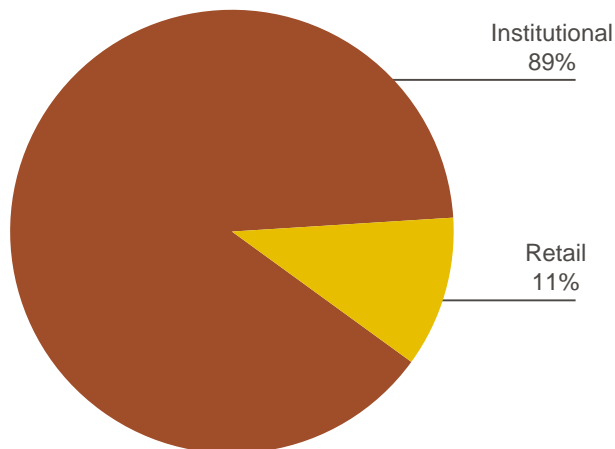
Coverage
14
analysts

Close
C\$4.71

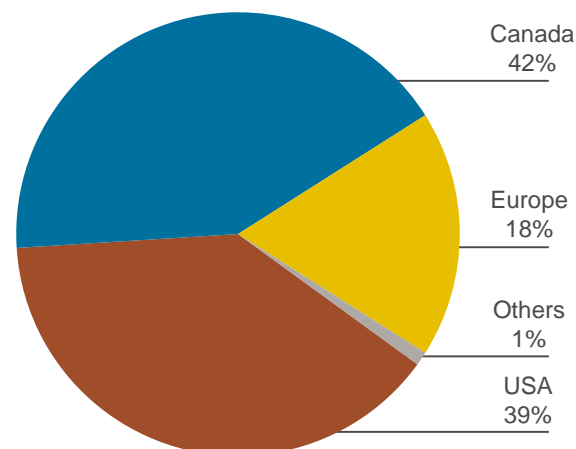
Market Cap
C\$1.5B

*As at February 22, 2016

O/S 324.8M SHARES



GEOGRAPHIC DISTRIBUTION OF SHARES⁽²⁾



DIRECTORS

Jean Lamarre
CHAIR OF THE BOARD

John LeBoutillier
LEAD DIRECTOR

Terence F. Bowles

Benoit Desormeaux
PRESIDENT AND
CHIEF EXECUTIVE OFFICER

Flore Konan

Gilles Masson

Lawrence McBrearty

Tertius Zongo

⁽¹⁾ Three-month moving average as at February 22, 2016 – TSX

⁽²⁾ Estimated – CDS (Canadian Clearing and Depository Services), Computershare, Euroclear

SEMAFO MINE RESERVES AND RESOURCES (DEC. 31, 2016)



PROPERTY	Mana ^{1,2,4,5,6}	Tapoa ^{1,2,4,5,6} (Natougou Project)	Yactibo ^{1,3,4,5,7} (Nabanga Project)	Total
MINERAL RESERVES				
Proven				
Tonnes	10,242,000	1,583,000		11,825,000
Grade (g/t Au)	3.09	6.46		3.54
Ounces	1,017,000	329,000		1,346,000
Probable				
Tonnes	8,400,000	7,984,000		16,384,000
Grade (g/t Au)	2.63	3.69		3.15
Ounces	710,600	947,000		1,657,600
TOTAL MINERAL RESERVES				
Tonnes	18,642,000	9,567,000		28,209,000
Grade (g/t Au)	2.88	4.15		3.31
Ounces	1,727,600	1,276,000		3,003,600
MINERAL RESOURCES (exclusive of reserves)				
Measured				
Tonnes	9,050,000	70,000		9,120,000
Grade (g/t Au)	1.47	1.90		1.48
Ounces	428,600	4,000		432,600
Indicated				
Tonnes	35,981,000	2,602,000		38,583,000
Grade (g/t Au)	2.04	2.48		2.07
Ounces	2,360,600	207,000		2,567,600
TOTAL M&I				
Tonnes	45,031,000	2,672,000		47,703,000
Grade (g/t Au)	1.93	2.46		1.96
Ounces	2,789,200	211,000		3,000,200
Inferred				
Tonnes	13,022,000	6,298,000	1,840,000	21,160,000
Grade (g/t Au)	2.95	3.72	10.00	3.79
Ounces	1,233,600	754,000	590,000	2,577,600

- ¹ The Corporation indirectly owns a 100% interest in all of its permits, except for the permits held by SEMAFO Burkina Faso S.A. and SEMAFO Boungou S.A., respectively, in which the Government of Burkina Faso holds a 10% interest.
- ² Mineral reserves and resources at Mana and at Tapoa (Natougou project) were estimated using a gold price of \$1,100 and \$1,400 per ounce, respectively.
- ³ Mineral resources at Yactibo Permit Group (Nabanga project) were reported above a 5.0 g/t Au cut-off grade.
- ⁴ Rounding of numbers of tonnes and ounces may present slight differences in the figures.
- ⁵ All mineral resources reported are exclusive of mineral reserves.
- ⁶ As of December 31, 2016.
- ⁷ As of June 30, 2015.

MANA MINE RESERVES AND RESOURCES (DEC. 31, 2016)



	DEPOSITS	DECEMBER 31, 2016								
		PROVEN RESERVES			PROBABLE RESERVES			TOTAL RESERVES		
		Tonnage	Grade (g/t Au)	Ounces ⁴	Tonnage	Grade (g/t Au)	Ounces ⁴	Tonnage	Grade (g/t Au)	Ounces ⁴
MANA ^{1,2,3}	WONA-KONA	6,060,000	2.35	457,900	6,308,000	2.24	454,700	12,368,000	2.30	912,600
	NYAFÉ	263,000	5.85	49,400	4,000	5.02	700	267,000	5.84	50,100
	FOFINA	199,000	3.38	21,600	12,000	2.69	1,000	211,000	3.33	22,600
	SIOU	3,535,000	4.14	470,500	1,461,000	4.65	218,400	4,996,000	4.29	688,900
	YAMA	-	-	-	615,000	1.81	35,800	615,000	1.81	35,800
	ROMPAD	185,000	2.96	17,600	-	-	-	185,000	2.96	17,600
	TOTAL	10,242,000	3.09	1,017,000	8,400,000	2.63	710,600	18,642,000	2.88	1,727,600

	DEPOSITS	DECEMBER 31, 2016								
		MEASURED			INDICATED			TOTAL RESOURCES		
		Tonnage	Grade (g/t Au)	Ounces ⁴	Tonnage	Grade (g/t Au)	Ounces ⁴	Tonnage	Grade (g/t Au)	Ounces ⁴
MANA ^{1,2,3}	WONA-KONA	1,419,000	1.98	90,200	21,696,000	2.55	1,778,400	23,115,000	2.51	1,868,600
	NYAFÉ	300,000	5.60	54,100	230,000	5.84	43,100	530,000	5.70	97,200
	FOFINA	412,000	3.67	48,600	309,000	4.04	40,200	721,000	3.83	88,800
	YAH0	5,738,000	0.91	168,500	11,636,000	0.88	330,800	17,374,000	0.89	499,300
	FILON 67	26,000	2.72	2,300	9,000	3.59	1,000	35,000	2.93	3,300
	FOBIRI	469,000	1.80	27,100	114,000	1.52	5,600	583,000	1.74	32,700
	SIOU	686,000	1.71	37,800	1,879,000	2.65	160,100	2,565,000	2.40	197,900
	YAMA	-	-	-	108,000	0.41	1,400	108,000	0.40	1,400
	TOTAL	9,050,000	1.47	428,600	35,981,000	2.04	2,360,600	45,031,000	1.93	2,789,200

	DEPOSITS	DECEMBER 31, 2016		
		INFERRED		
		Tonnage	Grade (g/t Au)	Ounces ⁴
MANA ^{1,2,3}	WONA-KONA	3,463,000	2.96	329,600
	NYAFÉ	151,000	5.86	28,400
	FOFINA	88,000	3.73	10,500
	YAH0	223,000	0.78	5,600
	FILON 67	6,000	6.32	1,100
	FOBIRI	578,000	1.39	25,800
	MAOULA	2,628,000	1.62	137,100
	SIOU	5,834,000	3.70	693,200
	YAMA	51,000	1.42	2,300
	TOTAL	13,022,000	2.95	1,233,600

¹ The Corporation indirectly owns 90% of SEMAFO Burkina Faso S.A., which directly holds the interest in the Mana Mine reserves and resources.

² Mineral reserves and resources were estimated using a gold price of \$1,100 and \$1,400 per ounce, respectively.

³ All mineral resources reported are exclusive of mineral reserves.

⁴ Rounding of numbers of tonnes and ounces may present slight differences in the figures.



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