



Corporate Presentation

March 2018



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 “outlook”, “guidance”, “targets”, “forecast”, “on time, on budget”, “continues”, “payback”, “plan” 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 our 2019-2023 targets of 5-year average consolidated production of 413,000 oz at 5-year average \$696 AISC, the ability to commission Boungou in Q3 2018, the ability to meet our 6-year consolidated targets in terms of production, cost and operating cash flow, the ability to meet our 2018 production guidance of between 235,000 and 265,000 ounces of gold at an all-in-sustaining cost of between \$900 and \$940 per ounce, the ability to meet our 6-year production and cost targets at each of Boungou and Mana, the ability to meet our 2018 general and administrative expense forecast of \$16 million, the ability to construct Boungou on time and on budget, Mana’s ability to meet its 5-year production target of 209,000 oz per year, the ability to start the Siou UG development in Q3 2018, the ability to build the Siou underground on time and on budget, the ability of the Siou underground to provide a one year payback on development capital, the ability of our 2018 exploration program to meet its objectives, the accuracy of our assumptions, 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 2016 Annual MD&A, as updated in SEMAFO’s 2017 First Quarter MD&A, 2017 Second Quarter MD&A and 2017 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.

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SEMAFO OVERVIEW

400,000+ oz Producer at <\$700 AISC



MANA

- 2008 First gold pour
- Strong 6-year outlook
- 1.7M oz Reserves at 2.9 g/t



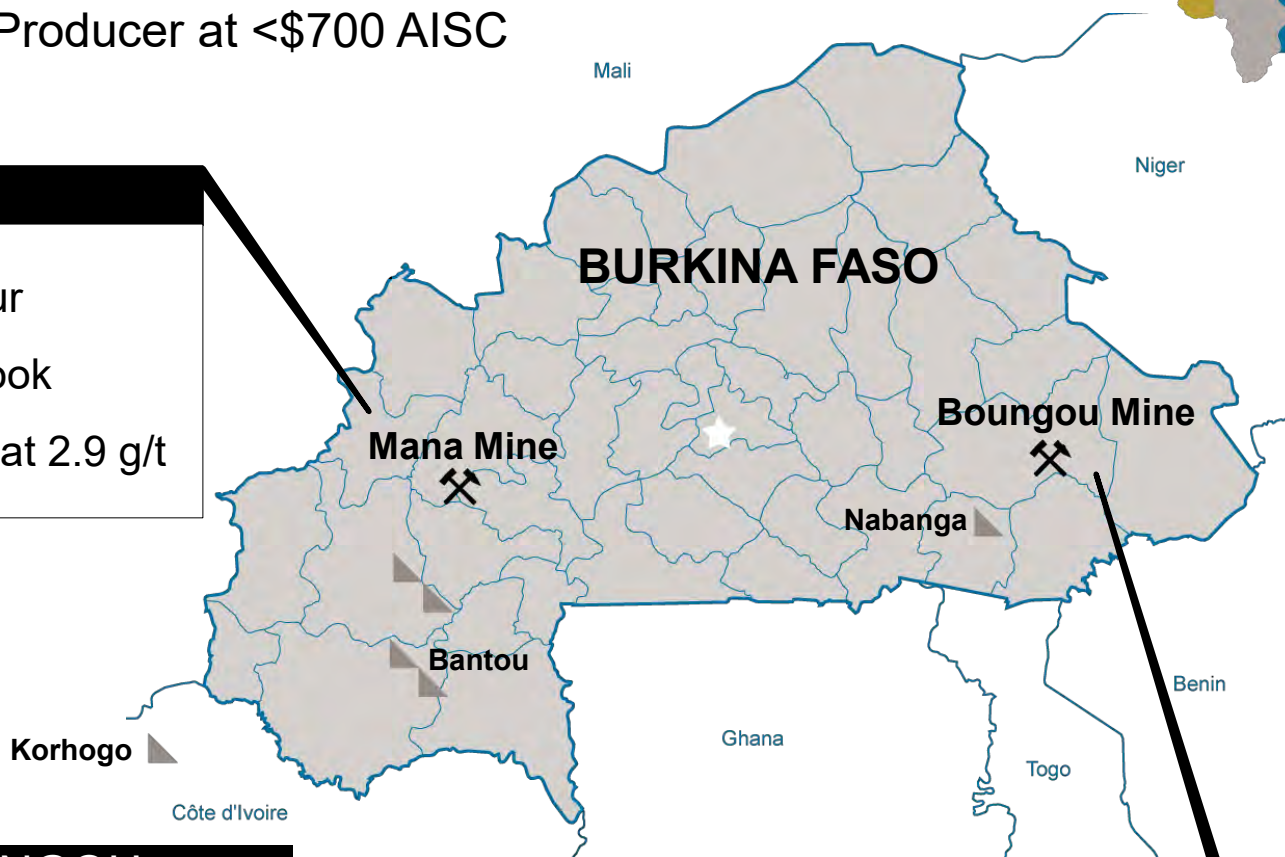
MANA + BOUNGOU

- 2018 Set-up year
- 2019-2023 Targets: 5-year average production 413,000 oz at 5-year average \$696 AISC
- 3.2M oz Reserves at 3.4 g/t



BOUNGOU

- Commissioning Q3 2018
- Strong 6-year outlook
- 1.5M oz Reserves at 4.1 g/t





CORPORATE SNAPSHOT

Net Cash and Conservative Capital Structure



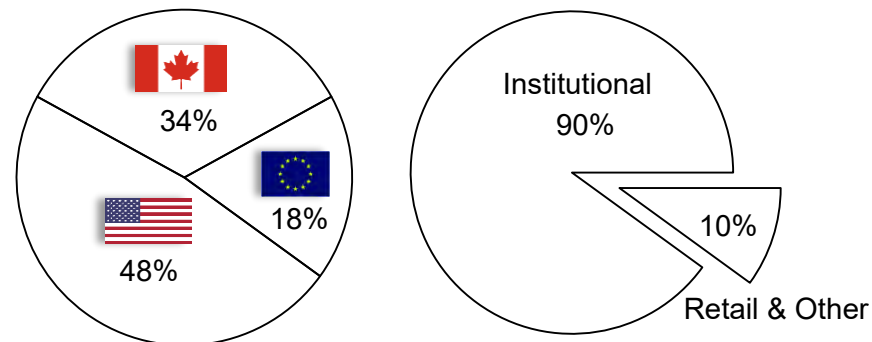
Enterprise Value

Shares - Basic		325M
Shares - F.D.		327M
Share Price (Feb 20/18)	C\$	3.30
Market Cap (1.25 US\$/C\$)	US\$	858M
Cash (Dec 31/17)	US\$	222M
Debt (Dec 31/17)	US\$	120M
Enterprise Value	US\$	756M
Net Cash (Dec 31/17)	US\$	102M

Boungou Capital

Boungou Capital	US\$	231M
Incurred to Dec 31/17	US\$	159M
Remaining	US\$	72M

Shareholders



Research Analyst Coverage





6-YEAR PRODUCTION & COST TARGETS

Over \$1.3B of Operating Cash Flow at \$1,300 Gold Price



Operating
Cash Flow
(US\$M)

\$95

\$275

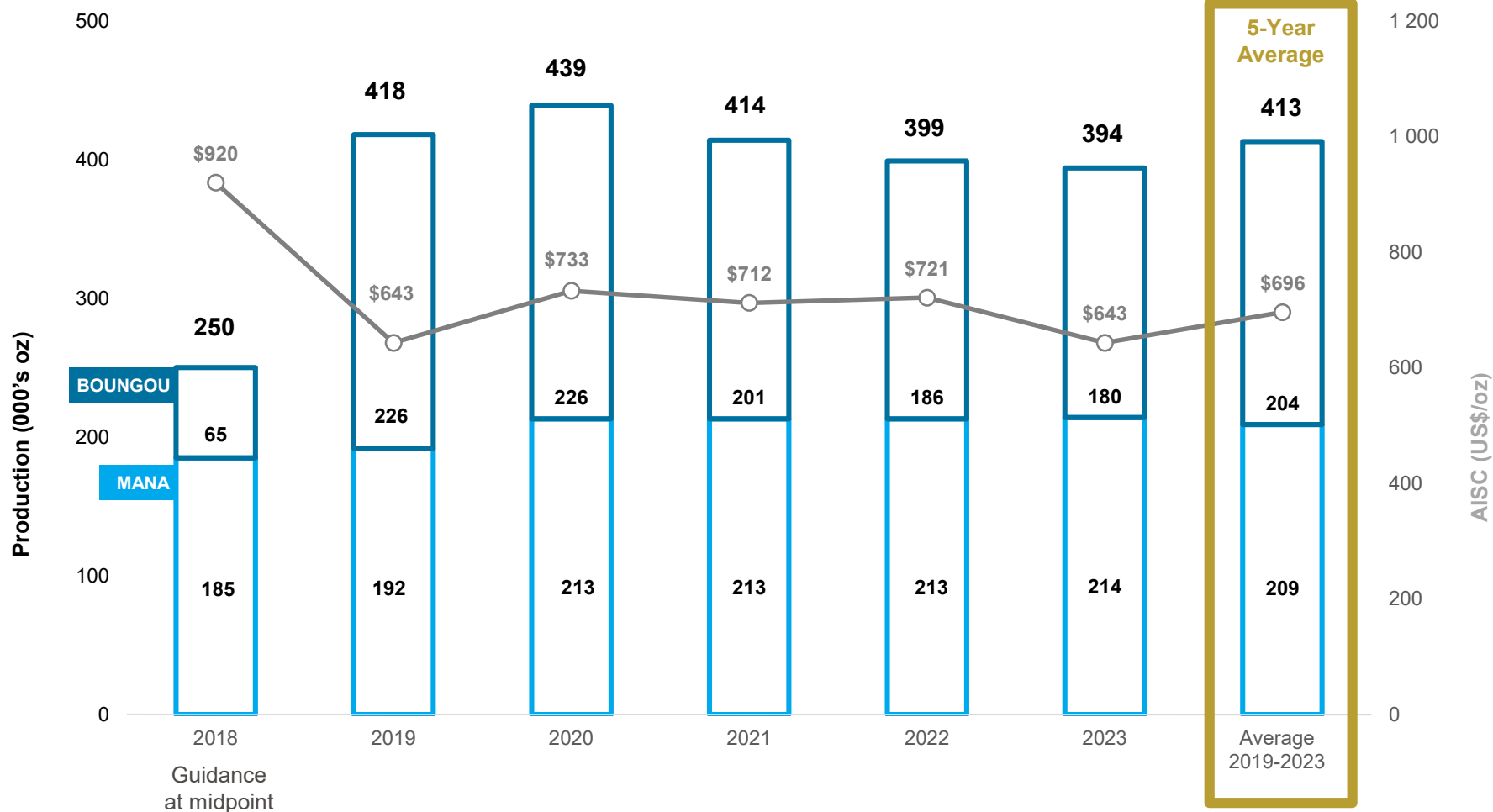
\$250

\$244

\$231

\$259

6-Year
Total
>\$1.3B



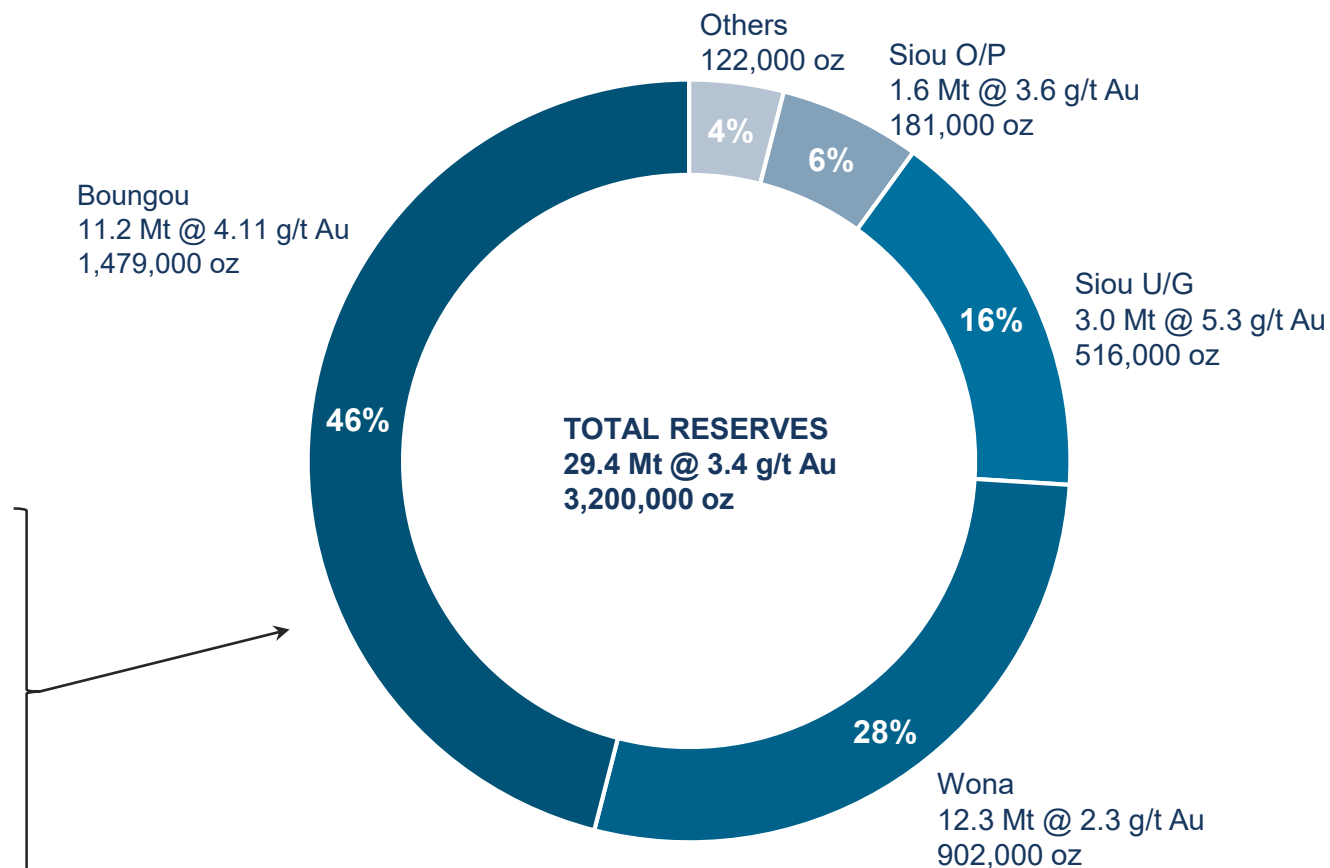


RESERVES AND RESOURCES SUMMARY

High Quality Reserve Base



2017



* All mineral resources are exclusive of mineral reserves.



2018 GUIDANCE



	Consolidated	Mana	Boungou (Commercial)
Gold production ('000 oz)	235 – 265	175 - 195	60 - 70
All-in sustaining cost (\$/oz)	900 - 940	1,020 – 1,070	545 - 570
Capital Expenditure (included in AISC) (in millions of \$)			
Sustaining	13	10	3
Stripping	<u>55</u>	<u>44</u>	<u>11</u>
	68	54	14

■ Development capital expenditures that are not included in the AISC for 2018 are \$14.5 million out of the total of \$51.7 million for Siou underground.

■ The general and administrative expense for 2018 has been forecast at \$16 million.



BOUNGOU OVERVIEW



- Construction began Q1 2017
- Commissioning Q3 2018

Construction continues on time, on budget	
Boungou Capital	\$231M
Incurred to Dec 31/2017	<u>\$159M</u>
Remaining	\$72M

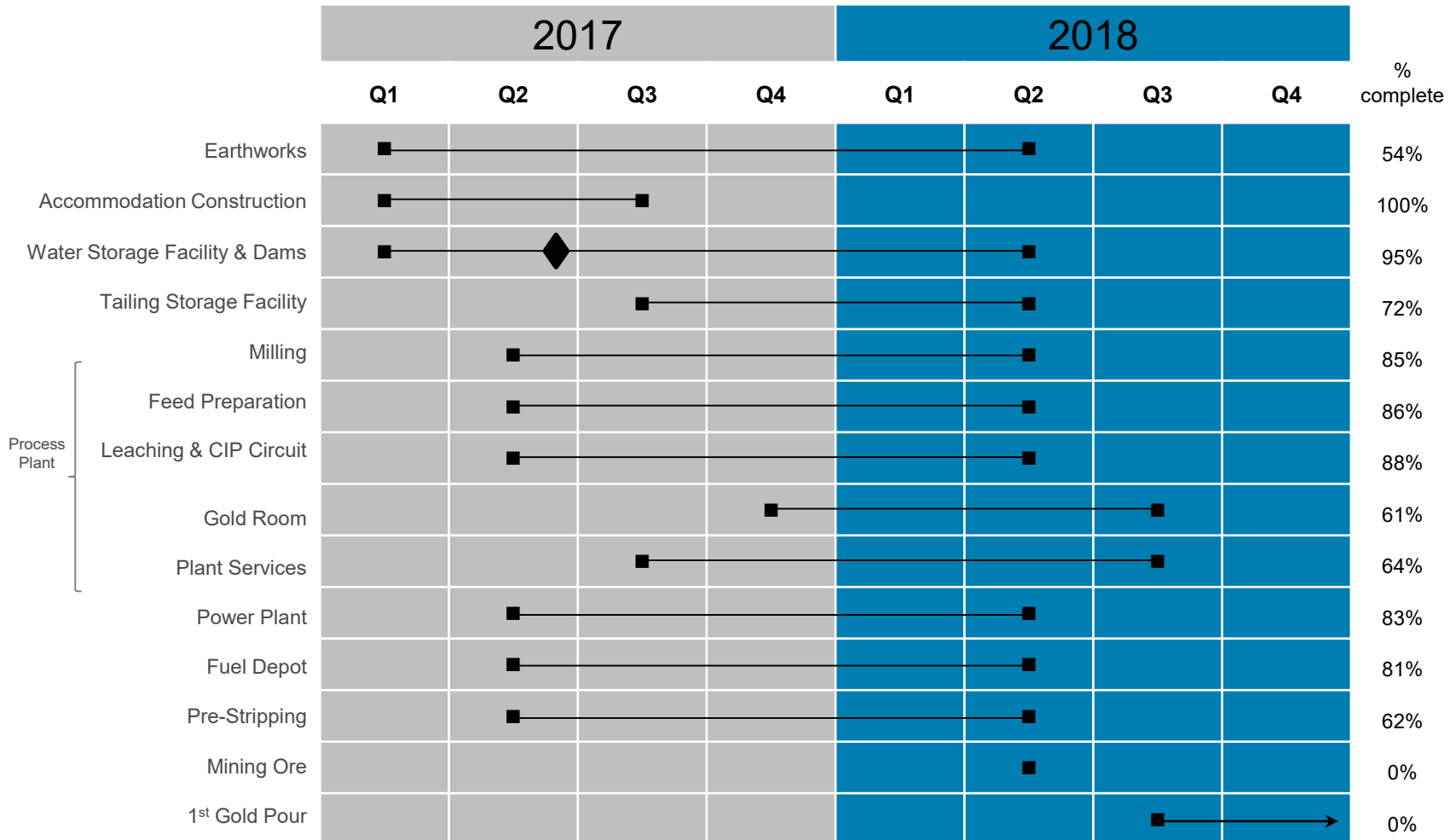


- 1.5M oz reserves at 4.1g/t
- 2017 added 203,000 oz reserves that improved 5-year average production to 204,000 oz per year at \$516 AISC



BOUNGOU ON TIME AND ON BUDGET

83% Complete at January 31, 2018

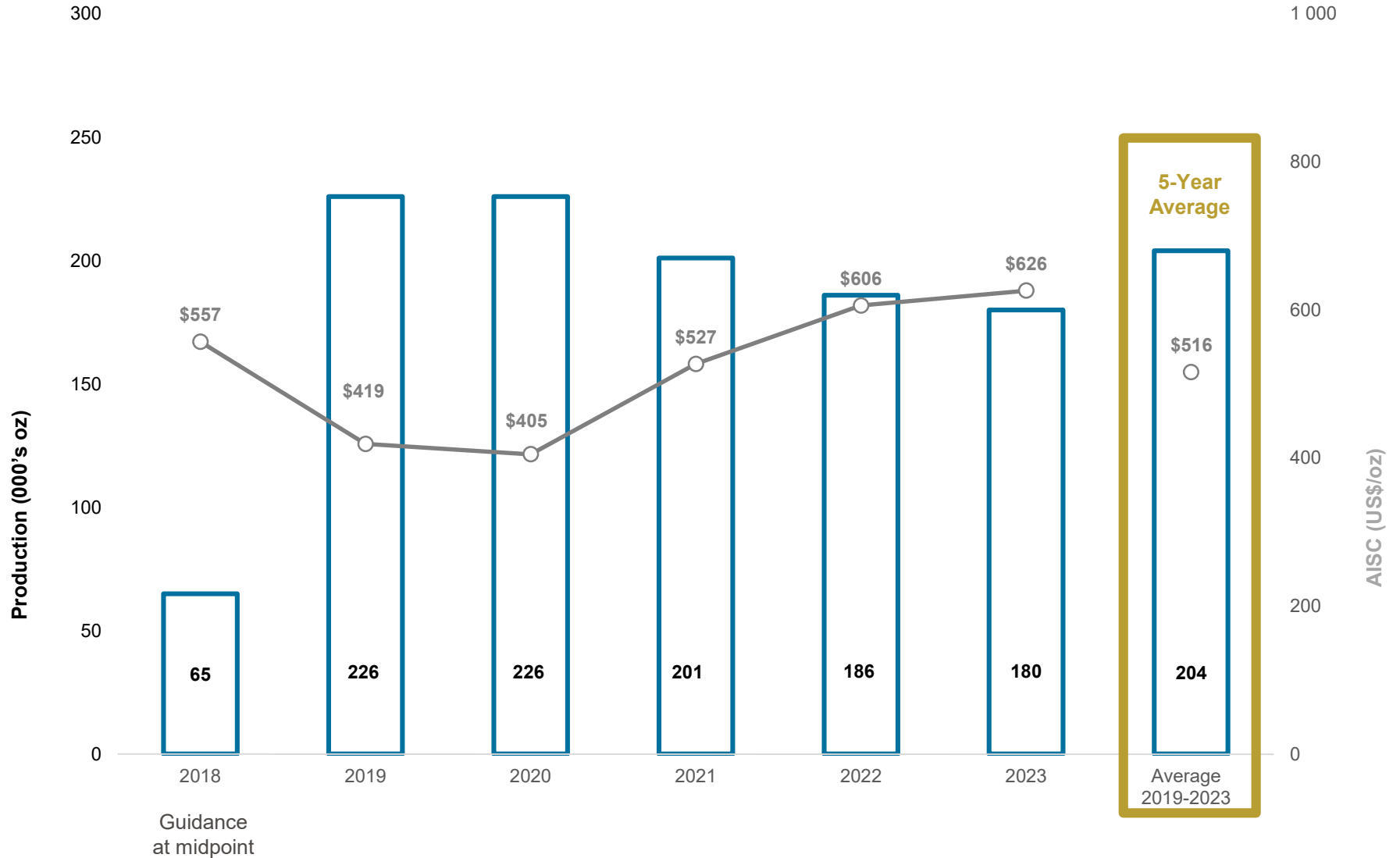


◆ The water storage facility is already functional



BOUNGOU TARGETS

6-Year Production and Cost





MANA OVERVIEW



- First gold pour 2008
- Plant and resources upgraded and extended over time



- 1.7M oz reserves at 2.9 g/t
- Mana February 2018 PFS provides updated mine plan for Wona-Kona, Siou O/P and Siou U/G

- 2017 added 200,000 oz reserves that improved 5-year average production target to 209,000 oz per year at AISC \$871
- Siou UG development starts Q3 2018



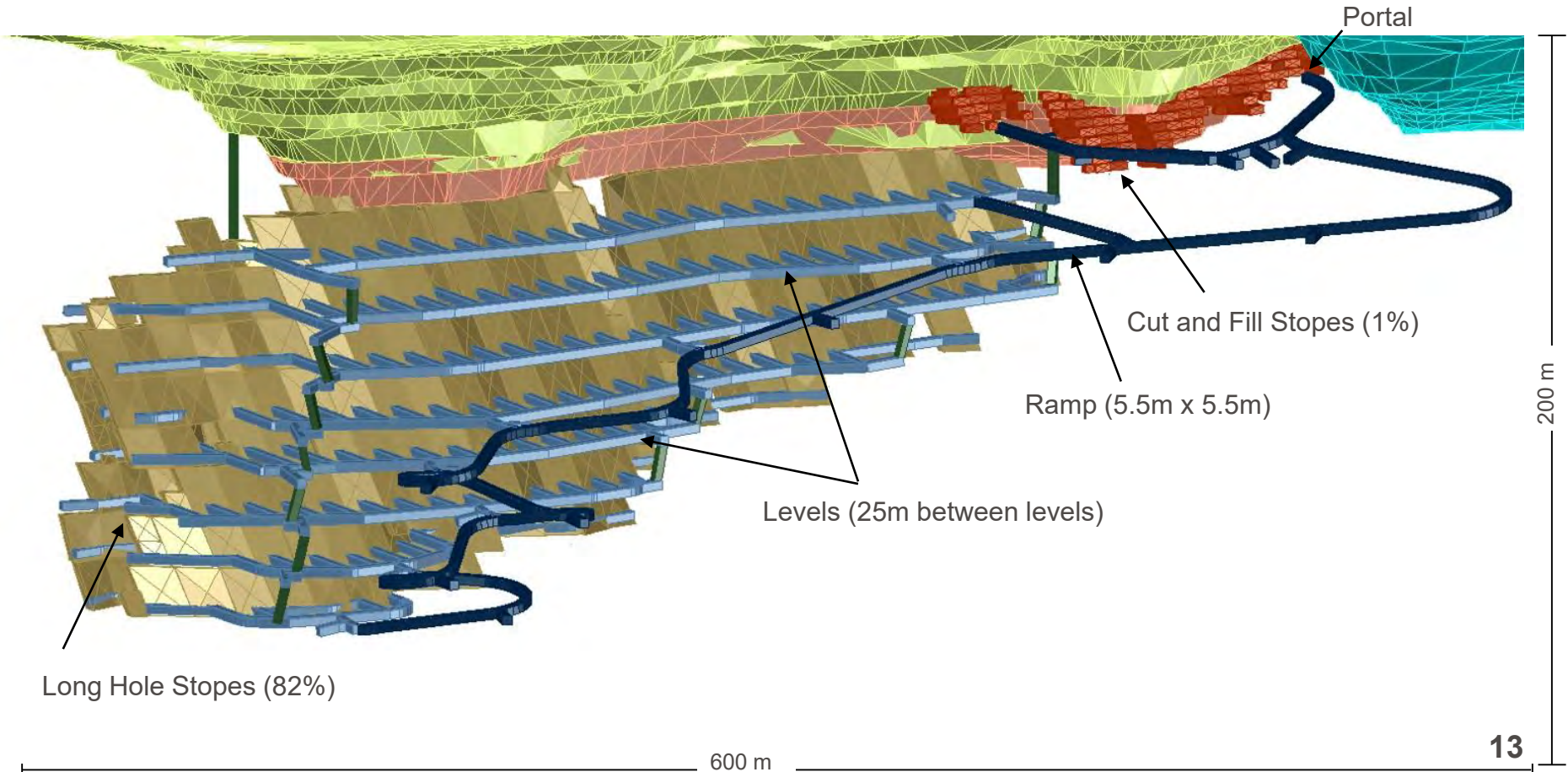


SIOU UNDERGROUND OVERVIEW

\$51M Development Capital has < 1 year Payback

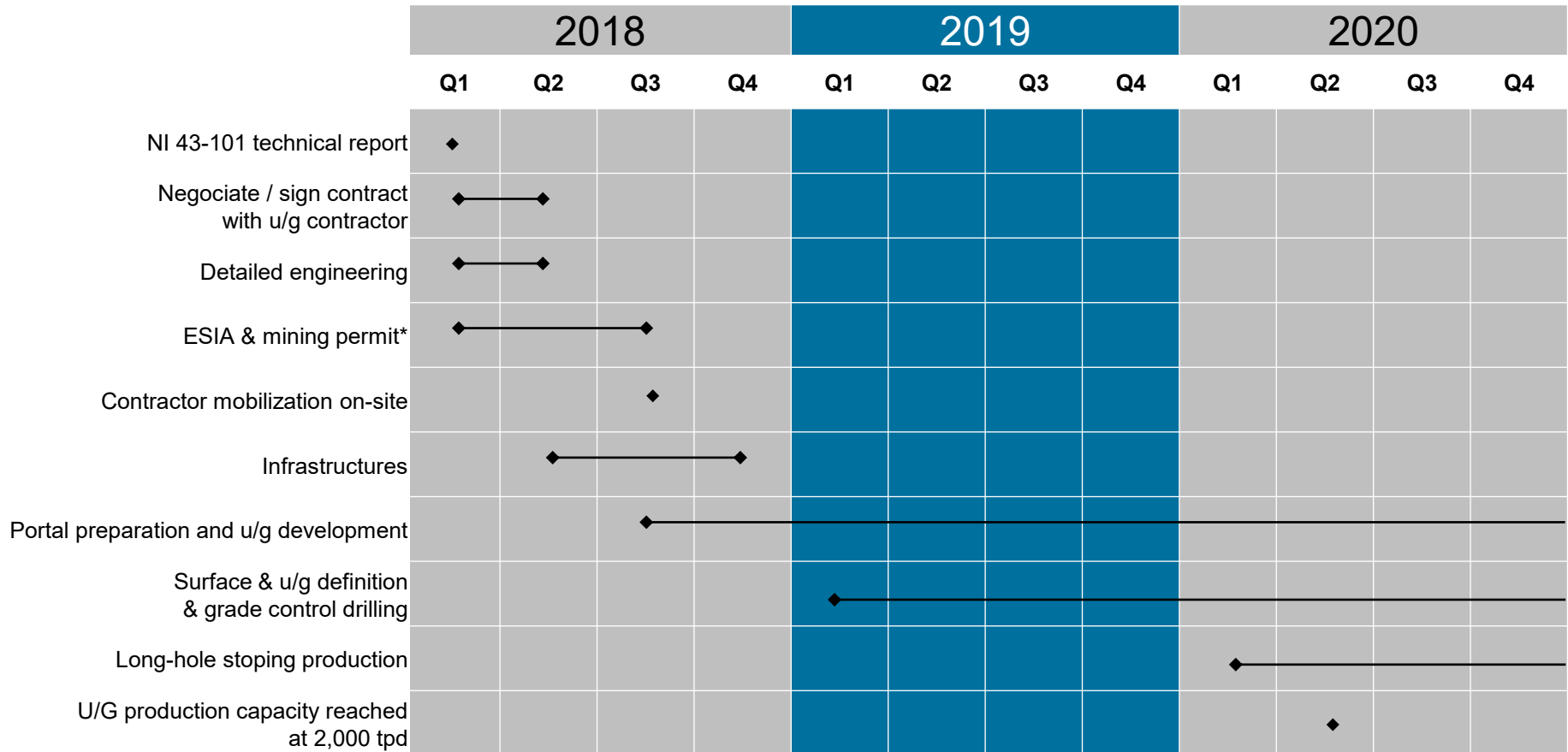


- Portal (5.5m x 5.5m) and ramp (14° slope) located at the bottom of the Siou pit
- 2,000 tpd will require working 3-6 stopes per month depending on size and width of stopes
- Backfill for primary stopes are 4% cemented rockfill and secondary stopes are filled with only waste rock
- Two types of long hole mining will be used
 - 80% Transversal long hole mining for stopes wider than 10m
 - 20% Longitudinal long hole mining for stopes smaller than 10m





SIOU UNDERGROUND DEVELOPMENT TIMELINE

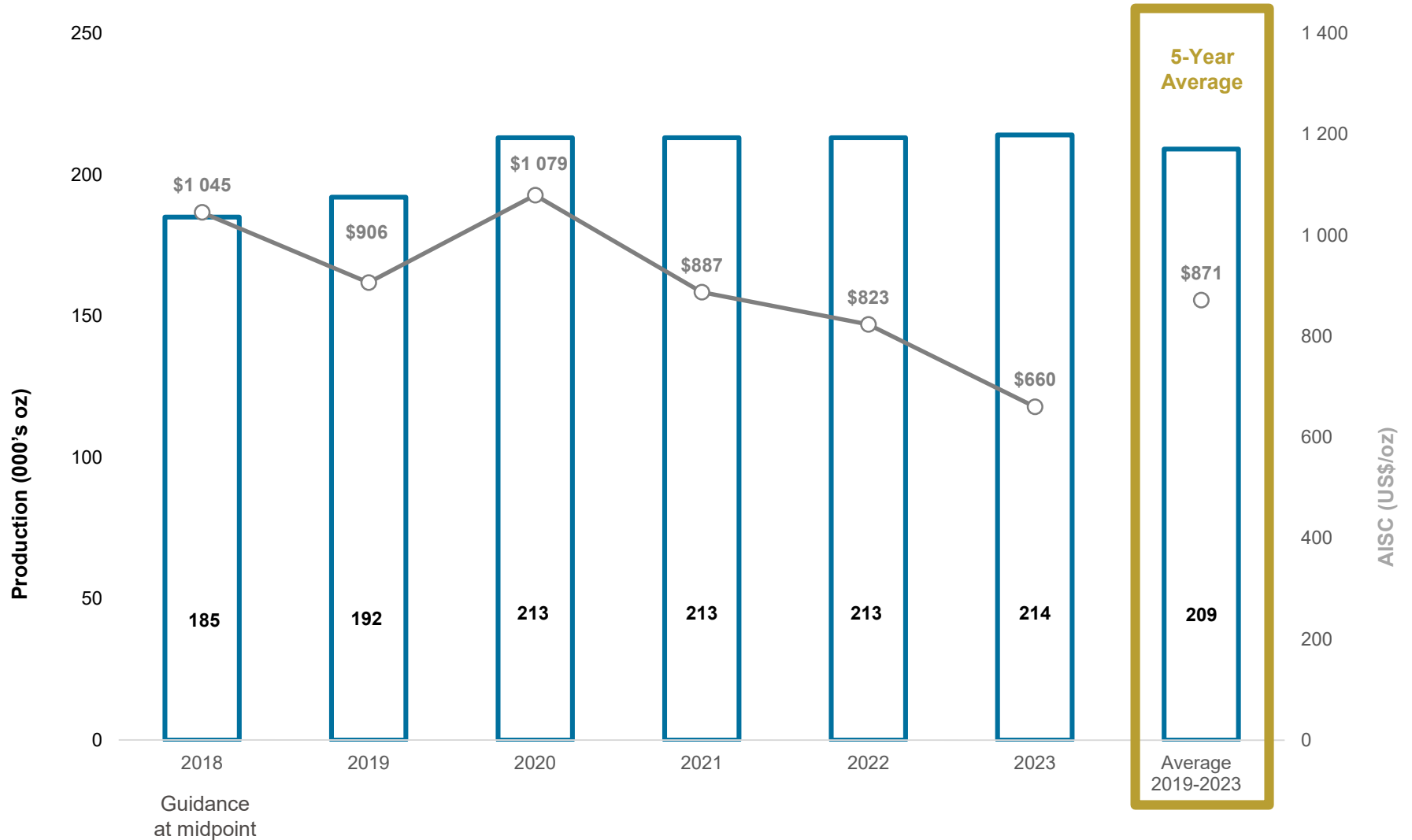


* Current exploration permit allows for u/g development start-up



MANA TARGETS

6-Year Production and Cost





CORPORATE SOCIAL RESPONSIBILITY (CSR)

Maintaining Strong Social Licence



**Training –
12,000 HOURS**
Per year of training to Burkinabe employees



**See Appendix for List of Local
Community Projects**



Local Community Support –
Over 93% of workforce are Burkinabè

**National Workforce
Development Program –**
Training Burkinabè employees for
management or trainer positions



STRONG SAFETY RECORD AND CULTURE

While Maintaining Cost Discipline



BOUNGOU

4.1 million man-hours worked without lost-time injury

MANA

341 days worked without lost-time injury





SEMAFO IS A SIMPLE STORY

Clean and straightforward



✓ WHAT WE DO HAVE ✓

- ✓ Strong 6-year outlook
- ✓ >\$1.3B Operating Cash Flow
2018-2023 at \$1,300 Au
- ✓ Net cash now and in future
- ✓ Simple low cost debt that can be repaid any time without penalty
- ✓ Conservative capital structure

x WHAT WE DON'T HAVE x

- x No hedges
- x No gold loans
- x No gold streams
- x No complicated financing schemes
or arrangements
- x No off-balance financing
- x No unreported dilution

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2018 EXPLORATION OVERVIEW



\$26 Million Consolidated 2018 Budget

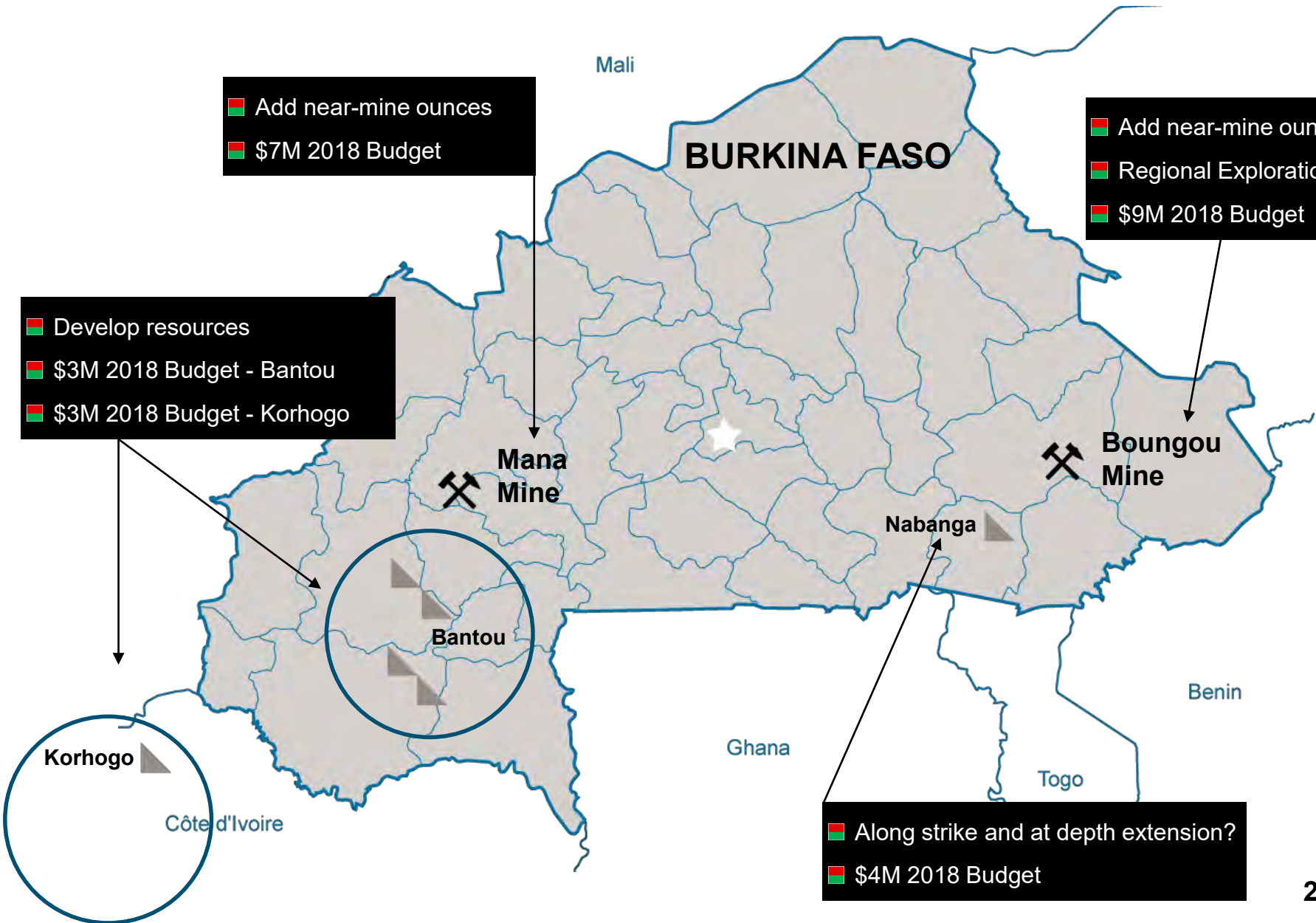


 Add near-mine ounces
 \$7M 2018 Budget

 Add near-mine ounces
 Regional Exploration
 \$9M 2018 Budget

 Develop resources
 \$3M 2018 Budget - Bantou
 \$3M 2018 Budget - Korhogo

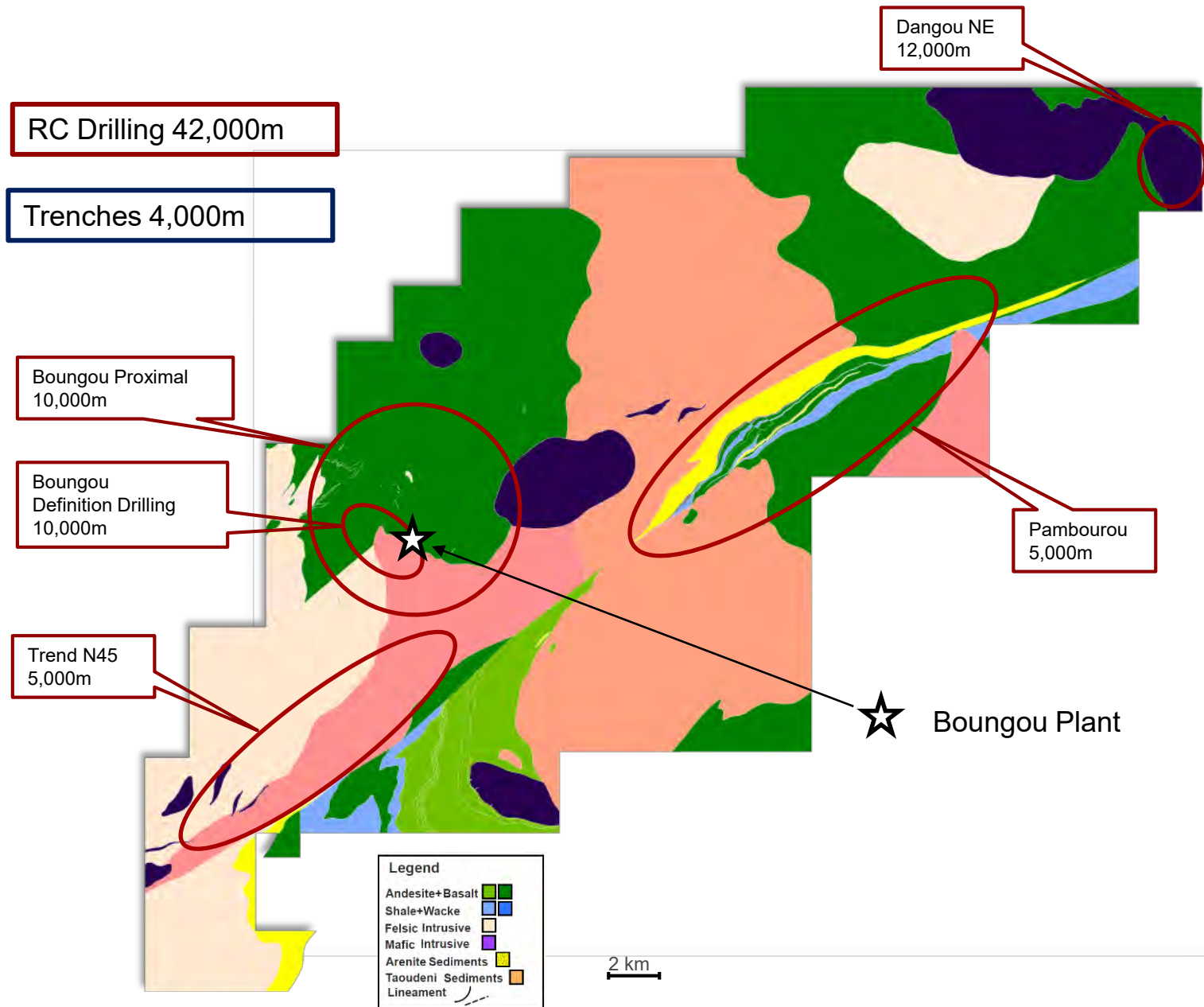
 Along strike and at depth extension?
 \$4M 2018 Budget





2018 BOUNGOU EXPLORATION PLAN

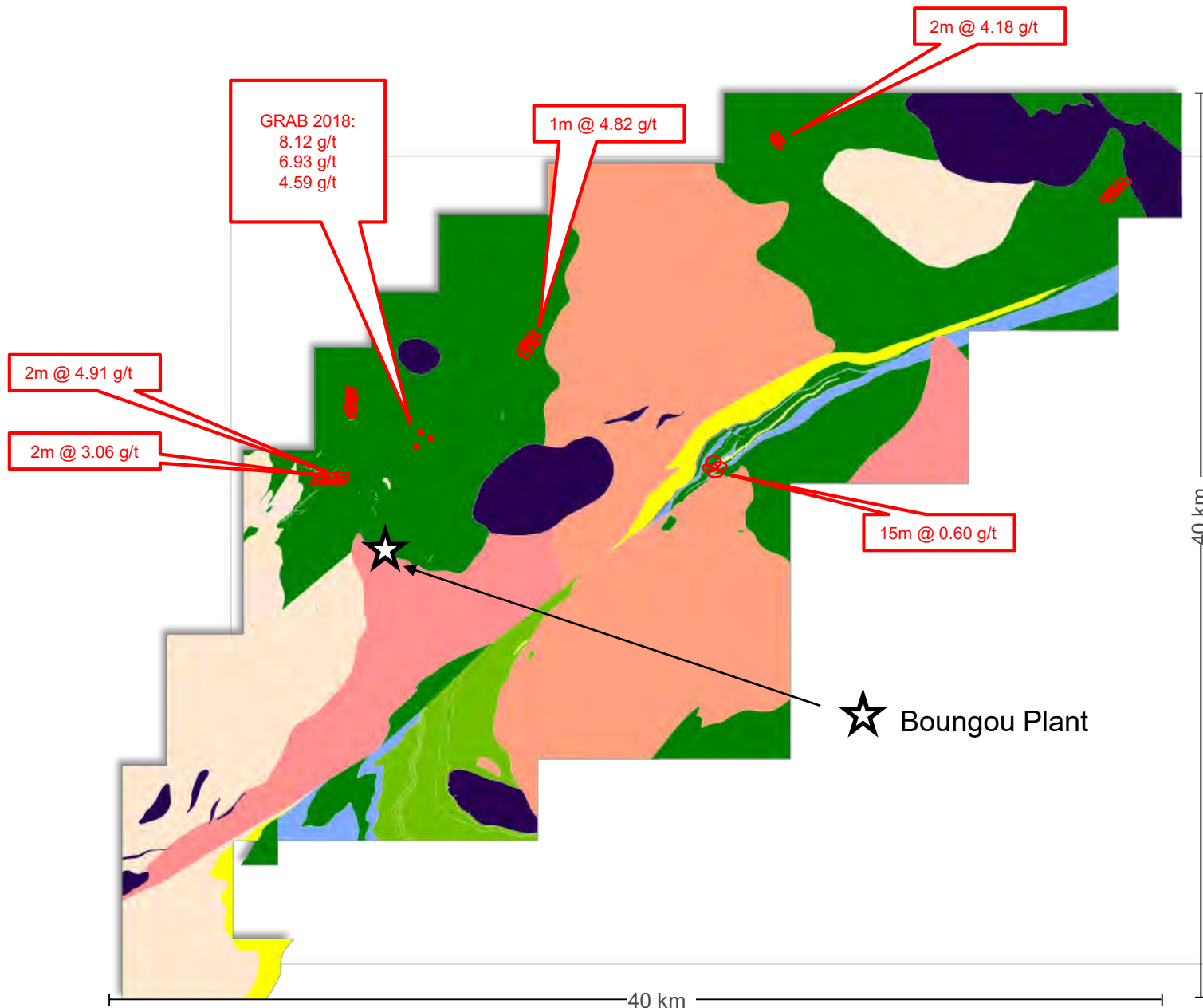
All Targets within 30 km of Plant





2018 BOUNGOU EXPLORATION PROGRAM

Tapoa Regional Exploration Highlights





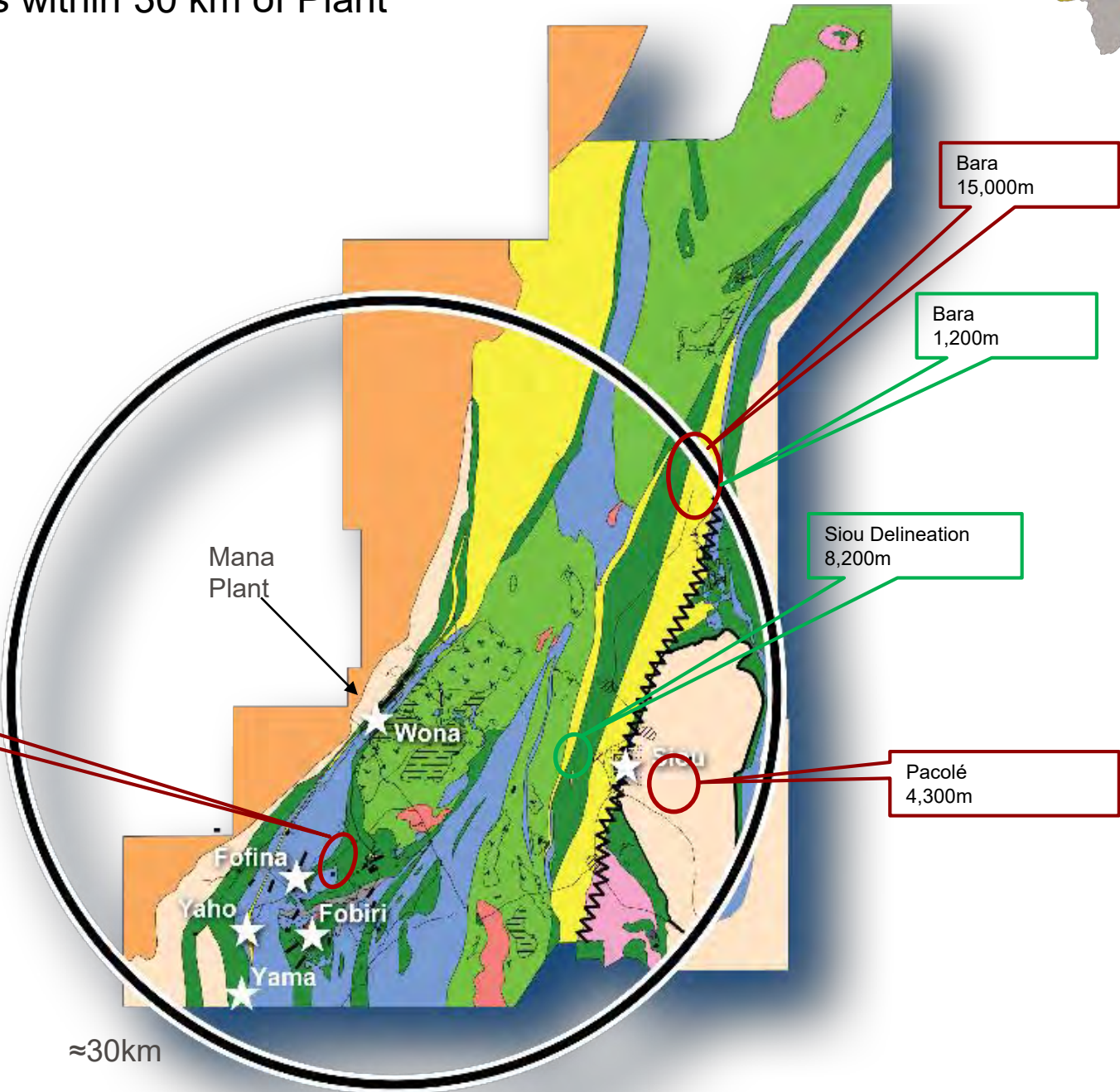
2018 MANA EXPLORATION PLAN

All Targets within 30 km of Plant



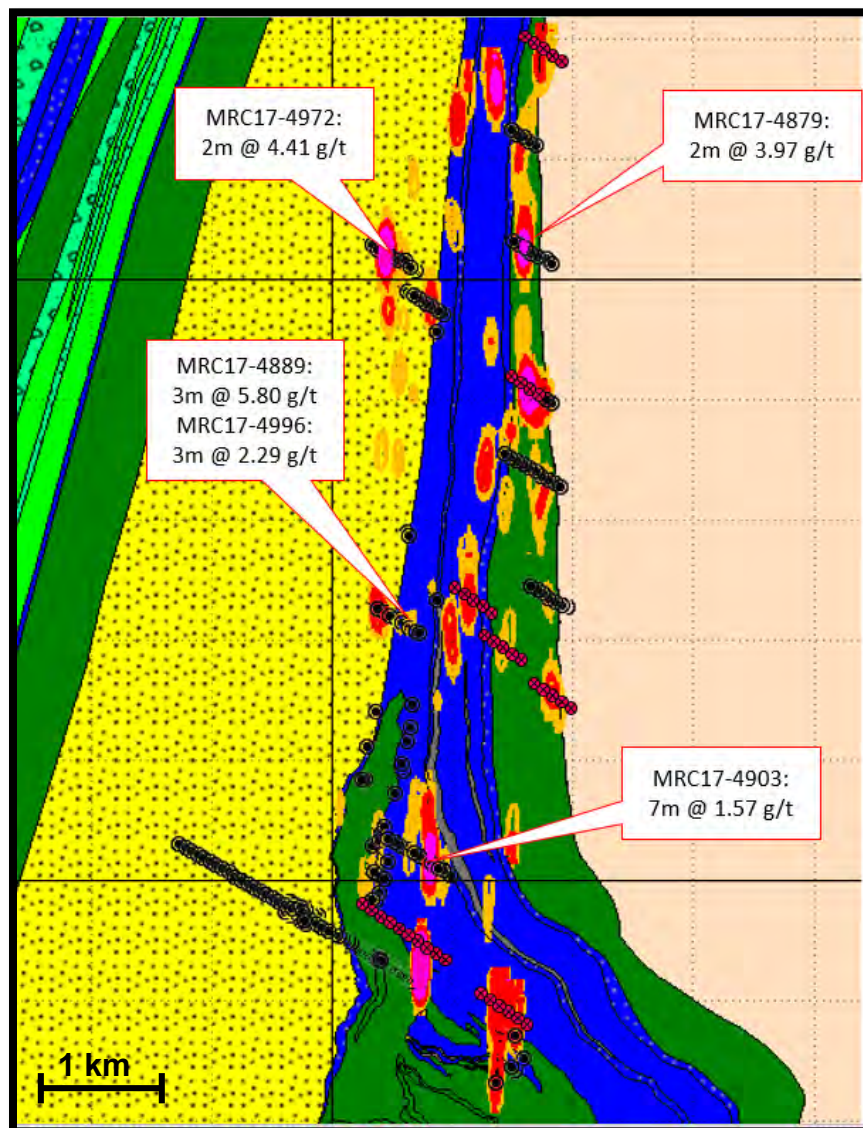
DDH 2018
10,000m

RC 2018
25,000m

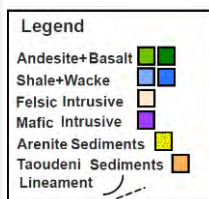


2018 MANA EXPLORATION PROGRAM

Bara Target: 15,000m RC + 1,200m DDH



- Eastern border of the Houndé belt
- Important lithological contact and major shear zone
- Granitoid, mafic lavas and Tarkwaian sediments
- Context similar to Siou (granodiorite) and Wona (volcanic-sedimentary band)
- Interesting 2017 intersections, including 3m @5.80 g/t and 7m @1.57 g/t
- Strong untested auger anomalies located in different contexts





2018 NABANGA EXPLORATION PROGRAM

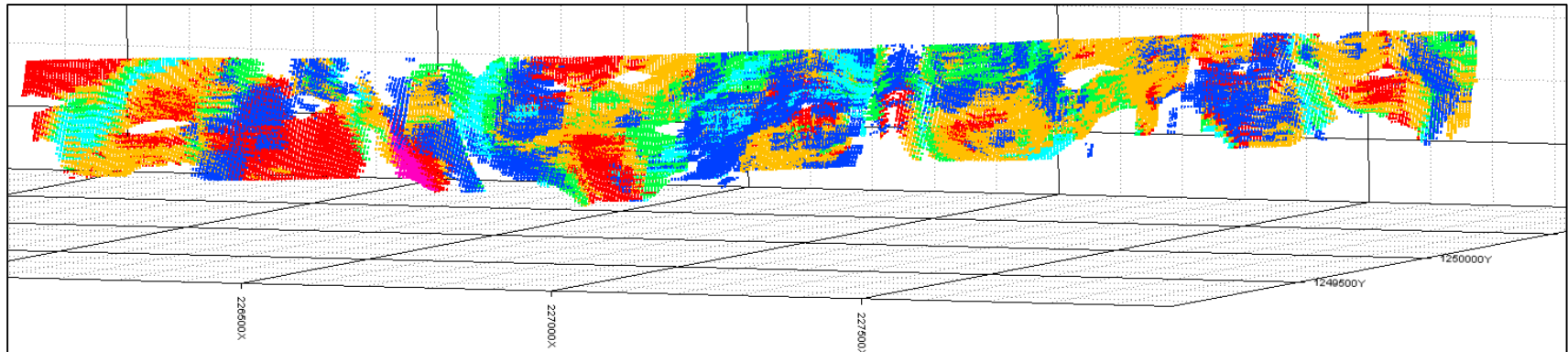
Reinterpretation of Historic Drilling



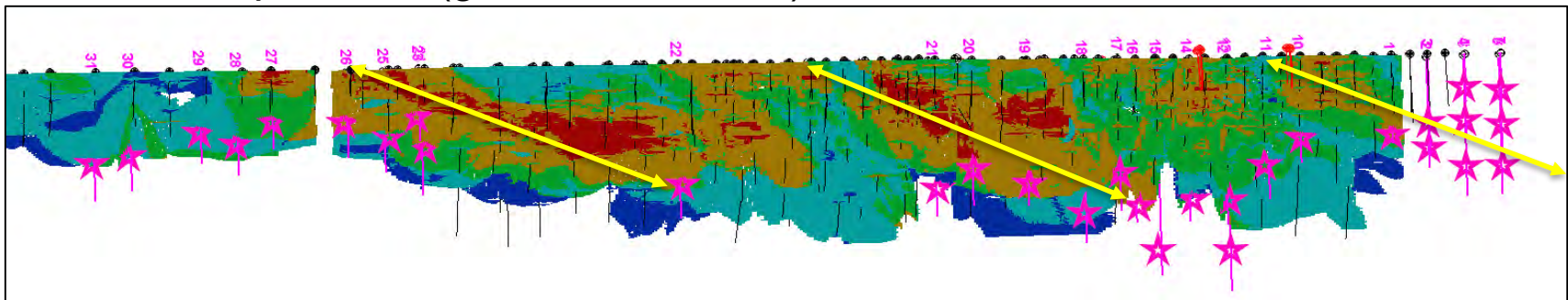
Inferred Mineral Resource (June 2015 NI 43-101)

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

Historic Interpretation (grade * thickness)



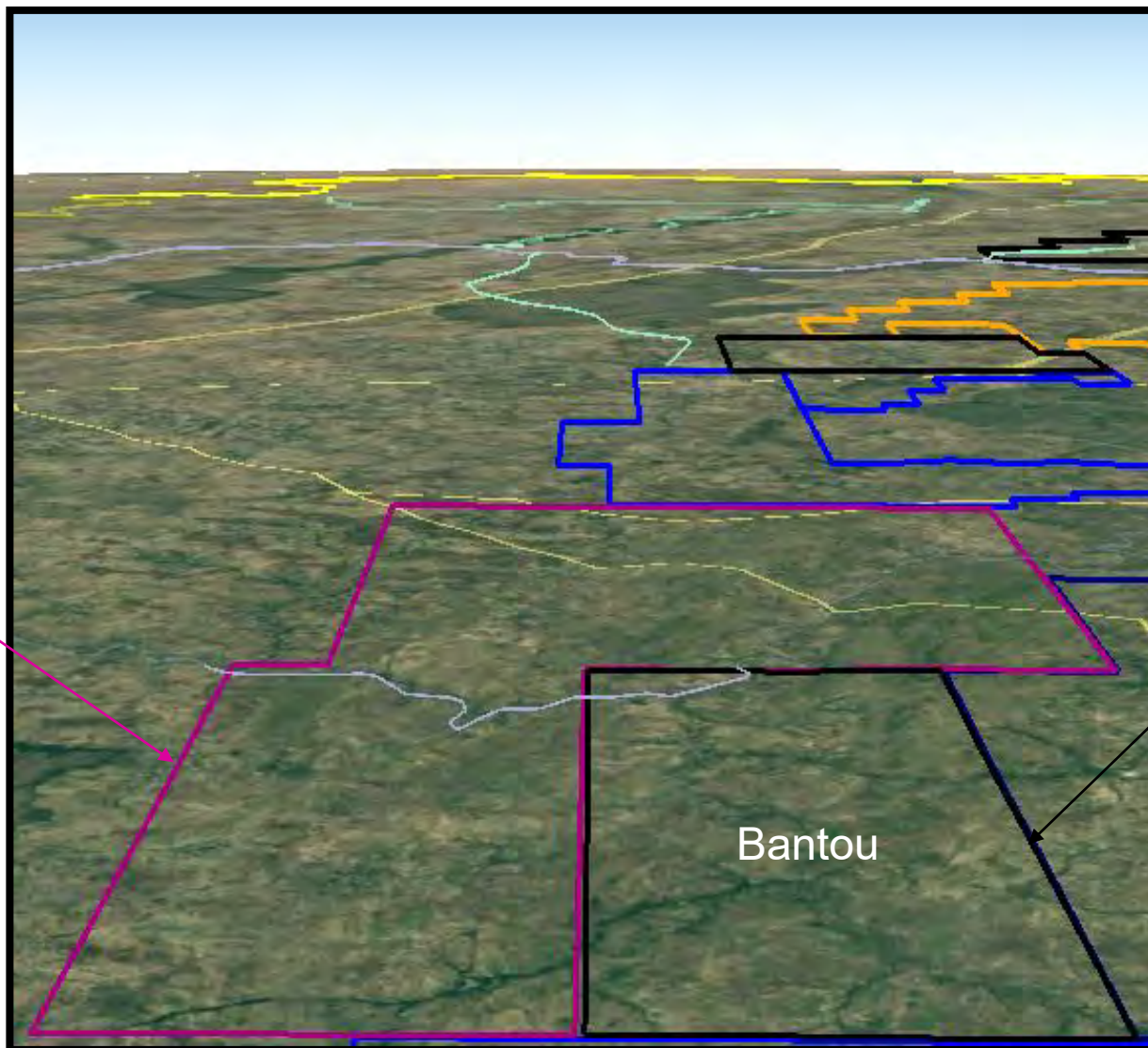
Current Interpretation (grade * thickness)



2018 Drill Program Along Strike and at Depth (>200m)



2018 BANTOU EXPLORATION PROGRAM



\$2M
Investment

\$3M
SEMAFO
Exploration
Budget

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MANA RESERVES AND RESOURCES

As at December 31, 2017



	DEPOSITS	DECEMBER 31, 2017								
		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	6,062,000	2.33	453,500	6,280,000	2.22	448,900	12,342,000	2.27	902,400
	NYAFÉ	265,000	5.81	49,600	6,000	3.96	700	271,000	5.77	50,300
	FOFINA	33,000	4.66	4,900	3,000	3.94	300	36,000	4.49	5,200
	SIOU OP	1,400,000	3.78	170,200	179,000	1.92	11,000	1,579,000	3.57	181,200
	SIOU UG	1,047,000	5.10	171,600	1,988,000	5.38	344,200	3,035,000	5.29	515,800
	YAMA	-	-	-	651,000	1.75	36,600	651,000	1.75	36,600
	ROMPAD	317,000	1.84	18,800	-	-	-	317,000	1.84	18,800
	TOTAL	9,124,000	2.96	868,600	9,107,000	2.88	841,700	18,231,000	2.92	1,710,300

	DEPOSITS	DECEMBER 31, 2017								
		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	1,331,000	2.05	87,800	21,623,000	2.55	1 775,600	22,954,000	2.52	1,863,400
	NYAFÉ	286,000	3.94	36,300	223,000	5.97	42,700	509,000	4.83	79,000
	FOFINA	293,000	4.25	40,000	253,000	4.45	36,100	546,000	4.34	76,100
	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 OP	67,000	0.63	1,400	56,000	0.65	1,200	123,000	0.66	2,600
	SIOU UG	513,000	3.23	53,200	787,000	3.25	82,300	1,300,000	3.24	135,500
	YAMA	-	-	-	99,000	1.56	4,900	99,000	1.54	4,900
	TOTAL	8,723,000	1.49	416,600	34,800,000	2.04	2,280,200	43,523,000	1.93	2,696,800



MANA RESERVES AND RESOURCES (CONT'D)

As at December 31, 2017



	DEPOSITS	DECEMBER 31, 2017		
		INFERRED		
		Tonnage	Grade (g/t Au)	Ounces ⁴
MANA^{1,2,3}	WONA-KONA	3,466,000	2.96	329,600
	NYAFÉ	151,000	5.87	28,400
	FOFINA	67,000	4.20	9,100
	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	2,093,000	3.86	259,900
	YAMA	58,000	1.33	2,500
	TOTAL	9,270,000	2.68	799,100

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 \$1,200 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.



CONSOLIDATED RESERVES AND RESOURCES



PROPERTY	Mana ^{1,2,4,5,6}	Tapoa ^{1,2,4,5,6} (Boungou Mine)	Yactibo ^{1,3,4,5,7} (Nabanga Project)	Total
MINERAL RESERVES				
Proven				
Tonnes	9,124,000	1,584,000	-	10,708,000
Grade (g/t Au)	2.96	6.45	-	3.48
Ounces	868,600	329,000	-	1,197,600
Probable				
Tonnes	9,107,000	9,611,000	-	18,718,000
Grade (g/t Au)	2.88	3.72	-	3.31
Ounces	841,700	1,150,000	-	1,991,700
TOTAL MINERAL RESERVES				
Tonnes	18,231,000	11,195,000	-	29,426,000
Grade (g/t Au)	2.92	4.11	-	3.37
Ounces	1,710,300	1,479,000	-	3,189,300
MINERAL RESOURCES (exclusive of reserves)				
Measured				
Tonnes	8,723,000	62,000	-	8,785,000
Grade (g/t Au)	1.49	1.86	-	1.49
Ounces	416,600	4,000	-	420,600
Indicated				
Tonnes	34,800,000	4,768,000	-	39,568,000
Grade (g/t Au)	2.04	2.66	-	2.11
Ounces	2,280,200	408,000	-	2,688,200
TOTAL M&I				
Tonnes	43,523,000	4,830,000	-	48,353,000
Grade (g/t Au)	1.93	2.65	-	2.00
Ounces	2,696,800	412,000	-	3,108,800
Inferred				
Tonnes	9,270,000	855,000	1,840,000	11,965,000
Grade (g/t Au)	2.68	2.08	10.00	3.76
Ounces	799,100	57,000	590,000	1,446,100

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 (Boungou Mine) were estimated using a gold price of \$1,200 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, 2017.

⁷ As of June 30, 2015.



MANA LOM PLAN



	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL LOM
SIUO UG									
Ore processed (t)	-	65 000	654 000	704 000	704 000	705 000	204 000	-	3 036 000
Head grade (g/t)	-	5,23	5,61	4,97	5,34	5,35	4,92	-	5,29
Recovery (%)	96%	96%	96%	96%	96%	96%	96%	-	96%
Gold recovered (oz)	-	10 531	113 206	107 953	116 055	116 450	31 041	-	495 237
Cash operating cost per tonne (\$/t) ¹	-	22	106	93	93	81	79	-	90
SIUO									
Waste (t)	12 835 000	15 205 000	-	-	-	-	-	-	28 040 000
Ore processed (t)	711 000	867 000	-	-	-	-	-	-	1 578 000
Head grade (g/t)	3,50	3,63	-	-	-	-	-	-	3,57
Recovery (%)	96%	96%	-	-	-	-	-	-	96%
Gold recovered (oz)	76 734	97 212	-	-	-	-	-	-	173 945
Cash operating cost per tonne (\$/t) ¹	70	68	-	-	-	-	-	-	69
WONA									
Waste (t)	21 126 000	22 566 000	32 189 000	19 822 000	16 602 000	8 050 000	3 203 000	6 286 000	129 844 000
Ore processed (t)	1 411 000	1 277 000	1 646 000	1 683 000	1 683 000	1 698 000	1 337 000	1 606 000	12 341 000
Head grade (g/t)	2,31	2,53	2,31	2,40	2,20	2,20	2,35	1,97	2,27
Recovery (%)	81%	81%	81%	81%	81%	81%	81%	81%	81%
Gold recovered (oz)	85 050	84 047	99 234	105 305	96 553	97 418	81 786	82 371	731 764
Cash operating cost per tonne (\$/t) ¹	60	66	70	52	47	35	30	33	49
Other (Nyafé + Yama + Rompad + Fofina)									
Gold recovered (oz)	19 694	-	-	-	-	-	52 378	-	72 073
MANA CONSOLIDATED									
Waste (t)	34 066 000	37 771 000	32 189 000	19 822 000	16 602 000	8 050 000	14 772 000	6 286 000	169 558 000
Ore processed (t)	2 475 000	2 209 000	2 300 000	2 387 000	2 387 000	2 403 000	2 463 000	1 606 000	18 230 000
Head grade (g/t)	2,62	3,04	3,25	3,16	3,13	3,12	2,78	1,97	2,92
Recovery (%)	87%	89%	88%	88%	89%	89%	75%	81%	86%
Total Gold recovered (oz)	181 478	191 790	212 441	213 258	212 608	213 868	165 205	82 371	1 473 019
Cash operating cost per tonne (\$/t) ¹	63	65	80	64	61	49	41	33	58
Sustaining capital (\$)	10 319 000	8 000 000	18 523 000	13 016 000	7 000 000	3 000 000	3 000 000	-	62 858 000
All-in sustaining cost (\$/oz) ²	968	843	1 004	825	766	614	685	702	809
Initial capital expenditure - Siuo UG	14 496 000	37 175 000	-	-	-	-	-	-	51 671 000

¹ Cash operating cost per tonne is a non-IFRS financial performance measure with no standard definition under IFRS and is calculated using total operating costs related to tonnes processed (which includes capitalized stripping activities) over tonnes processed.

² All-in sustaining cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the total mining operation expenses (which includes capitalized stripping activities), plus sustainable capital expenditures.



BOUNGOU LOM PLAN



	2018 (Pre production)	2018	2019	2020	2021
Bougou					
Waste (t)	13 485 000	6 803 600	24 934 000	24 887 000	25 211 000
Ore processed (t)	180 000	449 000	1 343 000	1 343 200	1 343 200
Head grade (g/t)	1,85	4,87	5,58	5,60	4,99
Recovery (%)	90,1%	93,3%	93,7%	93,7%	93,5%
Total Gold recovered (oz)	9 646	65 592	225 757	226 600	201 486
Cash operating cost per tonne (\$/t) ¹		75	67	66	76
Sustaining capital (\$)		2 758 000	3 992 000	3 892 000	4 000 000
All-in sustaining cost (\$/oz)²		555	419	405	527

	2022	2023	2024	2025	2026	TOTAL LOM
						Bougou
Waste (t)	26 499 000	21 872 000	20 457 000	649 000		164 797 600
Ore processed (t)	1 343 200	1 343 200	1 343 200	1 343 200	1 163 800	11 195 000
Head grade (g/t)	4,61	4,46	3,00	2,10	2,00	4,11
Recovery (%)	93,5%	93,5%	91,0%	91,0%	89,6%	92,9%
Total Gold recovered (oz)	186 142	180 086	117 895	82 527	67 051	1 362 783
Cash operating cost per tonne (\$/t) ¹	81	81	79	52	38	66
Sustaining capital (\$)	4 000 000	4 000 000	4 000 000	4 000 000	4 000 000	34 642 000
All-in sustaining cost (\$/oz)²	606	626	934	895	719	570



MANA PFS TECHNICAL OVERVIEW



- Portal (5.5m x 5.5m) and ramp (14°slope) located at the bottom of the Siou pit
- 2,000 tpd will require working 3-6 stopes per month depending on size and width of stopes
- Underground size will eventually be 600m length by 200m depth with 25m between levels
- Two types of long hole mining will be used
 - 80% Transversal long hole mining for stopes wider than 10m
 - 20% Longitudinal long hole mining for stopes smaller than 10m
- Backfill for primary stopes are 4% cemented rockfill and secondary stopes are filled with only waste rock
- Golder qualifies rock conditions as good to very good
- Power will be 11kVA diesel Genset





DEBT SUMMARY

Simple, Low Cost Debt



Main Economic Terms

- Macquarie is the debt holder
- Annual interest at LIBOR + 4.75%
- The debt can be repaid in whole or in part at any time, without penalty
- One payment of \$15M is held on a reserve account and accounted for as restricted cash
- No other restrictive covenants like cash sweeps, hedges, etc.

Principal Repayments

Repayment Date	Amount US\$M
Mar 31, 2019	\$15M
Jun 30, 2019	\$15M
Sep 30, 2019	\$15M
Dec 31, 2019	\$15M
Mar 31, 2020	\$15M
Jun 30, 2020	\$15M
Sep 30, 2020	\$15M
Dec 31, 2020	\$15M
	\$120M



MANAGEMENT TEAM



Corporate



Benoit Desormeaux
CEO & Director
20+ years at SEMAFO



Martin Milette
CFO
20+ years experience,
including 12 at SEMAFO



John Jentz
VP Corporate Development & IR
20+ years experience
including 15 covering West Africa

Operations / Construction



Patrick Moryoussef
VP Mining Operations
25+ years experience,
including 14 at SEMAFO



Sylvain Duchesne
VP Construction & Engineering
25+ years experience,
including 14 at SEMAFO

Geology



Michel Crevier
VP Exploration & Mine Geology
35 years experience,
including 12 at SEMAFO



Richard Roy
Exploration Manager
30 years experience,
including 8 at SEMAFO



SEMAFO FOUNDATION

Working in Partnership with Local Communities



SHEA PROJECT



SESAME PROJECT



BEEKEEPING PROJECT



PAPRIKA PROJECT



MARKET GARDENING



EDUCATION INVESTMENT



SCHOOL KITS



SCHOOL LUNCH



See www.fondationsemafo.com for details

**Trommel screen installation
Boungou Mine, February 2018**



Milling tower
Boungou Mine, February 2018



**Piping installation at CIP tanks
Boungou Mine, February 2018**





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