

## ENDEAVOUR TO LAUNCH EXPANSION OF SABODALA-MASSAWA; DFS CONFIRMS ITS POTENTIAL TO BECOME TOP TIER GOLD MINE

### HIGHLIGHTS:

- Robust DFS economics support the expansion of Sabodala-Massawa by supplementing the current 4.2Mtpa CIL plant with a 1.2Mtpa BIOX<sup>®</sup> plant to process the high-grade refractory ore from the Massawa deposits
- Expansion is expected to yield incremental production of 1.35Moz at a low AISC of \$576/oz over the life of the BIOX<sup>®</sup> Expansion Project
- Lifts Sabodala-Massawa to top tier status with an expected average annual production of 373koz per year over the next 5 years at an average AISC of \$745/oz
- Low-capex intensive brownfield expansion given upfront capital requirement of \$290m, expected to be self funded by the existing Sabodala-Massawa operation
- Robust after-tax IRR of 72% and NPV<sub>5%</sub> of \$861m with a quick 1.4-year payback period, as the expansion generates \$200m of incremental annual free cash flow during its first 5 years, at \$1,700/oz gold
- Construction will commence in Q2-2022 with first gold pour from the BIOX<sup>®</sup> plant expected in early 2024
- Significant upside potential as the DFS does not include the conversion of the previously announced discovery of 709koz of M&I resources
- Endeavour remains on track to discover its target of 2.3Moz to 2.7Moz of Indicated resources at Sabodala-Massawa over the 2021-2025 period

**London, 4 April, 2022** Endeavour Mining plc (LSE:EDV, TSX:EDV, OTCQX:EDVMF) ("Endeavour" or the "Group" or the "Company") is pleased to announce that it will soon launch the construction of its Sabodala-Massawa expansion in Senegal, supported by the recently completed Definitive-Feasibility Study ("DFS").

The DFS recommends the expansion of the Sabodala-Massawa complex by supplementing the current 4.2Mtpa Carbon-in-leach ("CIL") plant with a 1.2Mtpa BIOX<sup>®</sup> plant to process the high-grade refractory ores from the Massawa Central Zone and Massawa North Zone deposits ("Expansion Project"), with first gold production expected in early 2024.

Sébastien de Montessus, President and CEO of Endeavour Mining, said: *"We are extremely pleased with both the current performance of Sabodala-Massawa and the Definitive Feasibility Study results announced today, as they demonstrate the asset's potential to be a top tier mine capable of producing in excess of 400,000 ounces per year at an industry-leading AISC."*

*Given the robust project economics, which significantly exceed our investment criteria, and the strong exploration upside potential, we are excited to launch this low-capex intensive brownfield expansion project as it will continue to improve the quality of our operating portfolio and contribute to driving the Group's return on capital employed above our 20% target. In line with our capital allocation framework, we are very pleased to be able to pursue this organic growth opportunity while maintaining a healthy balance sheet and the financial flexibility to continue to deliver strong capital returns to shareholders.*

*We believe we are well positioned to unlock the full value of the Sabodala-Massawa complex as we have significantly de-risked the project by integrating key changes into the DFS, based on experience gained from operating the asset and the results of further technical analysis, and we have highly experienced operating and construction teams already in place."*

As shown in Tables 1 and 2 below, the Expansion Project is expected to yield an incremental production of 1.35Moz of gold at a low AISC of \$576/oz over the life of mine and boasts robust economics with an after-tax IRR of 72%, NPV<sub>5%</sub> of \$861 million and a quick 1.4-year payback period at a gold price of \$1,700/oz.

**Table 1: Sabodala-Massawa Expansion Project Highlights (excludes current CIL operation)**

	FIRST FIVE YEARS (2024-2028)	LIFE OF MINE (2024-2033)
<b>OPERATING SUMMARY</b>		
Tonnes processed, Mt	5.7	10.8
Strip ratio, W:O	7.7	8.5
Grade processed, Au g/t	6.07	4.43
Gold contained processed, koz	1,110	1,538
Average recovery rate, %	86	88
Gold production, koz	971	1,350
<b>ANNUAL OPERATING METRICS</b>		
Average annual production, koz/a	194	135
Average Total Cash Costs, \$/oz	504	553
Average AISC, \$/oz	531	576
<b>MINE FREE CASH FLOW</b>		
<b>Based on \$1,500/oz gold price</b>		
Total mine free cash flow, \$m	743	1,018
Annual mine free cash flow, \$m	149	102
<b>Based on \$1,700/oz gold price</b>		
Total mine free cash flow, \$m	999	1,439
Annual mine free cash flow, \$m	200	144

**Table 2: Sabodala-Massawa Expansion Project Economics (excludes current CIL operation)**

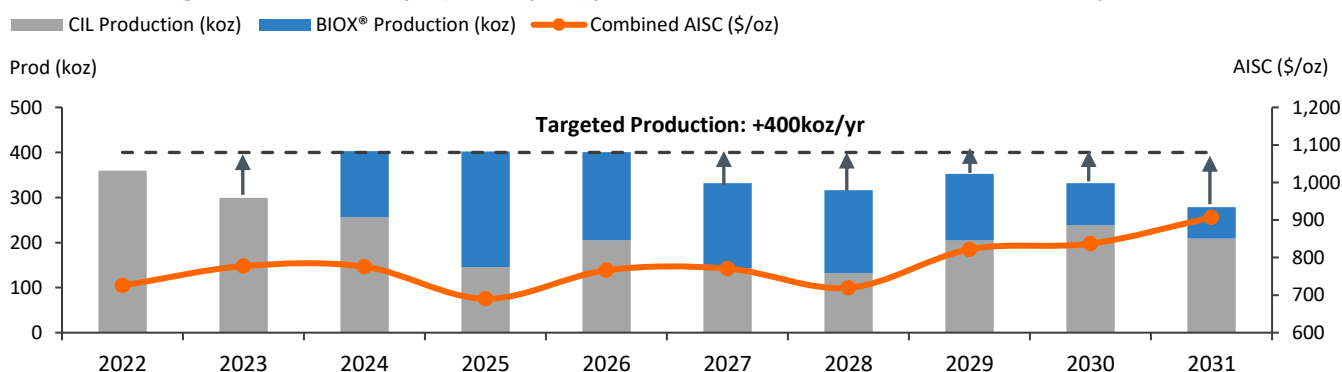
GOLD PRICE	\$1,300/oz	\$1,500/oz	\$1,700/oz	\$1,900/oz
<b>PRE-TAX ECONOMICS</b>				
NPV <sub>0%</sub> , \$m	385	957	1,530	2,102
NPV <sub>5%</sub> , \$m	260	696	1,132	1,568
IRR, %	28	57	83	108
Payback years <sup>1</sup>	2.6	1.7	1.3	1.1
<b>AFTER-TAX ECONOMICS</b>				
NPV <sub>0%</sub> , \$m	316	742	1,164	1,585
NPV <sub>5%</sub> , \$m	211	538	861	1,184
IRR, %	26	51	72	94
Payback years <sup>1</sup>	2.6	1.7	1.4	1.1

<sup>1</sup>Payback period calculated starting from start of commercial production

As shown in Figure 1 below, the Expansion Project is expected to add an incremental average production of 194koz per year, over its first five years of operations (2024 – 2028) at an average AISC of \$531/oz. As such, the Expansion Project is expected to lift the Sabodala-Massawa complex to top tier status with an expected average annual production of 373koz per year over the next 5 years at an average AISC of \$745/oz for the combined CIL and BIOX<sup>®</sup> operation, as shown in Table 3 below.

Strong upside potential exists as the DFS does not include the conversion of the previously announced discovery of 709koz of M&I resources, which is expected to notably boost 2023 production.

**Figure 1: Production Profile (next 10 years) for Sabodala-Massawa Combined CIL and BIOX<sup>®</sup> Operation**



**Table 3: Sabodala-Massawa Combined CIL and BIOX® Operation Summary**

	NEXT 5 YEARS (2022-2026)	NEXT 10 YEARS (2022-2031)	LIFE OF MINE (2022-2036)
<b>PRODUCTION SUMMARY</b>			
Tonnes processed, Mt	24.3	51.0	66.4
Strip ratio, W:O	7.5	7.4	6.7
Grade processed, Au g/t	2.71	2.39	2.08
Gold contained processed, koz	2,117	3,913	4,440
Average recovery rate, %	88	89	89
Total gold production, koz	1,865	3,475	3,945
Average annual production, koz/a	373	347	282
<b>COST SUMMARY</b>			
Average Total Cash Costs, \$/oz	630	693	747
Average All-In-Sustaining Costs, \$/oz	745	775	825
<b>FINANCIAL SUMMARY</b>			
Mine free cash flow at \$1,500/oz, \$m	698	1,473	1,489
Mine free cash flow at \$1,700/oz, \$m	966	1,956	2,029

As shown in Table 4 below, the mine is capable of self-funding the Expansion Project given the robust cumulative cash flow expected to be generated from the existing CIL operation in 2022 and 2023.

**Table 4: Sabodala-Massawa Combined CIL and BIOX® Operation – Next 5 years profile**

	2022	2023	2024	2025	2026	TOTAL (2022-2026)	AVERAGE (2022-2026)
<b>OPERATING SUMMARY</b>							
Tonnes processed, Mt	4.2	4.5	5.0	5.3	5.3	24.3	4.9
Strip ratio, W:O	8.2	9.5	4.9	9.3	4.9	7.5	7.5
Grade processed, Au g/t	3.00	2.37	2.90	2.69	2.61	2.71	2.71
Gold contained processed, koz	409	343	463	454	448	2,117	423
Average recovery rate, %	88	87	87	89	89	88	88
Gold production, koz	360	299	403	402	401	1,865	373
Total Cash Costs, \$/oz	605	651	601	618	680	630	630
AISC, \$/oz	725	777	776	690	766	745	745
<b>FREE CASH FLOW (including expansion capex)</b>							
Based on \$1,500/oz gold price	30	(42)	221	238	251	698	140
Based on \$1,700/oz gold price	89	(4)	281	294	306	966	193

Leveraging Endeavour’s construction and operating experience, several key changes have been incorporated in the DFS, compared to Teranga’s 2020 PFS, to significantly de-risk the project, as summarized in Table 5 below.

*Table 5: Key Changes in DFS vs. PFS*

AREA	DESCRIPTION OF CHANGE	EXPECTED RESULT
Geometallurgical	Additional geometallurgical work has reclassified fresh and transitional ore from the Massawa Central Zone and Massawa North Zone as more amenable to processing through the refractory plant adding an additional 3.8Mt at 2.02g/t gold for 248koz into the refractory ore reserves	Removes risk associated with blending transitional and fresh ore with oxide ore into the CIL circuit. Improves mining efficiency due to lower need for selective mining. Improves overall recoveries and provides supplemental ore feed into the BIOX® plant.
	Addition of a standalone ROM pad and crusher	Reduces the risk of cross-contamination and improves blending optionality
Processing	Addition of a surge bin	Improves capacity when processing softer ore and provides a supplemental feed to cover crusher outages
	Addition of a gravity circuit within the milling circuit	Improves recoveries from the high-grade ores containing free-milling gold
	Addition of a flotation cleaner circuit	Controls the sulphur and carbonate grades in the concentrate and manages acid consumption in the BIOX® circuit
	Reduced the number of BIOX® reactors from nine to seven following further metallurgical tests which showed lower sulphur content for the Massawa Central Zone and North Zone deposits	Reduced BIOX® reactors and reduced associated blower air and cooling requirements reduced the upfront cost of the BIOX® circuit component
Tailings	Addition of a separate high-density polyethylene (“HDPE”) fully lined tailings storage facility (“TSF 1B”) into the initial scope which will host the neutralised product and the BIOX® CIL tailings while the existing tailings storage facility (“TSF 1”) will host the flotation tailings	Allows the clean supernatant water from TSF 1 to be recirculated into either processing plant without treatment
Infrastructure	18MW expansion of the existing HFO power plant, adding three 6MW HFO generators and two back up diesel generators, with the option to add-in solar to the infrastructure in the future	De-risks power supply by increasing the capacity of the existing power plant by 50% to ensure sufficient power supply and back-up supply to maintain stable conditions for the BIOX® reactors
	Additional infrastructure including roads, water and administrative buildings	Improves access and infrastructure at the Massawa Central Zone and Massawa North Zone pits
Construction management	Endeavour managed EPCM compared to contracted 3rd-party	Allows for flexibility in defining scope, contractor selection and procurement ensuring that the projects’ team leverages off the existing operation

## DEFINITIVE-FEASIBILITY STUDY DETAILS

### Background

Endeavour acquired the Sabodala-Massawa mine from Teranga Gold on 10 February 2021, prior to which Teranga Gold acquired the Massawa project from Barrick Gold on 4 March 2020, combining the Sabodala mill and deposits with the nearby Massawa deposits. As such, the Sabodala-Massawa mine consists of two mining licenses, the Sabodala exploitation permit (“Sabodala licence”) and the Massawa exploitation permit (“Massawa licence”) and two further exploration permits. The Sabodala licence is held by Sabodala Gold Operations SA (“SGO”) while the Massawa license is held by Massawa SA (“Massawa”). Endeavour holds indirectly through its subsidiaries a 90 percent stake in each of SGO and Massawa with the Government of Senegal holding the remaining interest.

In August 2020, Teranga Gold filed a Preliminary Feasibility Study (“PFS”) for the phased expansion of Sabodala-Massawa. In 2021, Endeavour expedited the completion of the initial upgrades at the existing Sabodala-Massawa CIL plant and simultaneously advanced the DFS for the addition of a refractory ore processing plant to confirm the economic viability of processing the high-grade refractory ores from the Massawa Central Zone and Massawa North Zone deposits.

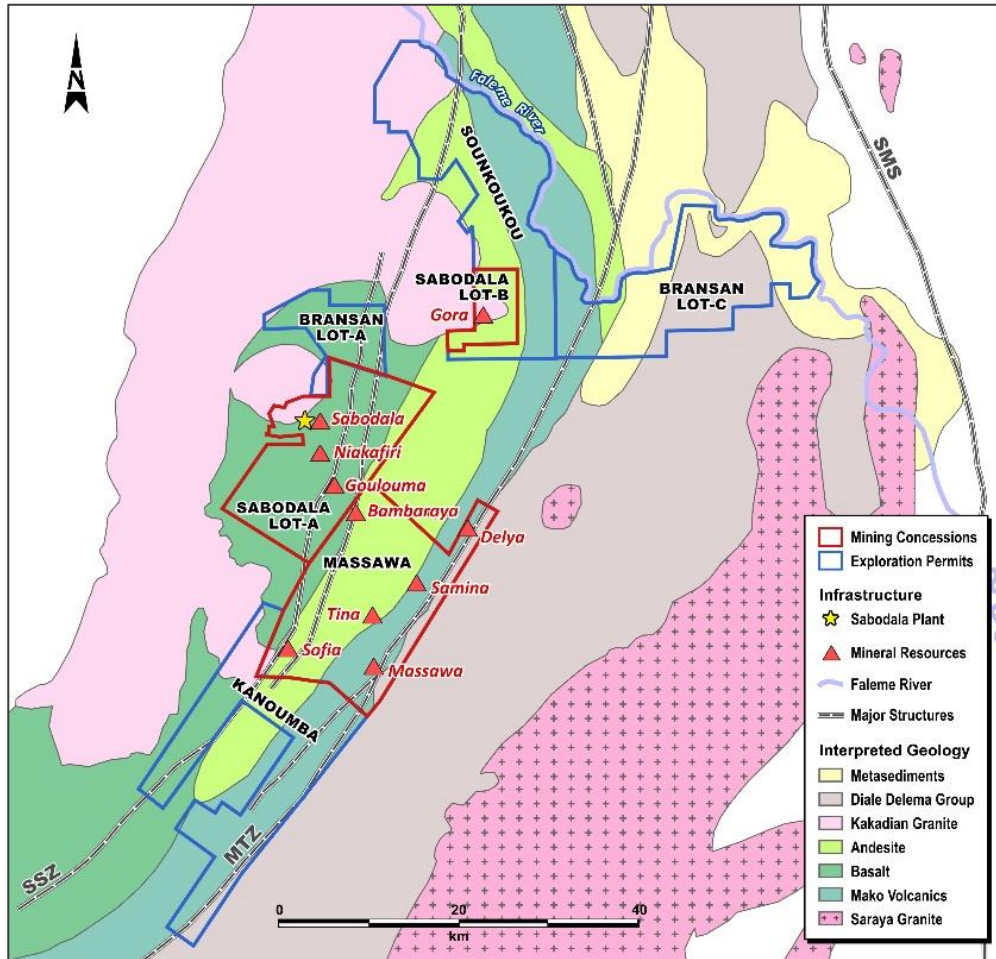
Lycopodium Minerals Pty Ltd (“Lycopodium”) was responsible for the compilation of the report and delivery of the DFS to Endeavour. Orelogy completed the mine design for the DFS. Minescope Services are consulting on the Process Plant, while Metso-Outotec, who own the BIOX® technology, are providing the BIOX® and milling technology. Land and Marine Geological Services Pty Ltd (“L&MG SPL”) will be designing and executing the Tailings Storage Facility (“TSF”) design. QGE Pty Ltd (“QGE”) will be providing the power station expansion engineering services and managing the delivery of the power station expansion by an Original Equipment Manufacturer on a lump sum turn key basis.

Endeavour expects to file a Technical Report pursuant to National Instrument 43-101 – Standards of Disclosure for Mineral Projects in respect of the Sabodala-Massawa DFS within the following 45-day period.

## Geology

At the Sabodala-Massawa Complex, all of the defined mineral resources are within the Sabodala and Massawa exploitation permit areas. The permit areas are transected by two prominent, first order shear zones, the Main Transcurrent Shear Zone (“MTZ”) and the Sabodala-Sofia Zone (“SSZ”) both trending north-northeast. Existing deposits and exploration targets are closely associated with these first order structures.

Figure 2: Sabodala-Massawa Geology Map



Within the Sabodala licence, lithologies generally trend north-northeast to northeast with steep dips. The sequence is dominated by mafic volcanics, with intercalated interflow sediment horizons.

On the Massawa licence, the stratigraphy is dominated by a package of volcanoclastic rocks to the west, and a package of greywackes to the east. Bedding typically strikes to the north-northeast with a steep dip of between 75° to 80° toward the west. Several igneous rocks including sills of gabbro, felsic intrusions, and feldspar (and/or quartz-feldspar) porphyries intrude this dominantly clastic sequence.

The deposits at the Sabodala-Massawa Complex are classified as orogenic gold deposits. The mineralisation is often associated with quartz shear veins, extension vein arrays, shear zones, and disseminated sulphides. Mineralisation is typically associated with greenschist metamorphic grade and vein dominated styles. The typical mineralogy of the gold-bearing mineralisation is quartz-carbonate ± albite ± K-feldspar veins with up to 10% (pyrite ± arsenopyrite ± base metals) sulphides. Alteration assemblages are typically dominated by iron-rich carbonate, albite, chlorite, scheelite, fuchsite and tourmaline. High grades are more commonly associated with high strain environments, and with the presence of arsenopyrite. The continuity of the gold grade is associated with alteration style, deformation intensity, and the presence of intrusive contacts. Gold is often hosted in brecciated zones, along with extensional and shear veins. Typically, moderate to strong silica-carbonate alteration and sulphides are present.



## Reserves and Resources

As shown in Table 6 below, the mineral reserves and resources for the Sabodala-Massawa complex (Combined CIL and BIOX<sup>®</sup> operation) stand at 4.44Moz and 6.88Moz respectively. The current resource to reserve conversion ratio is temporarily low, at 65%, as the previously announced discovery of 709koz of M&I resources are yet to be reflected in Reserves.

**Table 6: Sabodala-Massawa (Combined CIL and BIOX<sup>®</sup> Operation) Mineral Reserves and Resources**

On a 100% basis. M&I Resources shown inclusive of Reserves.	Tonnage (Mt)	Grade (Au g/t)	Content (Au Moz)
Proven Reserves	19.9	1.36	0.87
Probable Reserves	46.5	2.39	3.57
<b>P&amp;P Reserves</b>	<b>66.4</b>	<b>2.08</b>	<b>4.44</b>
Measured Resources (incl. reserves)	21.2	1.32	0.90
Indicated Resources (incl. reserves)	88.9	2.09	5.98
<b>M&amp;I Resources (incl. reserves)</b>	<b>110.1</b>	<b>1.94</b>	<b>6.88</b>
Inferred Resources	24.3	2.16	1.68

The mineral Reserves and Resources were estimated as at 31 December 2021 in accordance with the provisions adopted by the Canadian Institute of Mining Metallurgy and Petroleum (CIM) and incorporated into the NI 43-101. Reported tonnage and grade figures have been rounded from raw estimates to reflect the relative accuracy of the estimate. Minor variations may occur during the addition of rounded numbers. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Resources were constrained by MII Pit Shell and based on an open-pit cut-off of grade range of 0.50 g/t Au to 1.00 g/t Au and an Underground cut-off grade range of 2.00g/t Au to 2.84 g/t Au. Reserves are based on a gold price of \$1,300/oz and resources are based on a gold price of \$1,500/oz.

The DFS economics for the Expansion Project is based on the refractory ore reserves, which represent 35% of the mine's reserves, as detailed in Table 7 below.

**Table 7: Sabodala-Massawa (Combined CIL and BIOX<sup>®</sup> Operation) Mineral Reserves by Ore Type**

On a 100% Basis		OXIDE			TRANSITIONAL			FRESH			TOTAL
		Tonnage (Mt)	Grade (g/t)	Content (Au koz)	Tonnage (Mt)	Grade (g/t)	Content (Au koz)	Tonnage (Mt)	Grade (g/t)	Content (Au koz)	Au Content (Au koz)
<b>Whole Ore Leach</b>	Proven Reserves	1.2	2.55	99	0.8	1.89	47	6.7	1.76	382	529
	Probable Reserves	7.8	1.95	488	4.0	1.83	236	22.0	1.39	983	1,708
	<b>P&amp;P Reserves</b>	<b>9.0</b>	<b>2.03</b>	<b>588</b>	<b>4.8</b>	<b>1.84</b>	<b>283</b>	<b>28.8</b>	<b>1.48</b>	<b>1,366</b>	<b>2,236</b>
<b>Refractory Ore</b>	Proven Reserves	-	-	-	0.1	5.56	14	0.0	2.83	1	15
	Probable Reserves	-	-	-	1.5	4.18	198	9.2	4.46	1,325	1,523
	<b>P&amp;P Reserves</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.6</b>	<b>4.25</b>	<b>212</b>	<b>9.3</b>	<b>4.46</b>	<b>1,326</b>	<b>1,538</b>
<b>Underground Ore</b>	Proven Reserves	-	-	-	-	-	-	-	-	-	-
	Probable Reserves	-	-	-	-	-	-	2.0	5.33	343	343
	<b>P&amp;P Reserves</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.4</b>	<b>5.33</b>	<b>242</b>	<b>242</b>
<b>Stockpiled Ore</b>	Proven Reserves	4.4	0.87	124	-	-	-	6.6	0.93	198	323
	Probable Reserves	-	-	-	-	-	-	-	-	-	-
	<b>P&amp;P Reserves</b>	<b>4.4</b>	<b>0.87</b>	<b>124</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.6</b>	<b>0.93</b>	<b>198</b>	<b>323</b>
<b>Total</b>	Proven Reserves	5.6	1.23	224	0.9	2.23	61	13.4	1.35	582	866
	Probable Reserves	7.8	1.95	488	5.5	2.46	434	33.3	2.48	2651	3,574
	<b>P&amp;P Reserves</b>	<b>13.4</b>	<b>1.65</b>	<b>712</b>	<b>6.3</b>	<b>2.43</b>	<b>495</b>	<b>46.6</b>	<b>2.16</b>	<b>3,233</b>	<b>4,440</b>

The mineral Reserves and Resources were estimated as at 31 December 2021 in accordance with the provisions adopted by the Canadian Institute of Mining Metallurgy and Petroleum (CIM) and incorporated into the NI 43-101. Reported tonnage and grade figures have been rounded from raw estimates to reflect the relative accuracy of the estimate. Minor variations may occur during the addition of rounded numbers. Reserves are based on a gold price of \$1,300/oz.

Compared to the PFS, additional geometallurgical work has reclassified 3.8Mt at 2.02g/t gold for 248koz of fresh and transitional ore from the Massawa Central Zone and Massawa North Zone as refractory ore reserves, given it is more amenable to processing through the refractory plant. This removes the risk associated with blending transitional and fresh ore with oxide ore into the CIL circuit, improves mining efficiency due to lower need for selective mining and improves the overall recoveries.

## Mining operations

At the Sabodala-Massawa complex the open pit mining method used is conventional drill and blast, truck and shovel and is conducted with Endeavour's own fleet. The current fleet includes a total of 70 mobile mining equipment units. The mine operates using 10-meter blast benches mined in 5-meter flitches for waste and two 2.5-meter flitches for ore. Open pit mining operations assume selective mining with respect to both weathering type, process route and grade categories. The current mining strategy assumes the selective mining of the higher-grade material to enable separate processing of the high-grade fresh refractory and non-refractory components.

In addition to the open pit mining, underground reserves defined at Sabodala-Massawa will be mined by two 500tpd underground mining operations at the Golouma and Kerekounda deposits located on the Sabodala Licence, with a combined 1,000tpd nominal rate. The selected mining method adopted for the operations will be cut and fill with mining operations projected to commence in 2028 and continue through to depletion in 2033.

All surface ore haulage and supply of explosives is outsourced to a specialist contractor. Grade control drilling is carried out by a combined owner and contractor drilling fleet.

### Processing operations

The process plant at Sabodala has been operating since 2009, processing over 50 million tonnes of free-milling gold ores from the Sabodala property, via a conventional 4.2Mt per annum SABC/CIL circuit since its first production.

Ore from the Massawa property, will be transported approximately 27 to 32km by road to the Sabodala Whole Ore Leach and Refractory ROM pads for subsequent processing. Ore classified as Whole Ore Leach will be processed through the conventional SABC/CIL circuit while Refractory ore will be processed via a 1.2 Mtpa BIOX<sup>®</sup> processing plant, as illustrated in the site layout in Figure 3.

Figure 3: Sabodala-Massawa Expansion Project Site Layout



Refractory ore will be blended on the dedicated ROM pad to optimize the sulphur content before being fed to the crusher. A primary jaw crusher will produce a coarse crushed product which will be supplemented by the use of a surge bin conveyor, together the crusher and the surge bin will feed a crushed ore surge bin which will feed a crushed ore stockpile capable of supporting the mill for upto 16 hours. Ore will be milled through a conventional SABC configuration with a SAG and Ball mill grinding ore down to 90 $\mu$ m. The milled ore will be passed through a gravity circuit to recover any free-milling gold before being floated through a rougher-scavenger-cleaner circuit to produce a sulphide concentrate.

The sulphide concentrate will be ground down to 45 $\mu$ m and then passed through seven BIOX<sup>®</sup> reactors with a minimum retention time of approximately 5.4 days. The resulting oxidised sulphide concentrate will be neutralized and processed through six BIOX<sup>®</sup> CIL tanks in series with a minimum retention time of 36 hours. The BIOX<sup>®</sup> process is a biological oxidation process designed to liberate refractory gold, or gold hosted within the mineral lattice; typically of sulphide minerals. Bacteria oxidise the sulphide minerals exposing occluded gold from within the sulphide minerals allowing the gold to be readily leached by conventional CIL.

Gold will be recovered from loaded carbon in a AARL elution circuit by elution, electrowinning and gold smelting to produce doré. Extensive metallurgical testwork has indicated that overall gold recovery from the refractory ore plant is expected to be over 88% over the life of mine.

### Infrastructure

At the existing Sabodala-Massawa complex, power is provided via a dedicated power station comprising six generators running on Heavy Fuel Oil ("HFO") and rated at 6MW each. In addition, two smaller diesel generators provide back-up capacity. As part of the Expansion Project, an additional three 6MW HFO generators will add 18MW of power capacity to provide sufficient capacity for the refractory plant. A further two 1.6MW diesel generators will

be added as backup capacity. The upgraded power infrastructure is being adapted so that it can be fed by solar power sources in the future.

TSF 1B has been added to the initial scope and will be constructed as part of the Expansion Project. TSF 1B will be a fully HDPE lined storage facility designed to host the neutralised product from the BIOX<sup>®</sup> reactors and the BIOX<sup>®</sup> CIL tailings. It is designed to accommodate a total of 1.0Mt of tailings. The benign tailings from the flotation circuit will be deposited into the existing upstream TSF 1, and the supernatant water from the TSF can continue to be reused in the CIL and Refractory process plants. The TSF is designed to accommodate a total of 49.5Mt of tailings.

### Operating cost summary

Mining operating cost estimates are derived from a combination of current costs achieved by the owner’s team, where possible, and first principles calculations. Processing operating cost estimates were prepared by Lycopodium (BIOX<sup>®</sup> Expansion Project) and Endeavour (existing CIL plant) and General and Administration (“G&A”) cost estimates were prepared by Endeavour, as summarised in the table below.

*Table 8: Sabodala-Massawa Complex Operating Unit Costs*

	UNIT COSTS, \$/t
Open Pit Mining & Rehandling, \$/t mined	2.43
Underground Mining, \$/t mined	76.99
Processing – Whole Ore Leach, \$/t processed	12.43
Processing – Refractory, \$/t processed	33.06
G&A, \$/t processed	5.57

Operating costs have been based on a HFO price of \$0.54 per litre, a delivered diesel price of \$0.90 per litre and generated power cost of \$0.133 KWh and are in line with local pricing. Foreign exchange rates for the Expansion Project have been assumed as follows: EUR:USD of 1.18, USD:XOF of 555, USD:AUD of 1.40 and USD:CAD of 1.30.

A corporate tax rate of 25% of gross profit has been applied in the DFS and a 5% gold royalty is payable on gold production.

### Capital cost summary

The Expansion Project capital cost estimate was compiled with input from Lycopodium Minerals, Orelogy, Metso-Outotec, and QGE with input from L&MG SPL and Endeavour on the TSF. The capital costs have been developed with significant engineering and design and reinforced with Material Take Offs and Budget Quotations from reputable vendors, who Endeavour is familiar with from ongoing operations.

The Expansion Project will be executed through partnership between Endeavour, Engineering, Procurement and Construction Management (“EPCM”) contractors, and Engineering, Procurement and Construction (“EPC”) contractors. Endeavour has successfully executed several builds over the past decade using EPCM, which allows for flexibility in defining scope, contractor selection and procurement ensuring that the projects’ team leverages off the existing operation.

A construction period of up to 24-months is projected with the initial capital cost summarized in the table below, which includes an average contingency of 13%.

*Table 9: Expansion Project Capital Cost Estimate Summary (+15 / -5 %)*

	CAPITAL COSTS, \$M
Treatment Plant	106
Reagents and Services	35
Infrastructure	55
Construction Distributables	27
<b>SUBTOTAL</b>	<b>223</b>
Management Costs	33
Owners Project Costs	34
<b>TOTAL</b>	<b>290</b>

While capital costs increased from \$219 million in the PFS (as published by Teranga) to \$290 million in the DFS, the Expansion Project remains a low-capex intensive brownfield expansion. As shown in the table below, scope additions (which were summarized in the above section) represent an increase of approximately \$37 million while the majority of the \$7 million in savings are associated with self-managing the earthworks using the existing Endeavour team. The cost inflation impact of steel (65% increase) and concrete (50% increase) pricing accounts for an increase of approximately \$33 million.



Table 10: Expansion Project Capital Cost Bridge (PFS vs DFS)

CAPITAL COSTS, \$M	
<b>PFS CAPEX (as published by Teranga)</b>	<b>219</b>
Scope changes and other	+37
Inflationary impact of steel and concrete	+33
Savings	(7)
Import and other taxes (excluded from PFS)	+5
Foreign exchange change	+3
<b>DFS CAPEX</b>	<b>290</b>

A total of \$6 million of capital costs have already been spent on early works, engineering and infrastructure including access roads and drainage given the benefit to the CIL operation as well.

### Environmental Social Impact Assessment

The Environmental Social Impact Assessment (“ESIA”), which includes a cumulative impact assessment for the whole Sabodala-Massawa complex, has been completed and its recommendations will be used to guide Endeavour’s local community engagement as well as to ensure it fulfils its environmental obligations, minimizing the mine’s impacts where possible.

### Timetable to first gold pour

As shown below in Figure 4, early works have already commenced at the Expansion Project with detailed engineering expected to start in Q2-2022. The tailings dam and process plant construction are scheduled to commence later this year and the process plant is scheduled to be completed towards the end of 2023, with the first gold pour expected in early 2024.

Figure 4: Sabodala-Massawa Expansion Timeline

WORKSTREAM	H1-2022	H2-2022	H1-2023	H2-2023	H1-2024
<b>Early Works</b>					
Final Investment Decision and EPCM Award	■				
Detailed Design & Engineering	■	■	■		
Order & Procure Long Lead Items	■	■	■		
<b>Tailings Dam</b>					
TSF 1B Tailings Dam Construction		■	■	■	
<b>Process Plant Construction</b>					
Earthworks	■	■			
Civil Concrete Works	■	■	■		
Power Plant Construction		■	■	■	
Process Plant Construction		■	■	■	
Process Plant Commissioning				■	■
<b>First Gold</b>					★

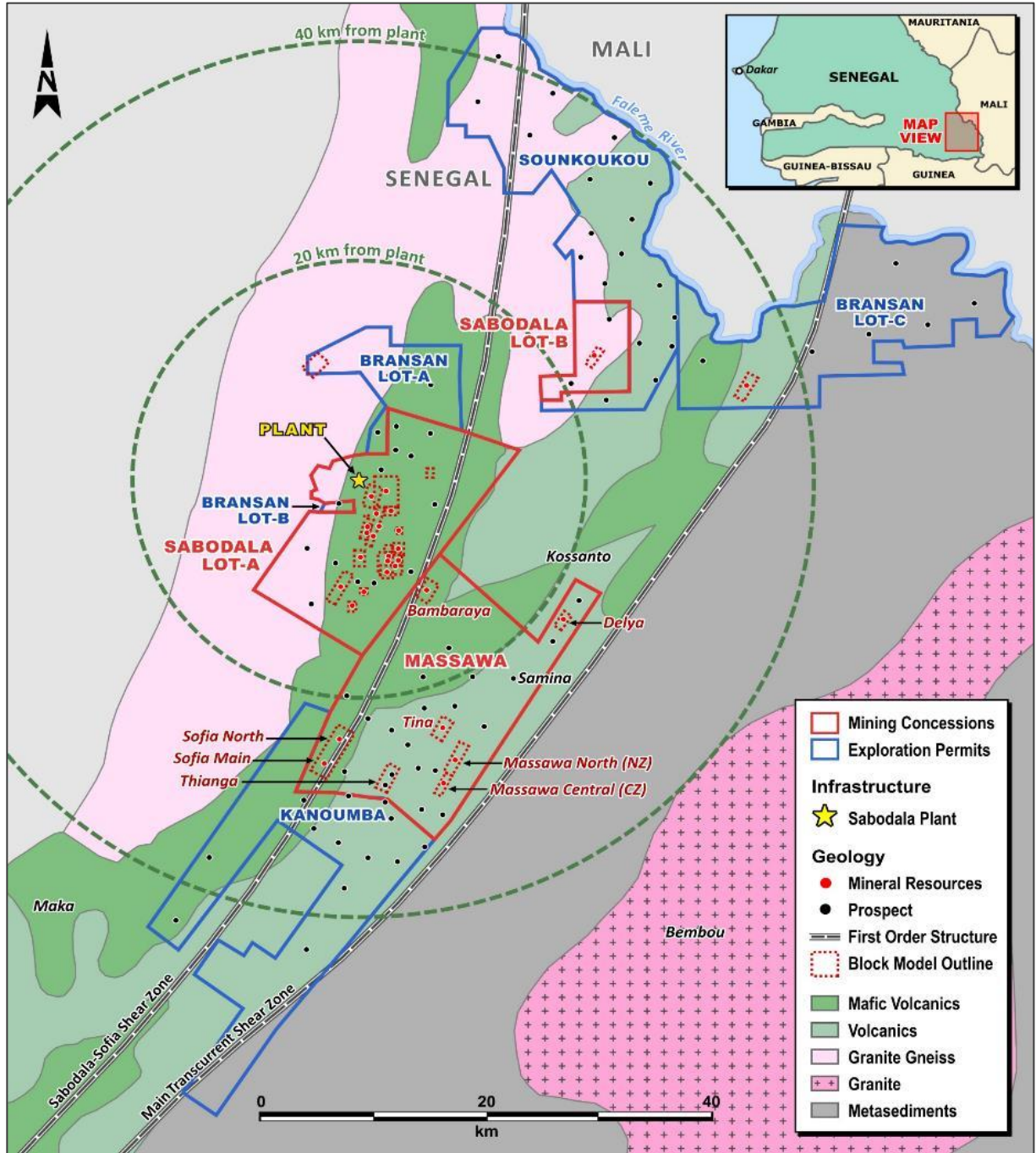
### Exploration upside

The Sabodala-Massawa exploration land package covers 1,240 square kilometres as shown in Figure 5 below. Given its significant exploration potential, Endeavour’s target is to discover between 2.3 and 2.7 million ounces of Indicated resources at a discovery cost of less than \$26/oz during the 2021-2025 period.

During 2021, the exploration programme discovered 709koz of M&I resources and a further 46koz of Inferred resources at the Massawa Central Zone, Massawa North Zone, Sofia, Tina, Samina and Delya deposits.

A \$15 million exploration programme is planned for 2022, with ongoing work on the Massawa permit at Sofia North, Delya, Samina and Tina focussed on expanding pit resources and converting them to reserves. Further exploration work will focus on other Massawa permit targets including Bambaraya, Tiwana, Kawasara and Makana. Reconnaissance drilling is planned on the Niakafiri Extensions and Goumbati Kobokoto targets on the Sabodala permit as well.

Figure 5: Sabodala Massawa Plan Map with Exploration Targets



## QUALIFIED PERSONS

Clinton Bennett, Endeavour's VP Metallurgy and Process Improvement - a Fellow of the Australasian Institute of Mining and Metallurgy, is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and has reviewed and approved the technical information in this news release.

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## ABOUT ENDEAVOUR MINING CORPORATION

*Endeavour Mining is one of the world's senior gold producers and the largest in West Africa, with operating assets across Senegal, Cote d'Ivoire and Burkina Faso and a strong portfolio of advanced development projects and exploration assets in the highly prospective Birimian Greenstone Belt across West Africa.*

*A member of the World Gold Council, Endeavour is committed to the principles of responsible mining and delivering sustainable value to its employees, stakeholders and the communities where it operates. Endeavour is listed on the London Stock Exchange and the Toronto Stock Exchange, under the symbol EDV.*

*For more information, please visit [www.endeavourmining.com](http://www.endeavourmining.com).*

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

*This document contains forward-looking information or forward-looking statements (referred to herein as "forward-looking statements") within the meaning of applicable securities laws. All statements, other than statements of historical fact, are "forward-looking statements", including but not limited to, statements with respect to Endeavour's plans and operating performance, the estimation of mineral reserves and resources, the timing and amount of estimated future production, costs of future production, future capital expenditures, the success of exploration activities, the completion of studies, mine life and any potential extensions, and, the future price of gold. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "expects", "expected", "budgeted", "forecasts", "anticipates", "believes", "plan", "target", "opportunities", "objective", "assume", "intention", "goal", "continue", "estimate", "potential", "strategy", "future", "aim", "may", "will", "can", "could", "would" and similar expressions.*

*Forward-looking statements, while based on management's reasonable estimates, projections and assumptions at the date the statements are made, are subject to risks and uncertainties that may cause actual results to be materially different from those expressed or implied by such forward-looking statements, including but not limited to: risks related to international operations; risks related to general economic conditions and the impact of credit availability on the timing of cash flows and the values of assets and liabilities based on projected future cash flows;; the completion of studies on the timelines currently expected, and the results of those studies being consistent with Endeavour's current expectations; actual results of current exploration activities; production and cost of sales forecasts for Endeavour meeting expectations; unanticipated reclamation expenses; changes in project parameters as plans continue to be refined; fluctuations in prices of metals including gold; fluctuations in foreign currency exchange rates; increases in market prices of mining consumables; possible variations in ore reserves, grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; extreme weather events, natural disasters, supply disruptions, power disruptions, accidents, pit wall slides, labour disputes, title disputes, claims and limitations on insurance coverage and other risks of the mining industry; delays in the completion of development or construction activities; changes in national and local government legislation, regulation of mining operations, tax rules and regulations and changes in the administration of laws, policies and practices in the jurisdictions in which Endeavour operates; disputes, litigation, regulatory proceedings and audits; adverse political and economic developments in countries in which Endeavour operates, including but not limited to acts of war, terrorism, sabotage, civil disturbances, non-renewal of key licenses by government authorities, or the expropriation or nationalization of any of Endeavour's property; risks associated with illegal and artisanal mining; environmental hazards; and risks associated with new diseases, epidemics and pandemics, including the effects and potential effects of the global Covid-19 pandemic.*

*Although Endeavour has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Please refer to Endeavour's most recent Annual Information Form filed under its profile at [www.sedar.com](http://www.sedar.com) for further information respecting the risks affecting Endeavour and its business.*

## SABODALA-MASSAWA PROCESSING SCHEDULE

Item	Unit	LOM Total / Average	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
<b>Processing Schedule - CIL</b>																			
Total Ore Processed	kt	55,581	4,247	4,499	4,098	4,057	4,142	4,227	4,255	4,160	4,032	4,059	4,028	4,000	4,000	1,777	-	-	-
Au Grade	g/t	1.62	3.00	2.37	2.16	1.26	1.71	1.18	1.06	1.70	2.02	1.76	1.11	0.89	0.88	1.35	-	-	-
Contained Gold	koz	2,902	409	343	284	164	228	160	146	227	262	230	143	115	114	77	-	-	-
Au Recovery	%	89.4%	87.9%	87.3%	90.3%	88.4%	90.2%	89.8%	90.6%	90.2%	91.0%	91.0%	90.1%	89.0%	88.5%	89.6%	-	-	-
Recovered Gold	koz	2,595	360	299	256	145	206	144	132	205	238	209	129	102	101	69	-	-	-
<b>Processing Schedule - BIOX</b>																			
Total Ore Processed	kt	10,805	-	-	873	1,202	1,206	1,205	1,204	1,202	1,140	1,201	1,207	365	-	-	-	-	-
Au Grade	g/t	4.43	-	-	6.37	7.50	5.69	5.49	5.37	4.32	2.87	2.03	1.55	1.55	-	-	-	-	-
Contained Gold	koz	1,538	-	-	179	290	221	212	208	167	105	78	60	18	-	-	-	-	-
Au Recovery	%	87.7%	-	-	81.8%	88.6%	88.6%	88.6%	88.5%	88.5%	88.5%	88.3%	88.3%	88.3%	-	-	-	-	-
Recovered Gold	koz	1,350	-	-	146	257	195	188	184	148	93	69	53	16	-	-	-	-	-
<b>Processing Schedule - TOTAL</b>																			
Total Ore Processed	kt	66,386	4,247	4,499	4,971	5,259	5,348	5,431	5,459	5,362	5,172	5,260	5,235	4,365	4,000	1,777	-	-	-
Au Grade	g/t	2.08	3.00	2.37	2.90	2.69	2.61	2.13	2.01	2.28	2.21	1.82	1.21	0.95	0.88	1.35	-	-	-
Contained Gold	koz	4,440	409	343	463	454	448	372	354	394	367	308	204	133	114	77	-	-	-
Au Recovery	%	88.8%	87.9%	87.3%	87.0%	88.6%	89.4%	89.1%	89.3%	89.5%	90.3%	90.3%	89.6%	88.9%	88.5%	89.6%	-	-	-
Recovered Gold	koz	3,945	360	299	403	402	401	332	316	352	332	278	182	118	101	69	-	-	-



## SABODALA-MASSAWA COMPLEX LIFE OF MINE

<i>(At a \$1,500/oz gold price)</i>	Unit	LOM Total / Average	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
<b>Mining Schedule</b>																			
Total Material Moved	kt	427,003	52,498	51,350	50,304	50,723	40,432	39,381	32,584	29,930	24,240	15,548	12,667	12,498	12,346	2,502	-	-	-
Total Waste Moved	kt	371,653	46,814	46,445	41,738	45,811	33,598	35,147	29,723	26,573	18,898	11,727	11,179	12,096	10,723	1,183	-	-	-
Total Ore Mined	kt	55,349	5,684	4,905	8,566	4,912	6,834	4,234	2,861	3,357	5,343	3,821	1,488	402	1,623	1,319	-	-	-
Stripping Ratio	w:o	6.7	8.2	9.5	4.9	9.3	4.9	8.3	10.4	7.9	3.5	3.1	7.5	30.1	6.6	0.9	-	-	-
Au Grade - Ore Mined	g/t	2.31	2.55	3.29	2.18	1.98	2.17	2.70	3.93	2.32	1.75	1.80	1.72	2.58	1.16	1.58	-	-	-
Contained Gold - Ore Mined	koz	4,118	465	519	600	313	477	367	362	250	301	221	82	33	60	67	-	-	-
<b>Processing Schedule</b>																			
Total Ore Processed	kt	66,386	4,247	4,499	4,971	5,259	5,348	5,431	5,459	5,362	5,172	5,260	5,235	4,365	4,000	1,777	-	-	-
Au Grade - Ore Processed	g/t	2.08	3.00	2.37	2.90	2.69	2.61	2.13	2.01	2.28	2.21	1.82	1.21	0.95	0.88	1.35	-	-	-
Contained Gold - Ore Processed	koz	4,440	409	343	463	454	448	372	354	394	367	308	204	133	114	77	-	-	-
Au Recovery	%	88.8%	87.9%	87.3%	87.0%	88.6%	89.4%	89.1%	89.3%	89.5%	90.3%	90.3%	89.6%	88.9%	88.5%	89.6%	-	-	-
Recovered Gold	koz	3,945	360	299	403	402	401	332	316	352	332	278	182	118	101	69	-	-	-
<b>Operating Unit Cost Summary</b>																			
Mining & Rehandling	\$/t Mined	2.78	2.16	2.30	2.37	2.48	2.44	2.38	3.04	3.72	4.07	4.52	4.23	3.44	2.82	3.05	-	-	-
Processing	\$/t Ore Processed	17.00	14.35	15.19	17.61	18.91	18.68	17.87	17.84	17.94	17.87	17.96	17.97	15.10	12.92	12.92	-	-	-
General & Administrative	\$/t Ore Processed	5.57	8.47	7.61	7.29	7.23	7.11	6.65	5.98	5.38	4.81	3.79	3.45	3.28	1.76	2.90	-	-	-
Total Cash Costs	\$/oz Gold Sold	747	605	651	601	618	680	733	682	752	811	865	1,101	1,153	1,359	701	-	-	-
All-In-Sustaining Costs	\$/oz Gold Sold	825	725	777	776	690	766	771	719	822	837	907	1,169	1,176	1,413	750	-	-	-
<b>Operating Cash Flow Summary</b>																			
<b>Gold Revenue (A)</b>	<b>\$M</b>	<b>5,775</b>	<b>528</b>	<b>437</b>	<b>592</b>	<b>592</b>	<b>590</b>	<b>486</b>	<b>462</b>	<b>517</b>	<b>486</b>	<b>406</b>	<b>264</b>	<b>171</b>	<b>143</b>	<b>99</b>	-	-	-
Mining & Rehandling	\$M	(1,187)	(113)	(118)	(119)	(126)	(99)	(94)	(99)	(111)	(99)	(70)	(54)	(43)	(35)	(8)	-	-	-
Processing	\$M	(1,128)	(61)	(68)	(88)	(99)	(100)	(97)	(97)	(96)	(92)	(94)	(94)	(66)	(52)	(23)	-	-	-
General & Administrative	\$M	(369)	(36)	(34)	(36)	(38)	(38)	(36)	(33)	(29)	(25)	(20)	(18)	(14)	(7)	(5)	-	-	-
Other (incl. Inventory Adj, Royalties)	\$M	(260)	(7)	26	1	15	(36)	(16)	13	(29)	(53)	(56)	(35)	(13)	(43)	(13)	(15)	-	-
<b>Subtotal: Total Cash Cost (B)</b>	<b>\$M</b>	<b>(2,945)</b>	<b>(218)</b>	<b>(195)</b>	<b>(242)</b>	<b>(248)</b>	<b>(273)</b>	<b>(243)</b>	<b>(215)</b>	<b>(265)</b>	<b>(269)</b>	<b>(241)</b>	<b>(201)</b>	<b>(136)</b>	<b>(137)</b>	<b>(49)</b>	<b>(15)</b>	-	-
Sustaining Capital	\$M	(308)	(43)	(38)	(70)	(29)	(35)	(13)	(12)	(25)	(9)	(12)	(12)	(3)	(5)	(3)	-	-	-
<b>Subtotal: All-In-Sustaining Costs (C)</b>	<b>\$M</b>	<b>(3,253)</b>	<b>(261)</b>	<b>(232)</b>	<b>(312)</b>	<b>(278)</b>	<b>(307)</b>	<b>(256)</b>	<b>(227)</b>	<b>(290)</b>	<b>(277)</b>	<b>(252)</b>	<b>(213)</b>	<b>(139)</b>	<b>(142)</b>	<b>(52)</b>	<b>(15)</b>	-	-
<b>Sustaining Margin (A-C)</b>	<b>\$M</b>	<b>2,522</b>	<b>267</b>	<b>205</b>	<b>280</b>	<b>314</b>	<b>283</b>	<b>231</b>	<b>235</b>	<b>228</b>	<b>208</b>	<b>154</b>	<b>51</b>	<b>32</b>	<b>2</b>	<b>47</b>	<b>(15)</b>	-	-
Working Capital Movement	\$M	93	10	(14)	(27)	(6)	10	(1)	(7)	8	19	27	25	24	30	(2)	(3)	-	-
Taxes	\$M	(477)	(82)	(46)	(18)	(38)	(33)	(46)	(35)	(44)	(49)	(43)	(32)	(8)	(2)	-	(5)	4	-
<b>FCF Before Non-Sustaining Capital</b>	<b>\$M</b>	<b>2,137</b>	<b>196</b>	<b>145</b>	<b>235</b>	<b>270</b>	<b>259</b>	<b>184</b>	<b>193</b>	<b>192</b>	<b>178</b>	<b>138</b>	<b>44</b>	<b>48</b>	<b>29</b>	<b>45</b>	<b>(23)</b>	<b>4</b>	-
Non-Sustaining Capital	\$M	(358)	(49)	(28)	-	(32)	(8)	(38)	(60)	(9)	(2)	(1)	(9)	(44)	(10)	(68)	-	-	-
Growth Capital	\$M	(290)	(116)	(160)	(15)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Mine Free Cash Flow</b>	<b>\$M</b>	<b>1,489</b>	<b>30</b>	<b>(42)</b>	<b>221</b>	<b>238</b>	<b>251</b>	<b>146</b>	<b>133</b>	<b>183</b>	<b>176</b>	<b>137</b>	<b>35</b>	<b>4</b>	<b>19</b>	<b>(22)</b>	<b>(23)</b>	<b>4</b>	-