



30 March 2020

NEWS RELEASE

PERSEUS MINING UPDATES EDIKAN'S LIFE OF MINE PLAN

Perseus Mining Limited (ASX/TSX: PRU) is pleased to announce details of its updated Life of Mine Plan ("LOMP") for its Edikan Gold Mine in Ghana, West Africa.

EXECUTIVE SUMMARY

- The LOMP covers the period from 1 July 2020 and is based on the Company's revised mining strategy that was implemented in January 2019 involving use of a single mining contractor, mining at a reduced rate of total material movement. Costs, recoveries, mill throughput rates and run times have been updated to reflect recent performance.
- The LOMP is based on the revised Ore Reserves reported on 20 February 2020 which included Proved and Probable Ore Reserves as at 31 December 2019 of 45.7 million tonnes of ore, grading 1.10 g/t gold and containing 1,608 kozs of gold.
- Ore loss and dilution included in the estimate of Ore Reserves is based on recent mine to mill reconciliation results. Comparisons of ore tonnes and grade by Edikan's Mineral Resource models relative to ore tonnes and grade delineated by grade control, indicate that the Mineral Resource estimates on which the Ore Reserves are based are reliable predictors of ore tonnes and grades.
- The Esuajah South Underground mine has been included in the LOMP, employing a sub-level stoping under rock fill ("SURF") mining method. Development capital of US\$31 million has been assumed.
- Gold production averages 212,000 ounces/annum over Edikan's currently estimated mine life of 6.2 years from 1 July 2020, including gold production of approximately 231,000 ounces/annum on average over the next 4 years. The altered production profile relative to the previous LOMP is largely due to the addition of Esuajah South Underground and a significantly larger AG Open Pit.
- Total estimated gold production of 1,307,000 ounces over the life of mine is 95% higher than the amount estimated for the corresponding period in the previous LOMP. The substantial increase is largely due to the addition of Esuajah South Underground and a much larger AG Open Pit.
- Forecast weighted average all-in site costs, including all direct production costs, royalties, waste stripping costs and sustaining capital expenditure ("AISC"), are in the range of US\$870-US\$890 per ounce over the remaining life of mine. This represents a 5% decrease in average AISC relative to the previous LOMP, over the corresponding period. Forecast sustaining capital costs (including the cost of site rehabilitation) of US\$37 million or US\$28 per ounce are included in the AISC estimate.
- Edikan's revised LOMP forecasts strong positive after-tax cash flows totalling approximately US\$356 million (or A\$0.51 per share at an A\$:US\$ exchange rate of 0.60), assuming a flat spot gold price of US\$1,300 per ounce for the remaining mine life.
- The revised LOMP should be read in conjunction with, and added to, previously published production and cost guidance for the Half Year ending 30 June 2020.

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UPDATED LIFE OF MINE PLAN FOR EDIKAN GOLD MINE

1. Overview

The updated LOMP for Edikan involves mining and processing of ore from three open pits and one underground mine (Refer to **Figure 1** below) based on optimisation, design and scheduling using a gold price of US\$1,300 per ounce and input parameters based on Perseus’s operating experience including costs from recently executed supply contracts.

Figure 1: Edikan Gold Mine layout



Based on the LOMP, the key forecast operating statistics for Edikan are summarised below in **Table 1** below.

Table 1: Overview Key Parameters of the updated LOMP

Parameter	Units	Average per year	Total
Ex-Pit Mining		FY21-24 ¹	Life of Mine
Total ore + waste mined	Mt	26.8	114.9
Waste mined	Mt	19.6	81.1
Ore mined	Mt	7.2	33.8 ²
Head grade	g/t gold	1.18	1.20
Strip ratio	t:t	2.7	2.4

Note: 1. Perseus has a financial year that ends on 30 June.

2. The LOMP includes all Ore Reserves that are expected to remain as at 30th June 2020.

Table 1: Overview Key Parameters of the updated LOMP (Continued)

Parameter	Units	Average per year	Total
Processing		FY21-24¹	Life of Mine
Quantity ore processed	Mt	7.2	42.3 ²
Head grade processed	g/t gold	1.15	1.09
Contained gold	'000 ounces	264	1,483
Gold recovery rate	%	87.8	88.2
Gold production	'000 ounces	231	1,307
Operating and Capital Costs			
Average mining costs	US\$/tonne mined	4.38	4.62
Average processing costs	US\$/tonne processed	8.41	8.67
Average general & administration ("G&A") costs	US\$/tonne processed	2.53	2.45
Production costs	US\$/ounce	844	763
Royalty	US\$/ounce	88	88
Sustaining capital	US\$/ounce	<u>19</u>	<u>28</u>
All-in site costs	US\$/ounce	951	879
Development Capital	US\$ Million	31	31

Note: 1. Perseus has a financial year that ends on 30 June. 2. Includes Ore mined ex-pit plus Ore drawn from ROM stockpile and Heap Leach pads. 3. The LOM Plan is based on expected June 2020 face positions.

2. Comparison of Key Parameters relative to the August 2018 Edikan LOMP

The current LOMP differs relative to the prior version of the LOMP released in August 2018, as shown below in **Table 2**.

Table 2: Overview Key Parameters of the updated LOMP

Parameter	Units	2018 LOMP ¹	2020 LOMP ²	% Change
Mining				
Total ore + waste mined	Mt	62.9	114.9	+83
Waste mined	Mt	44.6	81.1	+82
Ore mined	Mt	18.3	33.8	+85
Head grade	g/t gold	1.06	1.20	+13
Strip ratio	t:t	2.4	2.4	-
Processing				
Average quantity ore processed	Mt/year	6.4	6.9	+8
Head grade processed	g/t gold	0.94	1.09	+16
Contained gold	'000 ounces	764	1,483	+94
Gold recovery rate	%	87.7	88.2	+1
Gold production	'000 ounces	670	1,307	+95
Average gold production	'000 ounces/ year	168	212	+26
Operating and Capital Costs				
Average mining costs	US\$/tonne mined	3.86	4.62	+20
Average processing costs	US\$/tonne processed	9.63	8.67	-10
Average Site G&A costs	US\$/tonne processed	2.34	2.45	+5
Production costs	US\$/ounce	813	763	-6
Royalty	US\$/ounce	88	88	-
Sustaining capital	US\$/ounce	23	28	+22
All-in site costs	US\$/ounce	924	879	-5

Notes: 1. FY2019 and FY2020 omitted from 2018 LOMP and gold price changed to \$1,300/oz for comparison purposes 2. LOMP commences 1 July 2020 and ends 31 August 2026. 3. The LOM Plan is based on expected June 2020 face positions.

Mineral Resources and Ore Reserves

The 31 December 2019 global Measured and Indicated Mineral Resource for Edikan forms the basis of the LOMP. It was estimated as 83.3 million tonnes grading at 1.01 g/t gold, containing 2,699 koz of gold as shown in **Table 3**.

A further 7.3 Mt of material grading at 1.48 g/t gold and containing a further 348 koz of gold are classified as Inferred Resources. Details of these estimates are shown below in **Table 4**.

Readers are referred to ASX release “Perseus Mining Updates Edikan Gold Mine’s Mineral Resource & Ore Reserves” dated 20 February 2020 and the notes contained therein. The Company confirms that it is not aware of any information that would result in a material change to the estimates of Mineral Resources previously released.

Table 3: Edikan Measured and Indicated Mineral Resources – 31 December 2019^{9, 10, 11}

Project	Type	Measured Resources			Indicated Resources			M & I Resources		
		Quantity	Grade	Gold	Quantity	Grade	Gold	Quantity	Grade	Gold
		Mt	g/t gold	'000 oz	Mt	g/t gold	'000 oz	Mt	g/t gold	'000 oz
AF Gap ^{1, 2, 3}	Open Pit	10.2	1.00	326	21.8	0.92	645	32.0	0.94	971
Esujah North ^{2, 3, 4}	Open Pit	3.3	0.80	85	4.8	0.74	114	8.1	0.77	199
Fetish ^{1, 2, 3, 5}	Open Pit	7.7	1.00	248	14.1	0.92	418	21.8	0.95	666
Bokitsi South ^{2, 3, 6}	Open Pit	1.3	1.81	73	1.6	1.30	65	2.8	1.53	139
Sub-Total		22.5	1.01	732	42.2	0.91	1,242	64.7	0.95	1,975
Esujah South ⁷	U/ground	0.0	0.0	0	9.0	1.8	530	9.0	1.8	530
Heap Leach ^{2, 8}	Stockpile	-	-	-	3.6	0.6	75	3.6	0.6	75
Stockpiles	Stockpile	5.9	0.63	119	-	-	-	5.9	0.63	119
Total		28.4	0.93	852	54.8	1.05	1,848	83.3	1.01	2,699

Notes:

1. Based on January 2017 Mineral Resource models constrained to US\$1,800/oz pit shells.
2. Depleted to 31 December 2019 mining surfaces.
3. 0.4g/t gold cut-off applied.
4. Based on June 2019 Mineral Resource model constrained to US\$1,800/oz pit shell.
5. Includes Bokitsi North lode.
6. Based on November 2019 Mineral Resource model constrained to US\$1,800/oz pit shell.
7. Based on July 2019 Mineral Resource model, 0.8g/t gold cut-off applied.
8. At zero cut-off grade.
9. All Mineral Resources are current as at 31 December 2019.
10. Mineral Resources are inclusive of Ore Reserves.
11. Rounding of numbers to appropriate precisions may have resulted in apparent inconsistencies.

Table 4: Edikan Inferred Mineral Resources – 31 December 2019^{7, 8}

Deposit	Deposit Type	Inferred Resources		
		Quantity	Grade	Gold
		Mt	g/t gold	'000 oz
AF Gap ^{1, 2, 3}	Open Pit	0.3	0.95	10
Esujah North ^{2, 3, 4}	Open Pit	0.03	0.96	1
Fetish ^{1, 2, 3, 5}	Open Pit	0.7	0.95	22
Bokitsi South ^{2, 3, 6}	Open Pit	0.3	1.06	9
Esujah South ⁷	U/ground	6	1.6	307
Total		7.3	1.48	348

Notes:

1. Based on January 2017 Mineral Resource models constrained to US\$1,800/oz pit shells.
2. Depleted to 31 December 2019 mining surfaces.
3. 0.4g/t gold cut-off applied.
4. Based on June 2019 Mineral Resource model constrained to US\$1,800/oz pit shell.
5. Includes Bokitsi North lode.
6. Based on November 2019 Mineral Resource model constrained to US\$1,800/oz pit shell.
7. Based on July 2019 Mineral Resource model, 0.8g/t gold cut-off applied.
8. All Mineral Resources are current as at 31 December 2019.
9. Rounding of numbers to appropriate precisions may have resulted in apparent inconsistencies.

The updated Edikan Ore Reserve which is summarised below in Table 5 is estimated at 45.7 million tonnes of ore, grading 1.10 g/t gold and containing 1,608 koz of gold and is based on the re-estimated Edikan Mineral Resources as at 31 December 2019. The updated Ore Reserve is based on a gold price of \$1,300 per ounce (up from \$1,200 per ounce in the previous LOMP) on an updated pit optimisation, design and schedule on the new Bokitsi South open pit Mineral Resource, updated pit optimisation, design and scheduling of the AFG and Fetish deposits based on reduced operating costs and a new Esuajah South Underground Ore Reserve following an update of the feasibility study for the deposit. Table 5 reports the Ore Reserves by category, deposit and type, above variable cut-off grades. The classification categories of Proved and Probable under the JORC Code are equivalent to the CIM categories of the same name (CIM, 2010).

Readers are referred to ASX release “Perseus Mining Updates Edikan Gold Mine’s Mineral Resource & Ore Reserves” dated 20 February 2020 and the notes contained therein. The Company confirms that it is not aware of any information that would result in a material change to the estimates of Ore Reserves previously released.

Table 5: Edikan Gold Mine Proved and Probable Ore Reserves as at 31 December 2019^{3,6,7}

Deposit	Deposit Type	Proved			Probable			Proved + Probable		
		Quantity	Grade	Gold	Quantity	Grade	Gold	Quantity	Grade	Gold
		Mt	g/t gold	koz	Mt	g/t gold	Koz	Mt	g/t gold	koz
AF Gap ^{1,4}	Open Pit	6.8	1.14	248	11.9	1.05	402	18.6	1.09	650
Esuajah North ^{1,4}	Open Pit	0.4	0.91	11	0.6	0.86	17	1.0	0.88	28
Fetish ^{1,4}	Open Pit	4.4	1.18	165	7.1	1.09	248	11.4	1.13	414
Bokitsi South ^{1,4}	Open Pit	0.9	2.11	58	0.4	1.70	24	1.3	1.97	82
Sub-total	Open Pit	12.3	1.22	482	20.0	1.08	690	32.3	1.13	1,173
Esuajah South	U/ground				3.8	1.96	241	3.8	1.96	241
Heap Leach ⁵	Stockpile				3.6	0.6	75	3.6	0.6	75
ROM Stockpiles ²	Stockpile	5.9	0.63	119				5.9	0.63	119
Total		18.3	1.02	601	27.4	1.14	1,007	45.7	1.10	1,608

Notes:

1. Based on December 2019 Mineral Resource estimate which is depleted to 31st December 2019.
2. Based on stockpile balance as at 31st December 2019.
3. All Ore Reserves current as at 31st December 2019.
4. Variable gold grade cut-off based on recovery of each material type in each deposit: Oxide 0.35 – 0.40 g/t, Transition 0.50 – 0.70 g/t and Fresh 0.50 – 0.55 g/t.
5. Based on 0.40 g/t gold grade cut-off.
6. Inferred Mineral Resource is considered as waste, t : t.
7. Rounding of numbers to appropriate precisions may have resulted in apparent inconsistencies.

Proven and Probable Ore Reserves are found within the economic limits of four discrete open pits, an underground project and stockpiles that have been designed based on Measured and Indicated Mineral Resources that incorporated all available Resource in-fill drilling results, a gold price of US\$1,300 per ounce and mining, processing and general and administration parameters generally derived from recent operating experience. Note that the Esujah North pit is due to be mined out completely before the commencement of the LOMP in July 2020.

3. Gold production profile

With the aim of maximising the return on funds employed at Edikan, the mining sequence of the pits along with mill feed profile has been optimised and scheduled. The result of this scheduling is that the gold production profile and resulting cash flows from Edikan remain strong for the remainder of the mine life. (Refer to **Figures 2, 3 and 4** below.)

Figure 2: Edikan Gold Mine - scheduled monthly material movement ex-pit (Mtonnes)

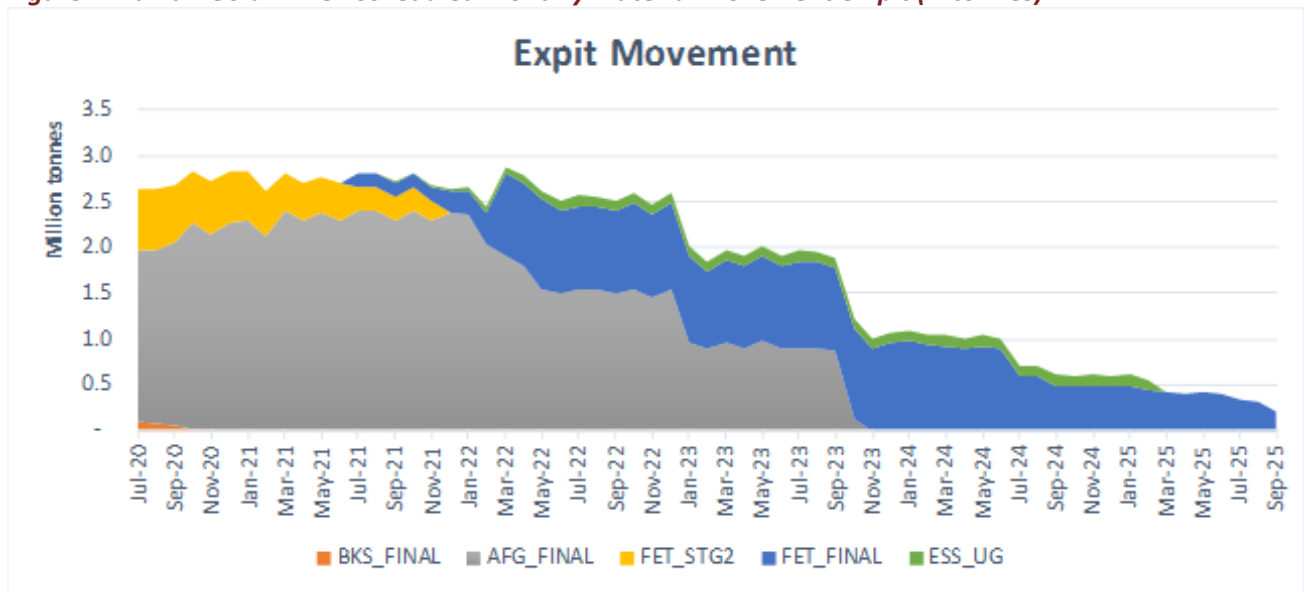


Figure 3: Edikan Gold Mine – yearly tonnes and grade to Mill

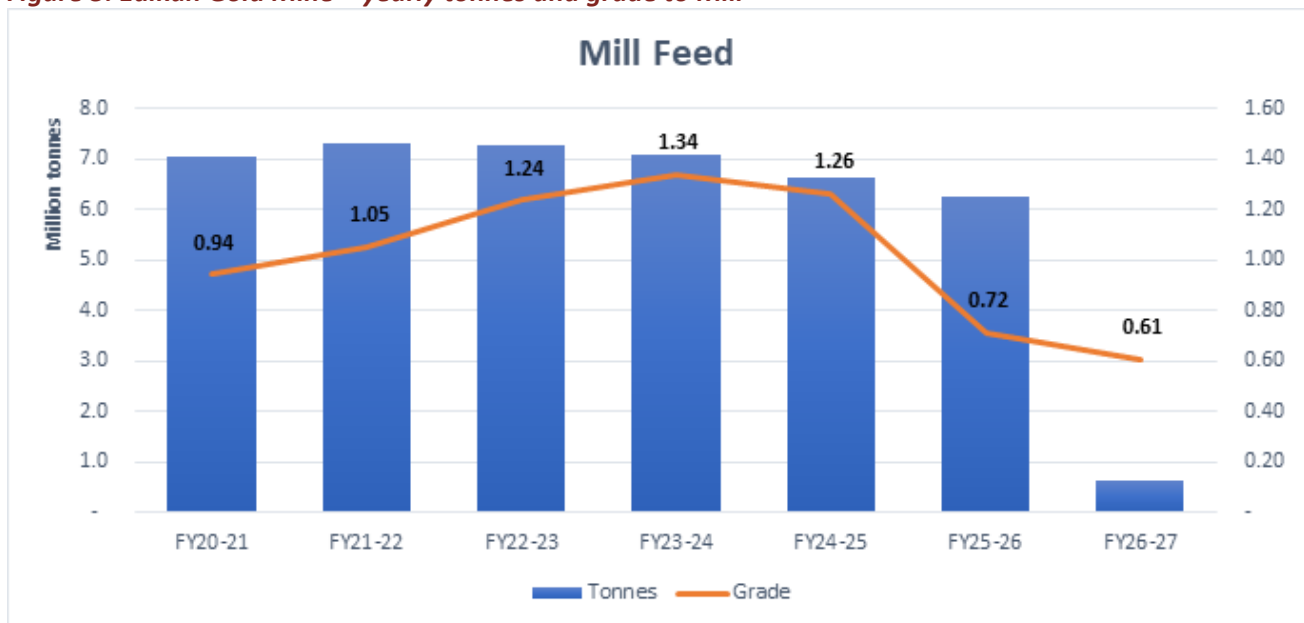
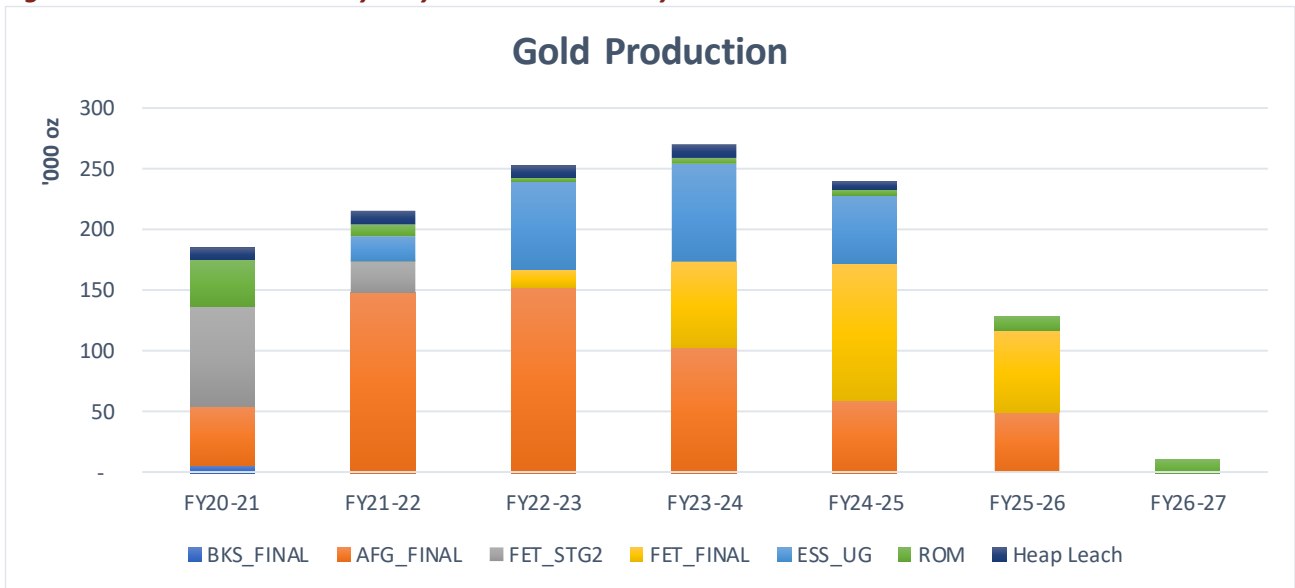


Figure 4: Edikan Gold Mine – yearly Gold Production by Pit



The Esujah South deposit is now included in Edikan’s production profile, due to a reduction in processing costs and an increase in the gold price used to determine Ore Reserves.

4. Improved operating efficiencies

In 2016, Perseus invested heavily in upgrading key elements of Edikan’s process plant and also establishing standby power generating capacity to ensure continuity of operations irrespective of the availability of power from the national electricity grid. These works were successful in increasing the run time on the processing plant.

During 2018 and 2019, the focus of business improvement was to increase the processing plant throughput rate. This was achieved through improving blast fragmentation in the open pit and optimising mill load through the use of the MillSlicer and MillStar technology, as well as other initiatives. The combined impact of the initiatives was to lift throughput rate by more than 10%, thereby reducing unit processing and G&A costs significantly. Further initiatives to optimise the processing circuit are in progress, with further cost improvements possible.

Assumed, average, annual processing throughput rate of ore is 7.0Mtpa, with throughput rates variable by material type and deposit as shown in **Table 6**. The processing circuit involves single stage crushing, semi-autogenous grinding, gravity recovery, flotation, regrind and CIL. Run time, which is the product of availability and utilisation, is forecast to average 92.6% for the remaining life of mine

The process metallurgical recovery for gold is fixed by material type in each deposit. Gold recovery rates range from 56-61% for oxide ore and 70-90% for primary ore. The variable recoveries are a function of differing metallurgical properties of ores from different deposits. Recovery by pit and ore type are as shown in **Table 7**.

Table 6: Mill throughput by material type and pit

Deposit	Mill Throughput Rate by Ore Type (tph)		
	Oxide	Transition	Fresh
AF Gap	156	886	844
Bokitsi	200	1,136	1,082
Fetish	135	763	727
Esujah North	154	786	776
Heap Leach	95	-	-

Table 7: Metallurgical recoveries by material type and pit

Deposit	Recovery by Ore Type (%)		
	Oxide	Transition	Fresh
AF Gap	61.0	73.4	88.0
Bokitsi	56.0	64.0	70.2 ¹
Fetish	61.0	73.4	90.0
Esujah North	61.0	73.4	90.0
Heap Leach	67.0	-	-

¹ Average value for the remaining material, the recovery for Bokitsi is variable based on the input grade

5. Future cash flows and sensitivity analysis

Based on Edikan's revised LOM gold production and cost parameters, the net after tax cash flows forecast to be generated by the mine from 1 July 2020, at US\$1,300 per ounce gold price, are estimated to total US\$356 million or A\$0.51 per share (assuming an A\$:US\$ exchange rate of 0.60).

The sensitivity analysis shown below in **Table 8** summarises the sensitivity of Edikan's net after tax cash flows to movements in the gold price.

Table 8: Sensitivity Edikan's After Tax Cashflow to gold price movements

Gold Price			
US\$1,200/ounce	US\$1,250/ounce	US\$1,300/ounce	US\$1,350/ounce
US\$280 million	US\$318 million	US\$356 million	US\$393 million
A\$0.40/share	A\$0.45/share	A\$0.51/share	A\$0.56 / share

Within an expected short-term gold price trading range of US\$1,200 per ounce to US\$1,350 per ounce, the projected cash flows of the mine remain robust and capable of materially contributing to the development funding of Perseus's current project in construction, namely the Yaouré Gold Mine, located in Côte d'Ivoire.

This report has been authorised for release by the Board.
To discuss any aspect of this announcement, please contact:

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Caution Regarding Forward Looking Information:

This report contains forward-looking information which is based on the assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management of the Company believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. Assumptions have been made by the Company regarding, among other things: the price of gold, continuing commercial production at the Edikan Gold Mine and the Sissingué Gold Mine without any major disruption due to the COVID-19 pandemic or otherwise, development of a mine at Yaouré, the receipt of required governmental approvals, the accuracy of capital and operating cost estimates, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used by the Company. Although management believes that the assumptions made by the Company and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. Forward-looking information involves known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, the actual market price of gold, the actual results of current exploration, the actual results of future exploration, changes in project parameters as plans continue to be evaluated, as well as those factors disclosed in the Company's publicly filed documents. The Company believes that the assumptions and expectations reflected in the forward-looking information are reasonable. Assumptions have been made regarding, among other things, the Company's ability to carry on its exploration and development activities, the timely receipt of required approvals, the price of gold, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers should not place undue reliance on forward-looking information. Perseus does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

Competent Person Statement

All production targets for the Edikan Gold Mine referred to in this report are underpinned by estimated Ore Reserves which have been prepared by competent persons in accordance with the requirements of the JORC Code. The information in this report that relates to Mineral Resources and Ore Reserves for the Esuajah North deposit at the Edikan Gold Mine was first reported by the Company in compliance with the JORC Code 2012 and NI43-101 in a market announcement entitled "Perseus Mining Updates Mineral Resources & Ore Reserves" released on 29 August 2019. The information in this report that relates to the Mineral Resources for the Edikan deposits (other than the Fetish, AFG, Bokitsi South, Esuajah North and Esuajah South deposits) was first reported by the Company in compliance with the JORC Code 2012 and NI43-101 in a market announcement released on 29 August 2018. The information in this report that relates to Ore Reserves for the Edikan deposits (other than the Fetish, AFG, Bokitsi South, Esuajah North and Esuajah South deposits) was first reported by the Company in compliance with the JORC Code 2012 and NI43-101 in a market announcement entitled "Perseus Mining Updates Mineral Resources & Ore Reserves" released on 29 August 2018. The above-mentioned deposits have been updated for mining depletion as at 31 December 2019 in a market announcement "Perseus Mining Updates Edikan Gold Mine's Mineral Resource & Ore Reserves" released on 20 February 2020. The information in this report that relates to the Mineral Resource and Ore Reserve estimates for the Bokitsi South and Esuajah South underground and to the Ore Reserve estimates for the Fetish and AFG deposits at the Edikan Gold Mine was first reported by the Company in compliance with the JORC Code 2012 and NI43-101 in a market announcement "Perseus Mining Updates Edikan Gold Mine's Mineral Resource & Ore Reserves" released on 20 February 2020. The Company confirms that it is not aware of any new information or data that materially affect the information in those market releases and that all material assumptions underpinning those estimates and the production targets, or the forecast financial information derived therefrom, continue to apply and have not materially changed. The Company further confirms that material assumptions underpinning the estimates of Ore Reserves described in "Technical Report — Central Ashanti Gold Project, Ghana" dated 30 May 2011 continue to apply.