

## PERSEUS MINING UPDATES MINERAL RESOURCES AND ORE RESERVES

### EXECUTIVE SUMMARY

Perth, Western Australia/August 24, 2023/Perseus Mining Limited (ASX/TSX: PRU) wishes to update the estimates of the Mineral Resources and Ore Reserves at each of its West African operations as summarised in **Table 1** and

**Table 2** below, and detailed in this report. Foreign Estimates are stated for the Meyas Sand Gold Project (MSGP, formerly Block 14) Mineral Resource and Mineral Reserves in the 'Foreign Estimate' subsection.

### HIGHLIGHTS

- Perseus Mining has delivered another year of positive growth from resource definition drilling and studies, leading to an increase to the Measured and Indicated (M&I) Mineral Resource and increase to Proved and Probable Ore Reserves, ensuring the long-term sustainability of the Group's production profile.
- The Group's total M&I Mineral Resources at 30 June 2023 are estimated to be 122.8 Mt grading 1.31 g/t gold, containing 5.2 Moz of gold, compared with the estimate of 30 June 2022 of 132.9 Mt grading at 1.19 g/t Au for 5.1 Moz of gold.
- Group Proved and Probable Ore Reserves are now estimated at 73.8 Mt at 1.45 g/t gold for 3.4 Moz, compared to the estimate of 30 June 2022 of 72.5 Mt grading at 1.39 g/t Au for 3.3 Moz ounces of gold, this is an increase after depletion of +192 koz (+6% addition) via organic growth during the past twelve months.
- At Yaouré Gold Mine, the completion of an underground feasibility study, combined with underground and open pit resource definition drilling and studies has converted Inferred Mineral Resources to Indicated, and increased Yaouré Ore Reserves by 5.5 Mt grading 2.31 g/t for 410 koz of gold after depletion, for a total of 37.2 Mt at 1.73 g/t containing 2.1 Moz, which will significantly increase mine life.
- Underground Probable Ore Reserves estimated to date total 4.9 Mt of ore grading 3.51 g/t gold and containing 559 koz of gold, which is an increase for FY23 of 2.7 Mt at 3.46 g/t gold containing 300 koz of gold.
- Yaouré open pit Probable Ore Reserves have increased in FY23 by 6.9 Mt at 1.82 g/t for 403 koz of gold, for a total of 11.8 Mt at 1.49 g/t gold containing 565 koz of gold.

**Table 1: Perseus Mining Mineral Resources<sup>1,2,4,5</sup>**

PROJECT	MEASURED RESOURCES			INDICATED RESOURCES			MEASURED & INDICATED RESOURCES			INFERRED RESOURCES		
	QUANTITY	GRADE	GOLD	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	Mt	g/t gold	'000 oz
Edikan	15.6	1.07	534	46.6	1.02	1,523	62.2	1.03	2,057	6.2	1.6	311
Sissingué <sup>3</sup>	3.5	1.63	182	2.4	1.87	144	5.9	1.73	326	0.3	1.8	15
Yaouré	4.4	0.84	119	50.3	1.66	2,684	54.7	1.59	2,804	11.3	1.9	701
Total	23.5	1.11	835	99.3	1.36	4,351	122.8	1.31	5,187	17.8	1.8	1,027

**Table 2: Perseus Mining Ore Reserve<sup>1,4,5</sup>**

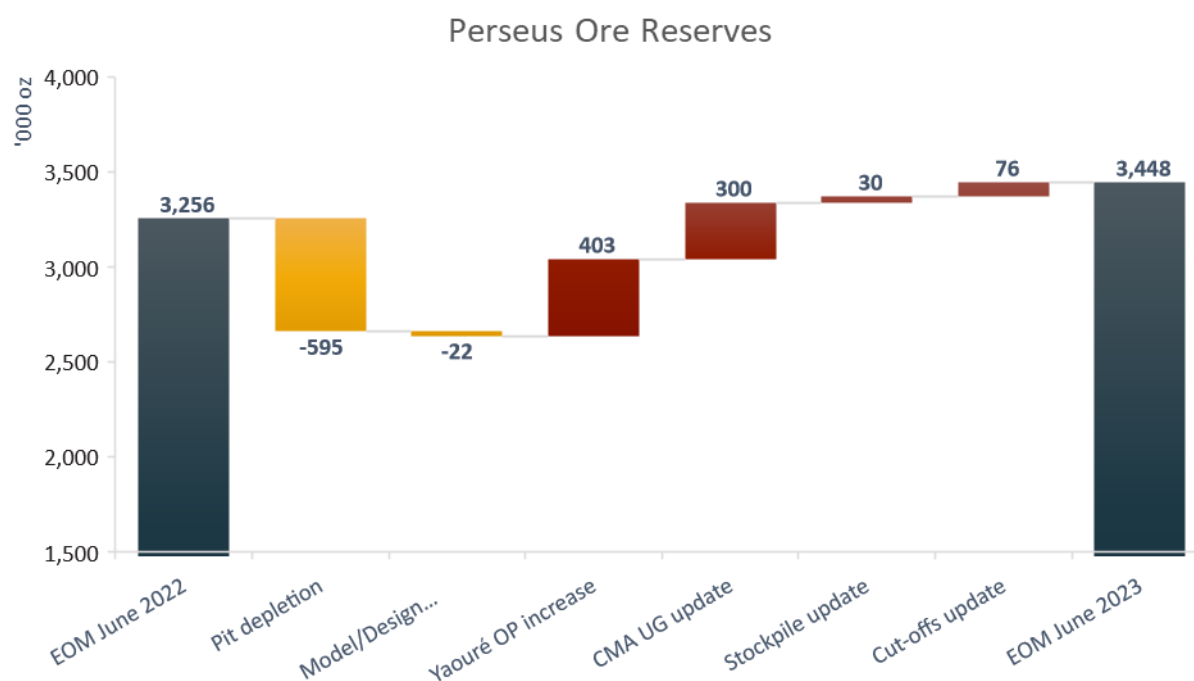
PROJECT	PROVED			PROBABLE			PROVED AND PROBABLE		
	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
Edikan	7.4	1.07	255	25.0	1.09	874	32.5	1.08	1,129
Sissingué <sup>3</sup>	2.7	1.72	149	1.5	2.04	98	4.2	1.83	247
Yaouré	4.4	0.84	119	32.8	1.85	1,953	37.2	1.73	2,072
Total	14.6	1.12	523	59.3	1.53	2,925	73.8	1.45	3,448

Notes for Tables 1 and 2:

- 1 Refer to Notes to individual tables of Mineral Resources and Ore Reserves in respect of each project presented below.
- 2 Mineral Resources are inclusive of Ore Reserves.
- 3 Sissingué Mineral Resources and Ore Reserves include the Fimbiasso and Bagoé Projects in addition to the Sissingué Gold Mine.
- 4 The Company holds 90% of Edikan Gold Mine (EGM), 86% of Sissingué Gold Mine (SGM) and 90% of Yaouré Gold Mine (YGM).
- 5 Excludes Foreign/Historical Estimates

The change in Group Ore Reserve estimate from June 2022 to June 2023 is shown below in **Figure 1**. Perseus Group Ore Reserves have been estimated at a gold price of \$1,500/oz for June 2023, an increase from the \$1,300/oz price assumption used in June 2022. Please refer to individual tables below for details of which price applies to individual Ore Reserves.

**Figure 1: Change in Group Ore Reserves – June 2022 to June 2023**



## MINERAL RESOURCE ESTIMATES

The Group's total M&I Mineral Resources as at 30 June 2023 are estimated to be 122.8 Mt grading 1.31 g/t gold, containing 5.2 Moz of gold, compared with the estimate of 30 June 2022 of 132.9 Mt grading at 1.19 g/t Au for 5.1 Moz of gold. The Mineral Resource Statement as at 30 June 2023 accounts for mining depletion of in situ Mineral Resources and is reported inclusive of Ore Reserves. Tonnes are reported as dry metric tonnes. All tabulated tonnes, grade and metal have been rounded to reflect appropriate precision in the estimate and may cause some discrepancies in totals. The Group M&I Mineral Resources as at 30 June 2023 are detailed in **Table 3**.

Foreign/Historical Estimates for the MSGP Mineral Resource in Northern Sudan, announced on 28 February 2022 (see news release "Perseus enters into agreement to acquire Orca Gold Inc.") are stated in the 'Foreign/Historical Estimate' subsection of this report and are reported separately from the Group's Mineral Resources detailed below.

**Table 3: Perseus Mining Group Measured and Indicated Mineral Resources<sup>1,2,3</sup>**

PROJECT	MEASURED RESOURCES			INDICATED RESOURCES			MEASURED & INDICATED 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
Edikan	15.6	1.07	534	46.6	1.02	1,523	62.2	1.03	2,057
Sissingué	3.5	1.63	182	2.4	1.87	144	5.9	1.73	326
Yaouré	4.4	0.84	119	50.3	1.66	2,684	54.7	1.59	2,804
<b>Total</b>	<b>23.5</b>	<b>1.11</b>	<b>835</b>	<b>99.3</b>	<b>1.36</b>	<b>4,351</b>	<b>122.8</b>	<b>1.31</b>	<b>5,187</b>

1 Refer to Notes to individual tables of Mineral Resources in respect of each project presented below.

2 Mineral Resources are inclusive of Ore Reserves

3 Excludes Foreign/Historical Estimates

Key change to the M&I Mineral Resources are:

- The increase of Indicated open pit Mineral Resources at the Yaouré deposit at the Yaouré Gold Mine by 300 koz to 19.2 Mt at 1.27 g/t Au for 784 koz of gold.
- The CMA underground Indicated Mineral Resource increased by 439 koz for 3.55 Mt at 3.84 g/t Au after the inclusion of recent resource definition drilling.

As at 30 June 2023, Inferred Resources are 17.8 Mt grading at 1.8 g/t Au for 1.0 Moz of gold. The Group Inferred Mineral Resources are detailed in **Table 4**.

**Table 4: Perseus Mining Group Inferred Mineral Resources<sup>1,2,3</sup>**

PROJECT	Inferred Resources		
	Quantity	Grade	Gold
	Mt	g/t gold	'000 oz
Edikan	6.2	1.6	311
Sissingué	0.3	1.8	15
Yaouré	11.3	1.9	701
<b>Total</b>	<b>17.8</b>	<b>1.8</b>	<b>1,027</b>

1 Refer to Notes to individual tables of Mineral Resources in respect of each project presented below.

2 Mineral Resources are inclusive of Ore Reserves

3 Excludes Foreign/Historical Estimates

The Group Mineral Resource estimates are reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). The classification categories of Measured, Indicated and Inferred under the JORC Code are equivalent to the CIM categories of the same names (CIM, 2014).

For the purpose of satisfying “reasonable prospects for eventual extraction” (JORC Code 2012), open pit Mineral Resources are reported above optimised open pit shells developed with actual and estimated operating costs and a long-term gold price assumption of US\$1,800 per ounce. Underground Mineral Resources at CMA are constrained to below the CMA Stage 3 pit design and a 1.5 g/t Au cut-off. Underground Mineral Resources at Edikan are constrained to a depth of 600mRL at Esuajah South and are all exclusive of open pit Mineral Resources.

Technical Reports associated with these Mineral Resources, have been prepared in accordance with NI 43-101 for the following operations:

- Yaouré Operations, Côte d’Ivoire, NI 43-101 Technical Report, dated 18 December 2017
- Sissingué Operations, Côte d’Ivoire, NI 43-101 Technical Report, dated 29 May 2015
- Edikan Operations, Ghana, NI 43-101 Technical Report, dated 7 April 2022

These reports can be found on Perseus’s website at [www.perseusmining.com](http://www.perseusmining.com) and on the System for Electronic Document Analysis and Retrieval (SEDAR) website [www.sedar.com](http://www.sedar.com).

## YAOURÉ GOLD MINE, CÔTE D’IVOIRE

The combined M&I Mineral Resource for the Yaouré Gold Mine (“YGM” or “Yaouré”) is estimated at 54.7 Mt grading 1.59 g/t Au, containing 2.8 Moz of gold (**Table 5**). A further 11 Mt of material grading 1.9 g/t gold, containing 701 koz of gold are classified as Inferred Mineral Resources (**Table 6**).

The CMA open pit and the Yaouré open pit Mineral Resource estimates for the Yaouré Gold Mine were updated to include all recent Yaouré deposit and CMA Underground resource drilling and are depleted to 30 June 2023 surveyed mining surfaces. The inclusion of additional resource drilling resulted in a substantial increase to the Indicated Mineral

Resources for the Yaouré open pit and CMA Underground. Readers are referred to ASX release “Perseus Mining announces open pit and underground Ore Reserve growth at Yaouré” dated 23 August 2023 for additional details.

The Yaouré satellite deposits are reported for mine depletion as at 30 June 2023. Readers are referred to ASX release “Perseus Mining Updates Mineral Resource and Reserve Estimates” dated 30 August 2022.

**Table 5: Yaouré Measured and Indicated Mineral Resources<sup>9,10,11</sup>**

DEPOSIT	DEPOSIT TYPE	MEASURED RESOURCES			INDICATED RESOURCES			MEASURED & INDICATED RESOURCES		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
CMA <sup>1,3,4,6</sup>	Open Pit	-	-	-	16.7	1.32	710	16.7	1.32	710
Yaouré <sup>2,3,4,6</sup>	Open Pit	-	-	-	19.2	1.27	784	19.2	1.27	784
Satellite deposits <sup>5,6</sup>	Open Pit	-	-	-	6.6	0.97	206	6.6	0.97	206
Sub Total		-	-	-	42.6	1.24	1,700	42.6	1.24	1,700
CMA <sup>8</sup>	Underground	-	-	-	7.3	4.17	976	7.3	4.17	976
Heap Leach <sup>3,7</sup>	Stockpile	-	-	-	0.4	0.61	8	0.4	0.61	8
Stockpiles	Stockpile	4.4	0.84	119	-	-	-	4.4	0.84	119
TOTAL		4.4	0.84	119	50.3	1.66	2,684	54.7	1.59	2,804

**Table 6: Yaouré Inferred Mineral Resource<sup>9,10,11</sup>**

DEPOSIT	DEPOSIT TYPE	INFERRED RESOURCES		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
CMA <sup>1,3,4,6</sup>	Open Pit	2.6	0.7	58
Yaouré <sup>2,3,4,6</sup>	Open Pit	3.0	1.3	124
Satellite deposits <sup>5,6</sup>	Open Pit	1.3	0.8	34
CMA <sup>8</sup>	Underground	4.4	3.4	485
Total		11.3	1.9	701

Notes for Tables 5 and 6:

1. Based on June 2022 Mineral Resource estimate.
2. Based on June 2023 Mineral Resource estimate.
3. Depleted for previous mining and to 30 June 2023 mining surface.
4. 0.4 g/t gold cut-off applied to in situ open pit material.
5. Based on Angovia 2 April 2021, Govisou June 2022 and CMA SW August 2022 Mineral Resource models.
6. In situ open pit resources constrained to US\$1,800/oz pit shells.
7. Heap leach resources are stated at 0 g/t gold cut-off; only heap leach components with average grade above 0.4 g/t included.
8. June 2023 Mineral Resource estimate, below Stage 3 pit and above 1.5 g/t block grade cut-off.
9. Mineral Resources current as of 30 June 2023.
10. Rounding of numbers to appropriate precision may result in summary inconsistencies.
11. Mineral Resources are reported inclusive of Ore Reserves.

## STOCKPILES

Mineral Resources contained in stockpiles are based on volume estimates from ground survey data, loose bulk densities are derived over time by reconciliation of volumes mined (at in situ densities) compared to stockpile movements and calculated volumes, with estimates of stockpile grades based on predicted grades of mined material transferred onto stockpiles compared to material depleted by processing.

Closing Yaouré stockpiles at 30 June 2023 were estimated as shown in **Table 7**.

**Table 7: Yaouré Closing Stockpiles<sup>1</sup>**

MATERIAL	QUANTITY kt	GRADE g/t gold	GOLD '000 oz
Low grade	4,256	0.76	105
Medium grade	19	1.17	1
High grade	83	2.87	8
Crushed ore stockpile	82	2.39	6
Total	4,441	0.84	119

Notes:

- 1 Stockpile tonnage and grade estimates are considered sufficiently accurate to support their classification as Measured Mineral Resources.

## SISSINGUÉ GOLD MINE, CÔTE D'IVOIRE

The combined M&I Mineral Resource for the Sissingué Gold Mine (SGM or Sissingué) is estimated as 5.9 Mt grading 1.73 g/t gold, containing 326 koz of gold. A further 0.3 Mt of material grading 1.8 g/t gold, containing 15 koz of gold are classified as Inferred Mineral Resources. Details of these estimates are shown below in **Table 8** and **Table 9**.

Sissingué Mineral Resources comprise the remaining in situ mineralisation at the Sissingué mine, Fimbiasso East and West deposits, and mineralisation at the Antoinette, Juliette, and Veronique deposits at the Bagoé Project. These Mineral Resources also include material on stockpiles at Sissingué mine as at 30 June 2023.

All geological models remain unchanged from the previous year's Mineral Resource Statement (see news release 'Perseus Mining Updates Life of Mine Plan for Sissingué Gold Mine and Satellite Deposit' dated 28 March 2022).

The Sissingué and Fimbiasso Mineral Resource have been depleted to the 30 June 2023 using the surveyed mining surface. Mining has not commenced at the Bagoé Project.

**Table 8: Sissingué Measured and Indicated Mineral Resources** <sup>1, 2, 3</sup>

DEPOSIT	DEPOSIT TYPE	MEASURED RESOURCES			INDICATED RESOURCES			MEASURED & INDICATED RESOURCES		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
Sissingué <sup>4, 5, 6</sup>	Open Pit	0.7	1.44	31	1.0	1.49	49	1.7	1.47	80
Fimbiasso <sup>5, 7, 8</sup>	Open Pit	1.5	1.71	82	0.4	1.79	22	1.9	1.72	104
Bagoé <sup>9, 10</sup>	Open Pit	0.7	2.24	53	1.0	2.28	73	1.7	2.26	126
Stockpiles	Open Pit	0.6	0.85	16	-	-	-	0.6	0.85	16
<b>Total</b>		<b>3.5</b>	<b>1.63</b>	<b>182</b>	<b>2.4</b>	<b>1.87</b>	<b>144</b>	<b>5.9</b>	<b>1.73</b>	<b>326</b>

**Table 9: Sissingué Inferred Mineral Resources** <sup>1, 3</sup>

DEPOSIT	DEPOSIT TYPE	INFERRED RESOURCES		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
Sissingué <sup>4, 5, 6</sup>	Open Pit	0.1	1.3	3
Fimbiasso <sup>5, 7, 8</sup>	Open Pit	0.1	1.9	6
Bagoé <sup>9, 10</sup>	Open Pit	0.1	2.2	6
<b>Total</b>		<b>0.3</b>	<b>1.8</b>	<b>15</b>

Notes for Table 8 and 9:

- 1 Mineral Resources current at 30 June 2023.
- 2 Measured and Indicated Mineral Resources are inclusive of Ore Reserves.
- 3 Rounding of numbers to appropriate precision may have resulted in apparent inconsistencies.
- 4 Based on February 2022 Mineral Resource model constrained to US\$1,800/oz pit shell.
- 5 Depleted to 30 June 2023 mining surface.
- 6 0.4 g/t gold cut-off applied to in situ material.
- 7 Based on March 2022 Mineral Resource models constrained to US\$1,800/oz pit shells.
- 8 0.8 g/t gold cut-off applied.
- 9 Based on May 2021 Mineral Resource models constrained to US\$1,800/oz pit shells.
- 10 0.8 g/t gold cut-off applied to oxide, 1.0 g/t applied to transition, 1.0 g/t applied to fresh (Antoinette, Juliette), 1.2 g/t applied to fresh (Veronique).

## STOCKPILES

Mineral Resources contained in stockpiles are based on volume estimates from ground survey data, loose bulk densities are derived over time by reconciliation of volumes mined (at in situ densities) compared to stockpile movements and calculated volumes, with estimates of stockpile grades based on predicted grades of mined material transferred onto stockpiles compared to material depleted by processing.

Closing Sissingué stockpiles at 30 June 2023 are shown in **Table 10**.

**Table 10: Sissingué Closing Stockpiles** <sup>1</sup>

MATERIAL	QUANTITY kt	GRADE g/t gold	GOLD '000 oz
Low grade	403	0.66	9
High grade	165	1.31	7
Crushed ore stockpile	4	1.14	0
<b>TOTAL</b>	<b>572</b>	<b>0.85</b>	<b>16</b>

Notes:

- 1 Stockpile tonnage and grade estimates are considered sufficiently accurate to support their classification as Measured Mineral Resources.

## EDIKAN GOLD MINE, GHANA

The updated M&I Mineral Resource for the Edikan Gold Mine (EGM or Edikan) in Ghana is now estimated as 62.2 Mt grading 1.03 g/t gold, containing 2.1 Moz of gold, as at 30 June 2023 (**Table 11**). A further 6.2 Mt of material grading 1.6 g/t Au and containing 311 koz of gold are classified as an Inferred Mineral Resource (**Table 12**). The previous Mineral Resource as at 30 June 2022 was estimated at M&I of 70.5 Mt grading at 1.02 g/t gold, containing 2.3 Moz of gold and an additional 6.2 Mt grading 1.6 g/t for 310 koz of gold of Inferred Mineral Resources.

Mineral Resources at AF Gap and Fetish have been depleted to the 30 June 2023 mining survey surfaces. The Mineral Resource estimate for the Esujah North and South, and Nkosuo deposits remains unchanged.

The Heap Leach Mineral Resource has been depleted to the 30 June 2023 mining activities, and further truncated to the southern portion of the 'Africa pod' component, which is currently accessible for haulage and treatment.

**Table 11: Edikan Measured and Indicated Mineral Resources <sup>1, 2, 3</sup>**

DEPOSIT	DEPOSIT TYPE	MEASURED RESOURCES			INDICATED RESOURCES			MEASURED & INDICATED RESOURCES		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
AF Gap <sup>4, 5, 6</sup>	Open Pit	2.9	1.05	99	11.7	0.92	348	14.7	0.95	447
Esujah North <sup>5, 6, 7</sup>	Open Pit	2.8	0.79	72	4.0	0.74	95	6.9	0.76	168
Fetish <sup>5, 6, 8</sup>	Open Pit	5.6	0.92	165	8.5	0.82	225	14.1	0.86	390
Nkosuo <sup>9, 10</sup>	Open Pit	-	-	-	14.5	0.91	423	14.5	0.91	423
Sub-Total		11.4	0.92	337	38.8	0.88	1,091	50.2	0.89	1,428
Esujah South <sup>11</sup>	Underground	3.1	1.70	168	5.9	2.09	393	8.9	1.95	561
Heap Leach <sup>12</sup>	Stockpile	-	-	-	2.0	0.60	39	2.0	0.60	39
Stockpiles	Stockpile	1.1	0.82	29	-	-	-	1.1	0.82	29
Total		15.6	1.07	534	46.6	1.02	1,523	62.2	1.03	2,057

**Table 12: Edikan Inferred Mineral Resources <sup>1, 3</sup>**

DEPOSIT	DEPOSIT TYPE	INFERRED RESOURCES		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
AF Gap <sup>4, 5, 6</sup>	Open Pit	0.2	0.9	6
Esujah North <sup>5, 6, 7</sup>	Open Pit	0.0	1.0	1
Fetish <sup>5, 6, 8</sup>	Open Pit	0.2	0.6	4
Nkosuo <sup>9, 10</sup>	Open Pit	0.9	0.9	27
Esujah South <sup>11</sup>	Underground	4.8	1.8	272
Total		6.2	1.6	311

Notes for Tables 11 and 12:

- All Mineral Resources are current as at 30 June 2023.
- Measured and Indicated Mineral Resources are inclusive of Ore Reserves.
- Rounding of numbers to appropriate precision may have resulted in apparent inconsistencies.
- Based on March 2020 Mineral Resource model constrained to US\$1,800/oz pit shell.
- Depleted to 30 June 2023 mining surfaces.
- 0.4 g/t gold cut-off applied.
- Based on June 2019 Mineral Resource model constrained to US\$1,800/oz pit shell.
- Based on May 2021 Mineral Resource model constrained to US\$1,800 pit shell, includes Bokitsi North lode.
- Based on June 2022 Mineral Resource model constrained to US\$1,800/oz pit shell.
- 100.3 g/t gold cut-off applied.
- Based on November 2020 Mineral Resource model, 1.0 g/t gold cut-off applied.
- Based on November 2015 Mineral Resource model and reported at zero cut-off grade.

## STOCKPILES

Mineral Resources contained in stockpiles are based on volume estimates from ground survey data, loose bulk densities are derived over time by reconciliation of volumes mined (at in situ densities) compared to stockpile movements and calculated volumes, with estimates of stockpile grades based on predicted grades of mined material transferred onto stockpiles compared to material depleted by processing.

Closing stockpiles at 30 June 2023 were estimated as shown in **Table 13**.

**Table 13: Edikan Closing Stockpiles<sup>1</sup>**

MATERIAL	QUANTITY kt	GRADE g/t gold	GOLD '000 oz
Low grade	237	0.55	4
High grade	802	0.90	23
Crushed ore stockpile	48	0.83	1
<b>TOTAL</b>	<b>1,088</b>	<b>0.82</b>	<b>29</b>

Notes:

1 Stockpile tonnage and grade estimates are considered sufficiently accurate to support their classification as Measured Mineral Resources.

## ORE RESERVE ESTIMATE

### YAOURÉ GOLD MINE, CÔTE D'IVOIRE

The Ore Reserve estimate for Yaouré Gold Mine includes increases at the Yaouré open pit and CMA underground deposits during FY23, and readers are referred to ASX release “Perseus Mining announces open pit and underground Ore Reserve growth at Yaouré” dated 23 August 2023 for additional details. Yaouré Ore Reserves also includes depletion of CMA pit and minor changes to Near-Mine Satellite deposit Ore Reserves. Readers are referred to the previous news release “Perseus Updates Mineral Resource and Ore Reserve Estimates” dated 28 August 2019 and the notes contained therein. Changes of Ore Reserves from CMA, Yaouré, Near-Mine Satellite and CMA underground deposits are covered in the following section.

The Proved and Probable Ore Reserves for Yaouré Gold Mine are estimated as 37.2 Mt, grading 1.73 g/t gold and containing 2.1 Moz of gold. Details of the estimate are shown in **Table 14**.

**Table 14: Yaouré Proved and Probable Ore Reserves<sup>5,6</sup>**

DEPOSIT	DEPOSIT TYPE	PROVED			PROBABLE			PROVED + PROBABLE		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
CMA <sup>1,2</sup>	Open Pit	-	-	-	11.9	1.81	692	11.9	1.81	692
Yaouré <sup>2,3</sup>	Open Pit	-	-	-	11.8	1.49	565	11.8	1.49	565
Satellite deposits <sup>2,3</sup>	Open Pit	-	-	-	4.1	1.03	137	4.1	1.03	137
<b>Sub-Total</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>27.8</b>	<b>1.56</b>	<b>1,394</b>	<b>27.8</b>	<b>1.56</b>	<b>1,394</b>
CMA <sup>4</sup>	Underground	-	-	-	4.9	3.51	559	4.9	3.51	559
Stockpiles	Stockpile	4.4	0.84	119	-	-	-	4.4	0.84	119
<b>TOTAL</b>		<b>4.4</b>	<b>0.84</b>	<b>119</b>	<b>32.8</b>	<b>1.85</b>	<b>1,953</b>	<b>37.2</b>	<b>1.73</b>	<b>2,072</b>

Notes:

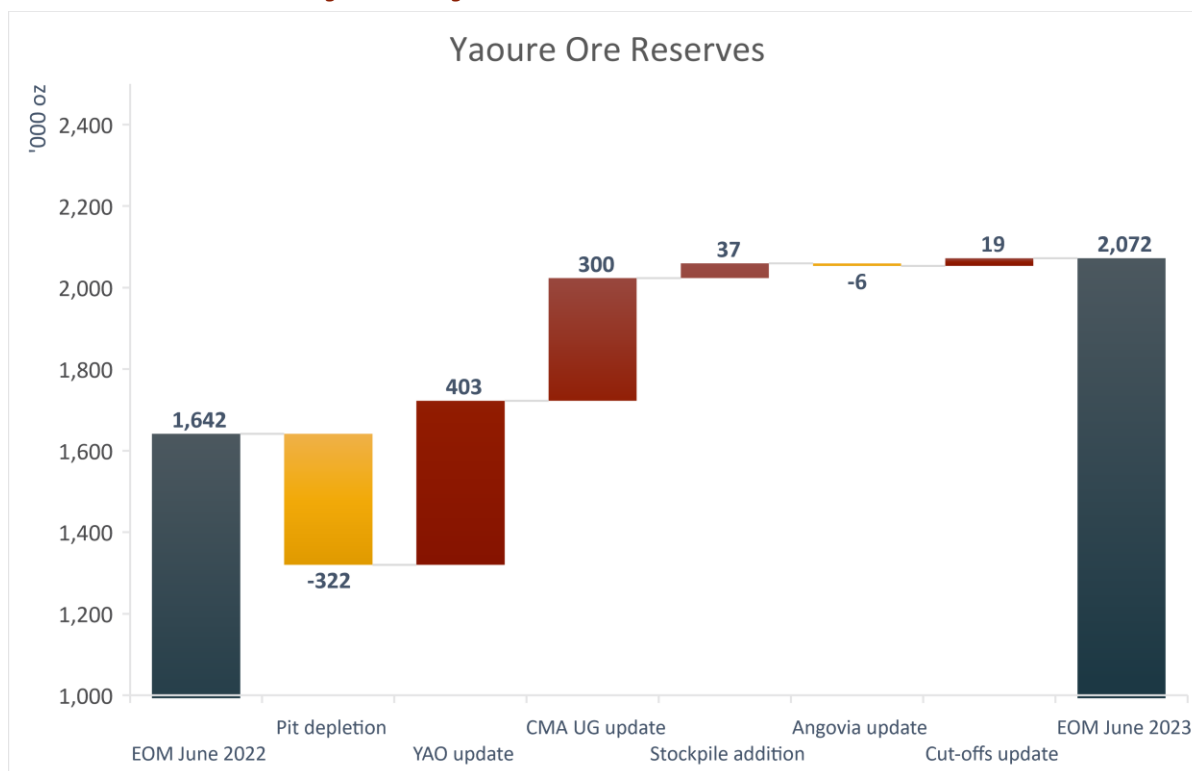
- Based on depletion to 30 June 2023 mining surfaces.
- Variable gold grade cut-offs for each material type, ranging from 0.35 g/t to 0.75 g/t.
- Pit designs are based on US\$1,300/oz gold metal price for satellites and US\$1,500/oz for CMA and Yaouré open pit.
- Based upon cut-off for development and stoping of 0.5 g/t and 2.5 g/t.
- Inferred Mineral Resource is considered as waste for optimisation purposes.
- Rounding of numbers to appropriate precision may have resulted in apparent inconsistencies.

The changes in the Yaouré Gold Mine Ore Reserve from that last quoted in June 2022 are associated with:

- Completion of the CMA underground feasibility study and increase in underground Ore Reserves
- Update in Yaouré deposit open pit Mineral Resource based on the recent resource drilling activities;
- Update in Yaouré pit optimisation based on the new Mineral Resource model and gold price assumption (\$1,500/oz) resulting in new pit design;
- Update on Angovia (one of the Near-Mine Satellite pits);
- Update in cut-offs due to higher gold price assumption;
- Ore depletion from open pit mining activities in CMA and Govisou (one of the Near-Mine Satellites) up to 30 June 2023; and
- Stockpile addition as result of mining activities.

The waterfall graph (**Figure 2**) below, summarises the changes in the Yaouré Gold Mine Ore Reserves.

Figure 2: Change in Yaouré Ore Reserves – June 2022 to June 2023



## ECONOMIC ASSUMPTIONS

- Gold metal price of US\$1,500/oz used for both open pit and underground.
- Un-escalated average costs used in optimising pit designs are as shown in **Table 15** below.
- A discount rate of 10% (real) has been assumed for economic valuation.

Table 15: Assumed average operating costs (Open Pit)

	MINING	PROCESSING	G&A	SELLING	ROYALTIES
CMA open pit	US\$3.41 /t mined	US\$14.82 /t milled	US\$7.30 /t milled	US\$3.05 /oz sold	4.5%
Yaouré open pit	US\$3.21 /t mined	US\$17.28 /t milled	US\$9.30 /t milled	US\$3.05 /oz sold	4.5%

## OPEN PIT MINING PARAMETERS

- The chosen method for the Open Pit Ore Reserves is conventional open pit mining utilising hydraulic excavators and trucks. A mining bench height of 10 metres is used, with loading on 2.5 metres flitches to minimise ore loss and dilution.
- The economic pit shell was defined using Whittle pit optimisation software (“Whittle”) with inputs such as geotechnical parameters, ore loss and dilution, metallurgical recoveries, operating costs, and gold price.
- The pit optimisation was run with revenue generated only by M&I Mineral Resources. No value was allocated to Inferred Mineral Resources.
- Open pit optimisation input parameters were generally based on Perseus’s operating site experience and supporting technical studies.
- The pit slope design assumptions are based on a geotechnical study by Pitt & Sherry Consultants. Inter-ramp pit slopes are 40 to 60 degrees varied by material weathering level and wall sector. Inter-ramp slopes are excluding ramp but including berms spaced at between 10 and 20 metres vertically and berm widths of 4.5 to 7 metres.
- Pit ramps have been designed for a 100-tonne payload truck fleet and are set at 24 metres (dual lane) to 16 metres (single lane).
- Vertical mining advance has been capped based on Perseus’s operating experience.
- Minimum mining width of 40 metres was generally applied to the pit cutback designs.
- There are no physical constraints to mining within the lease area. No property, infrastructure or environmental issues are known to exist which may limit the extent of mining within the mining lease.



- Ore cut-off grades, based on metallurgical recoveries, ore costs and gold price, are as shown in **Table 16**.

**Table 16: Open Pit Cut-Off Grades**

DEPOSIT	CUT-OFF GRADE BY ORE TYPE (G/T GOLD)			
	Oxide	Transition	Fresh Basalt	Fresh Granodiorite
CMA	0.30	0.40	0.45	-
Yaouré	0.45	0.50	0.75	0.60
Near-Mine Satellites				
Angovia 2	0.40	0.45	0.65	-
Govisou	0.40	0.40	0.50	-
CMA Southwest	0.40	0.45	0.55	-

## PROCESSING PARAMETERS

- The process metallurgical recovery for gold is fixed by material type in each deposit. Gold recovery rates range from 91.0% – 93.4% for oxide ore, 91.9% – 94.5% for transition ore and 89.5% – 93.8% for fresh ore. Recovery is a function of the differing metallurgical properties of different material type of ores in each deposit and is determined from metallurgical test work for each deposit and material type. Recoveries are as shown in **Table 17**.
- No deleterious material has been identified.
- Average annual processing throughput rate of ore is dependent on deposit, rock type and weathering state. The weighted average throughput rate for all materials is nominally 3.8 Mtpa.
- The processing circuit involves single stage crushing, semi-autogenous grinding, gravity recovery and carbon-in-leach (CIL).

**Table 17: Metallurgical Recoveries by Material Type for Open Pit Ore Reserves**

DEPOSIT	RECOVERY BY ORE TYPE (%)			
	Oxide	Transition	Fresh Basalt	Fresh Granodiorite
CMA	92.5	92.0	91.5	-
Yaouré	93.0	93.3	92.6	93.8
Near-Mine Satellites				
Angovia 2	92.9	92.0	91.1	-
Govisou	91.0	91.9	91.7	-
CMA Southwest	93.4	94.5	89.5	-

## UNDERGROUND MINING PARAMETERS

The CMA underground Probable Ore Reserve is based upon a Feasibility level mining study, and readers are referred to ASX release “Perseus Mining announces open pit and underground Ore Reserve growth at Yaouré” dated 23 August 2023 for additional details.

## STOCKPILE AND HEAP LEACH PARAMETERS

The stockpiles that existed on 30 June 2023 will be all fed to the processing plant over the mine life based on the blending strategy; associated rehandle costs for all material are allowed for.

## CRITERIA FOR ORE RESERVE CLASSIFICATION

Ore Reserves have been classified based on the underlying Mineral Resource classifications and the level of detail in the mine planning. The Mineral Resources were classified as Measured, Indicated and Inferred. The Ore Reserves, based only on the M&I Resources, have been classified as Proved and Probable Ore Reserves, respectively.

The Ore Reserve is classified as Proved and Probable in accordance with the JORC Code, corresponding to the Mineral Resource classifications of M&I and considering other factors where relevant. The deposits’ geological models are well constrained. The Ore Reserve classification is considered appropriate given the nature of the deposits, the moderate grade variability, drilling density, structural complexity, confidence in input parameters based on operational experience and mining history. It was therefore considered appropriate to use Measured Mineral Resources as a basis for Proved Ore Reserves and Indicated Mineral Resources as a basis for Probable Ore Reserves.

No Inferred Mineral Resources were included in the Open Pit Ore Reserve estimate.

## SISSINGUÉ GOLD MINE, CÔTE D'IVOIRE

The updated Ore Reserve estimate for the Sissingué Gold Mine is a depletion of the previous Sissingué and Fimbiasso deposit Ore Reserve. Mining at Fimbiasso deposit commenced in January 2023.

The Sissingué Ore Reserve is based on the Mineral Resource from 28 March 2022 and readers are referred to ASX news release "Perseus Mining Updates the Life of Mine Plan for Sissingué Gold Mine & Satellite Deposits" dated 28 March 2022 and the notes contained therein.

The Proved and Probable Ore Reserves for the Sissingué Gold Mine are estimated as 4.2 Mt grading 1.83 g/t gold and containing 247 koz of gold. Details of the estimate are shown in **Table 18**.

**Table 18: Sissingué Gold Mine Proved and Probable Ore Reserves** <sup>5,7</sup>

DEPOSIT	DEPOSIT TYPE	PROVED			PROBABLE			PROVED + PROBABLE		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
Sissingué <sup>1,2,3,4</sup>	Open Pit	0.5	1.59	28	0.6	1.59	32	1.2	1.59	59
Fimbiasso <sup>2,4</sup>	Open Pit	1.1	1.88	63	0.2	2.02	13	1.3	1.90	76
Bagoé <sup>2,3,4</sup>	Open Pit	0.5	2.47	42	0.7	2.46	54	1.2	2.46	96
Sub-total	Open Pit	2.1	1.95	133	1.5	2.04	98	3.6	1.99	231
Stockpiles <sup>6</sup>	Stockpile	0.6	0.85	16	-	-	-	0.6	0.85	16
<b>TOTAL</b>		<b>2.7</b>	<b>1.72</b>	<b>149</b>	<b>1.5</b>	<b>2.04</b>	<b>98</b>	<b>4.2</b>	<b>1.83</b>	<b>247</b>

Notes:

1 Based on depletion to 30 June 2023 mining surfaces.

2 Based on Mineral Resource Estimates which were current at 30 June 2023.

3 Based on July 2023 Ore Reserve estimation.

4 Variable gold grade cut-offs for each material type, ranging from 0.40 g/t to 1.05 g/t at Sissingué deposits, from 0.80 g/t to 1.50 g/t at Fimbiasso deposits and from 1.00 g/t to 3.00 g/t at Bagoé deposits.

5 Inferred Mineral Resource is considered as waste.

6 Based on EOM June 2023 stockpile balance report.

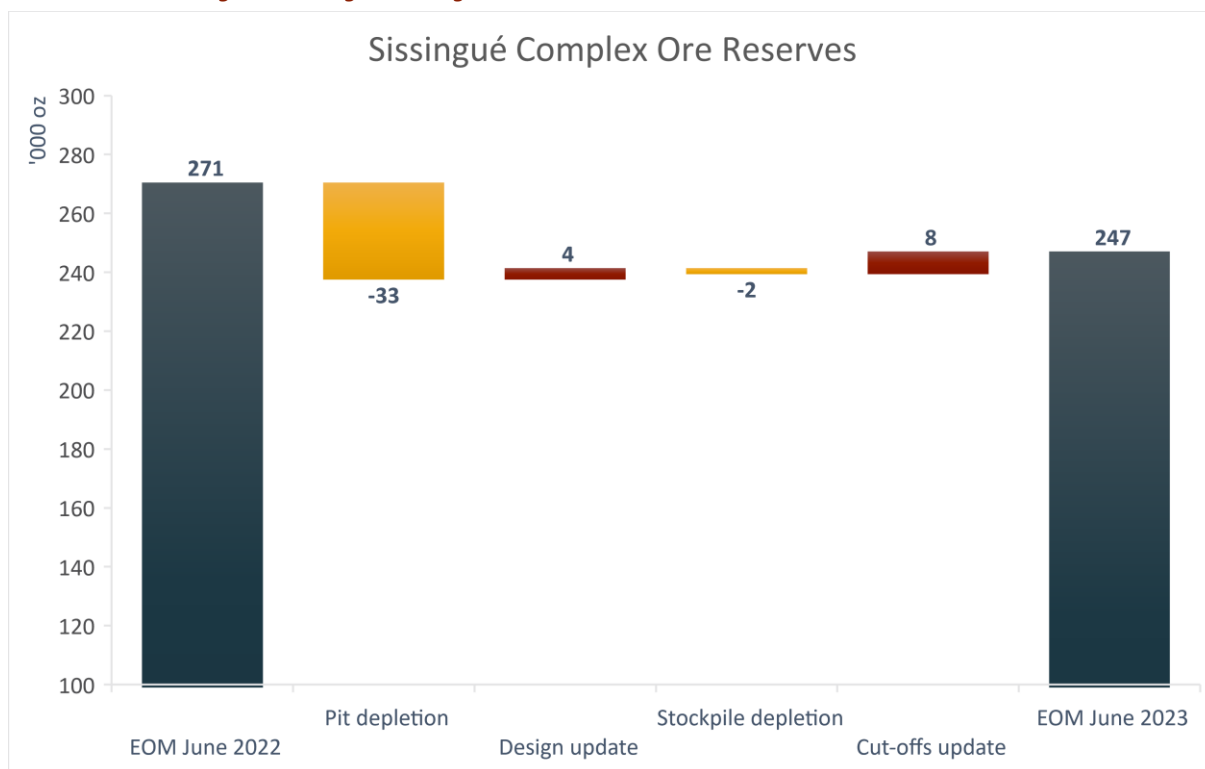
7 Rounding of numbers to appropriate precision may have resulted in apparent inconsistencies.

The changes in the Ore Reserve from that last quoted in June 2022 are associated with:

- Ore depletion from open pit mining activities in Sissingué and Fimbiasso pits up to 30 June 2023;
- Stockpile depletion in order to maintain the processing plant capacity;
- Revised Fimbiasso and Bagoé pit designs based on higher gold price assumption; and
- Update to cut-offs due to higher gold price assumption.

The waterfall graph (**Figure 3**) below summarises the changes in the Sissingué Gold Mine Ore Reserves.

Figure 3: Change in Sissingué Ore Reserves – June 2022 to June 2023



## ECONOMIC ASSUMPTIONS

- Gold metal price US\$1,600/oz for Sissingué and US\$1,500/oz for both Fimbiasso and Bagoé. The higher gold price used at Sissingué reflects the short mine life remaining for the deposit.
- Un-escalated average costs used in optimising pit designs are as shown in **Table 19** below.
- A discount rate of 10% (real) has been assumed for economic valuation.

Table 19: Assumed average operating costs

MINING (OPEN PIT)	PROCESSING	G&A	SELLING	ROYALTIES
US\$5.79 /t mined	US\$14.99 /t milled	US\$11.00 /t milled	US\$3.75 /oz sold	4.8%

## OPEN PIT MINING PARAMETERS

- The chosen method for the Open Pit Ore Reserves is conventional open pit mining utilising hydraulic excavators and trucks, mining bench heights of 5 metres with 2.5 metre flitches to minimise ore loss and waste rock dilution.
- The economic pit shell was defined using Whittle pit optimisation software (“Whittle”) with inputs such as geotechnical parameters, ore loss and dilution, metallurgical recovery and mining costs.
- The pit optimisation was run with revenue generated only by M&I Mineral Resources. No value was allocated to Inferred Mineral Resources.
- Open pit optimisation input parameters were generally based on Perseus’s operating site experience and supporting technical studies.
- The pit slope design assumptions are based on a geotechnical study by George, Orr and Associates (Australia) Pty Ltd for Sissingué and Fimbiasso. For Bagoé deposits, the geotechnical study was completed by Pitt & Sherry Consultants. Overall pit slopes are 30 to 50 degrees inclusive of berms spaced at between 5 and 20 metres vertically and berm widths of 4 to 7 metres.
- Pit ramps have been designed for a 40 tonne ADT truck fleet and are set at 17 metres (dual lane) to 11 metres (single lane).
- Vertical mining advance has been capped based on Perseus’s operating experience.
- Minimum mining width of 40 metres was generally applied to the pit cutback designs.
- There are no physical constraints to mining within the lease areas. No property, infrastructure or environmental issues are known to exist which may limit the extent of mining within the mining areas.

- Ore from Fimbiasso pits will be trucked to Sissingué with a maximum limit of 80 kt/month and from Bagoé pits will be trucked at a maximum limit of 60 kt/month.
- Ore cut-off grades, based on the gold price, cost and mining parameters, are as shown in **Table 20**.

**Table 20: Open Pit Cut-Off Grades**

DEPOSIT	CUT-OFF GRADE BY ORE TYPE (G/T GOLD)			
	Oxide	Transition	Fresh Granite	Fresh Sediment/Mafic
Sissingué	0.40	0.60	0.85	1.05
Fimbiasso	0.60	0.90	1.00	1.20
Bagoé				
Antoinette	0.90	1.20	5.00	-
Juliette	1.00	1.30	3.50	-
Veronique	0.90	1.10	1.40	-

## PROCESSING PARAMETERS

- The metallurgical recovery for gold is fixed by material type in each deposit. Gold recovery rates range from 85.4% for oxide ore and 91% for fresh ore. Recovery variation is a function of differing metallurgical properties of different material type of ores from each deposit. The metallurgical recoveries are as shown in **Table 21**.
- No deleterious material has been identified.
- Average annual processing throughput rate of ore is nominally 1.2Mtpa of ore from all deposits, with throughput rates variable by material type. The processing circuit involves single stage crushing, semi-autogenous grinding, gravity recovery and CIL.

**Table 21: Metallurgical Recoveries by Material Type and Pit**

DEPOSIT	RECOVERY BY ORE TYPE (%)			
	Oxide	Transition	Fresh Granite	Fresh Sediment/Mafic
Sissingué	97.0	95.0	92.0	83.3
Fimbiasso	94.0	93.0	91.0	91.0
Bagoé				
Antoinette	93.3	86.1	24.4	-
Juliette	85.4	79.4	35.4	-
Veronique	93.0	89.7	85.0	-

## STOCKPILE PARAMETERS

Ore mined from both Fimbiasso and Bagoé will be temporarily stockpiled on site then trucked to Sissingué for processing. Ore from Fimbiasso and Bagoé will be blended with remaining ore from the Sissingué deposit in order to keep the processing plant full, thereby minimising unit processing and G&A costs.

## CRITERIA FOR ORE RESERVE CLASSIFICATION

Ore Reserves have been classified based on the underlying Mineral Resource classifications and the level of detail in the mine planning. The Mineral Resources were classified as Measured, Indicated and Inferred. The Ore Reserves, based only on the M&I Resources, have been classified as Proved and Probable Ore Reserves, respectively.

The Ore Reserve is classified as Proved and Probable in accordance with the JORC Code, corresponding to the Mineral Resource classifications of M&I and considering other factors where relevant. The deposits' geological models are well constrained. The Ore Reserve classification is considered appropriate given the nature of the deposits, the moderate grade variability, drilling density, structural complexity and mining history. It was therefore considered appropriate to use Measured Mineral Resources as a basis for Proved Ore Reserves and Indicated Mineral Resources as a basis for Probable Ore Reserves.

No Inferred Mineral Resources were included in the Ore Reserve estimate.

## EDIKAN GOLD MINE, GHANA

The Ore Reserve is based on the Edikan Mineral Resources as at 30 June 2023. The Open Pit Ore Reserve is a depletion of the previous Ore Reserves and update on Fetish and Nkosuo deposits. Readers are referred to ASX release "Perseus Updates Mineral Resource and Ore Reserve Estimates" dated 30 August 2022 and the notes contained therein. All Ore Reserves are reported in accordance with the JORC Code and are reported 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 Proven and Probable respectively (CIM, 2010).

The Proved and Probable Ore Reserves for the Edikan Gold Mine are estimated as 32.5 Mt grading 1.08 g/t gold, containing 1.1 Moz of gold. Details of the estimate are shown in **Table 22**.

**Table 22: Edikan Gold Mine Proved and Probable Ore Reserves<sup>4,6</sup>**

DEPOSIT	DEPOSIT TYPE	PROVED			PROBABLE			PROVED + PROBABLE		
		QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz	QUANTITY Mt	GRADE g/t gold	GOLD '000 oz
AF Gap <sup>1,2,3</sup>	Open Pit	1.7	1.11	60	5.9	0.94	178	7.5	0.98	238
Fetish <sup>1,2,3</sup>	Open Pit	2.7	0.92	81	3.2	0.80	82	5.9	0.86	163
Nkosuo <sup>3</sup>	Open Pit	-	-	-	11.2	1.00	358	11.2	1.00	358
<b>Subtotal</b>		<b>4.4</b>	<b>1.00</b>	<b>141</b>	<b>20.2</b>	<b>0.95</b>	<b>618</b>	<b>24.6</b>	<b>0.96</b>	<b>759</b>
Esujah South <sup>2,4</sup>	Underground	1.9	1.37	85	2.8	2.40	217	4.8	1.98	302
Heap Leach <sup>1,5</sup>	Stockpile	-	-	-	2.0	0.60	39	2.0	0.60	39
ROM Stockpiles <sup>5</sup>	Stockpile	1.1	0.82	29	-	-	-	1.1	0.82	29
<b>Total</b>		<b>7.4</b>	<b>1.07</b>	<b>255</b>	<b>25.0</b>	<b>1.09</b>	<b>874</b>	<b>32.5</b>	<b>1.08</b>	<b>1,129</b>

Notes:

- 1 Based on depletion to 30 June 2023 mining surfaces.
- 2 Based on Mineral Resource Estimates which were current at 30 June 2023.
- 3 Variable gold grade cut-offs for each material type, ranging from 0.30 g/t to 0.40 g/t.
- 4 Inferred Mineral Resource is considered as waste.
- 5 Based on EOM June 2023 stockpile balance report.
- 6 Rounding of numbers to appropriate precision may have resulted in apparent inconsistencies.

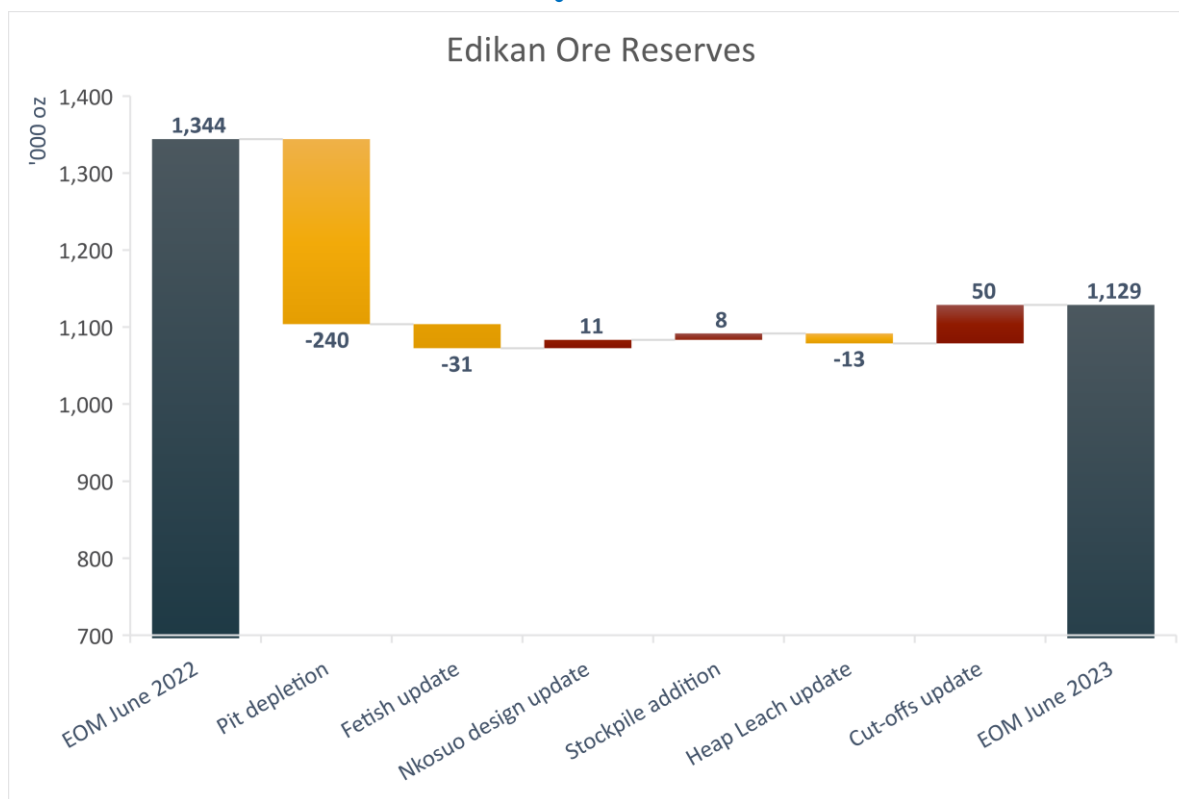
Proved and Probable Ore Reserves are defined within the economic limits of three discrete open pits, an underground project and stockpiles that have been designed based on M&I Mineral Resources that incorporated all available Resource in-fill drilling results, a gold metal price of US\$1,500/oz and mining, processing and general and administration parameters derived from recent operating experience.

The Ore Reserves at Edikan were last reported in the news release “Perseus Updates Mineral Resource and Ore Reserve Estimates” dated 30 August 2022 and the notes contained therein, and comparisons made below are made to this last estimate. Readers are also referred to the NI 43-101 Technical Report for Edikan Operations dated 7 April 2022. Since the last reported, the following changes have occurred:

- Mining depletion has taken place in the AF Gap and Fetish pits up to end of June 2023;
- Stockpiles have been reclaimed in order to keep the processing plant at full capacity;
- Reclaim of old Heap Leach for mill feed blending purposes, and truncation to the southern portion of the ‘Africa pod’ component, which is currently accessible for haulage and treatment;
- Update on Fetish Resource model based on the historical model performance;
- Revised Fetish pit design to comply with the blasting boundary constraints;
- Revised of Nkosuo pit design for operational optimisation; and
- Update of the Edikan Ore Reserves based on new cut-offs.

The changes mentioned above are summarised in **Figure 4** below.

Figure 4: Change in Edikan Ore Reserves – June 2022 to June 2023



### ECONOMIC ASSUMPTIONS

- Gold metal price US\$1,500/oz.
- Un-escalated average costs used in optimising pit designs are as shown in Table 23 below.
- A discount rate of 10% (real) has been assumed for economic valuation.

Table 23: Edikan Gold Mine assumed average operating costs

MINING (OPEN PIT)	MINING (UNDERGROUND)	PROCESSING	G&A	SELLING	ROYALTIES
US\$5.74 /t mined	US\$42 /t mined	US\$10.17 /t milled	US\$2.72 /t milled	US\$3.15 /oz sold	8.25% and 6.5% for Nkosuo

### OPEN PIT MINING PARAMETERS

- The chosen method for the Open Pit Ore Reserves is conventional open pit mining utilising hydraulic excavators and trucks, mining bench heights of 5 metres with 2.5 metre flitches to minimise ore loss and waste rock dilution.
- The economic pit shell was defined using Whittle pit optimisation software (“Whittle”) with inputs such as geotechnical parameters, ore loss and dilution, metallurgical recovery and mining costs, generally based on Perseus’s operating site experience and supporting technical studies.
- The pit optimisation was run with revenue generated only by M&I Mineral Resources. No value was allocated to Inferred Mineral Resources.
- The pit slope design assumptions are based on a geotechnical study by George, Orr and Associates (Australia) Pty Ltd. Overall pit slopes are 30 to 50 degrees inclusive of berms spaced at between 5 and 20 metres vertically and berm widths of 5 to 12 metres.
- Pit ramps have been designed for a 100-tonne payload truck fleet and are set at 24 metres (dual lane) to 16 metres (single lane).
- Vertical mining advance has been capped based on Perseus’s operating experience.
- Minimum mining width of 40 metres was generally applied to the pit cutback designs.

- There are no physical constraints to mining within the lease area. No property, infrastructure or environmental issues are known to exist which may limit the extent of mining within the mining lease.
- Ore cut-off grades are based on the gold price, cost and mining parameters are as shown in **Table 24**.

**Table 24: Open Pit Cut-Off Grades**

DEPOSIT	CUT-OFF GRADE BY ORE TYPE (g/t gold)		
	Oxide	Transition	Fresh
AF Gap	0.30	0.35	0.35
Fetish	0.30	0.40	0.40
Nkosuo	0.30	0.40	0.40
Heap Leach	0.40	-	-

## PROCESSING PARAMETERS

- The process metallurgical recovery for gold is fixed by material type in each deposit. Gold recovery rates range from 55% for oxide ore to 88-90% for primary ore. Recovery variation is a function of differing metallurgical properties of ores from different deposits as shown in **Table 25**.
- No deleterious material has been identified.
- Average annual processing throughput rate of ore is nominally 7.0Mtpa, with throughput rates variable by material type and deposit. The processing circuit involves single stage crushing, semi-autogenous grinding, gravity recovery, flotation, regrind and CIL.

**Table 25: Metallurgical Recoveries by Material Type and Pit**

DEPOSIT	RECOVERY BY ORE TYPE (%)		
	Oxide	Transition	Fresh
AF Gap	61.0	73.0	88.0
Fetish	61.0	73.0	90.0
Nkosuo	55.1	87.6	90.3
Esujah South	-	-	90.0
Heap Leach	67.0	-	-

## UNDERGROUND MINING PARAMETERS

- The chosen method for the Underground Reserves at Esujah South is Sub-level mining under rock fill (“SURF”). SURF is a bulk, semi-selective, underground mining method like sublevel caving (“SLC”) in layout, but with waste being introduced from surface instead of the hanging wall caving.
- The ore is broken through drilling and blasting of regularly spaced, fan shaped up-hole rings along each ore drive similar to a standard SLC method. As ore is extracted from the underground mine, waste fill will be introduced from surface to fill the resulting void. The orebody is accessed through regularly spaced draw points on multiple levels. Draw points are offset between levels to provide a regular, honeycomb layout to ensure maximum recovery of blasted ore.
- Parallel rings are designed along the length of each ore drive. The rings are typically blasted and loaded one at a time, in “choke blast” conditions (i.e., blasting is against the previously mined ring instead of into a free void).
- In total, 69% of the designed ring tonnes are extracted and the remaining 31% is left behind and is mixed with the external dilution and/or the introduced fill. About 91% of the total volume mined from the stope zone is replaced with waste introduced into the pit as part of the SURF method. None of this material is planned to be drawn. Only swell is drawn in sub-economic rings and this improves the remaining grade that is drawn and also the dilution grade for future rings. In total, the mined grade is 99% of the average in-situ grade, which includes lower grade zones that are broken but only partially extracted.
- Geotechnical assessment has been undertaken to assess:
  - Requirements for development ground support;
  - Sublevel intervals;
  - Ore drive spacing;
  - Stand-off distances for infrastructure; and
  - Mine portal access.

- The orientation of geological structures measured from borehole cores, intact rock strengths and the likely in-situ rock stress field have been evaluated. No significant geotechnical factors or influences exist which would exclude the currently proposed underground development and stoping.
- The underground mining will encounter “low” to “moderate” in-situ rock stress conditions. Given that planned SURF operations will be carried out at relatively shallow depths ( $\leq 260$  m below natural surface), rock stress magnitudes are not expected to be a limiting factor to proposed underground mining.
- The underground development and stoping within fresh rocks will be carried out in generally “fair” to “good” quality rock mass conditions.
- Power, air, water and other consumables were estimated based on the calculated mine schedule.
- The operating and capital costs assume a contractor operated mine with most capital equipment being supplied by the mining contractor.
- The Esuajah South underground project greatly benefits from sharing the process plant and general and administration (“G&A”) overheads with the larger Edikan Gold Mine open pit operations. This reduces plant processing operating cost and G&A. It does however make the ESS underground project reliant on being completed in conjunction with the current larger Edikan Gold Mine open pit schedules.
- Additional studies are planned for FY24 to understand the economics of the ESS underground project based on current gold prices and potential changes to other cost inputs.

## STOCKPILE AND HEAP LEACH PARAMETERS

The ROM stockpiles that existed at 30 June 2023 are all fed to the processing plant over the mine life and associated rehandle costs for all material are allowed for.

It is assumed all the Heap Leach material is mined and fed to the processing plant during the mine life based on optimised cashflow and all the material will be rehandled from the current location to be placed on the ROM stockpile.

## CRITERIA FOR ORE RESERVE CLASSIFICATION

Ore Reserves have been classified based on the underlying Mineral Resource classifications and the level of detail in the mine planning. The Mineral Resources were classified as Measured, Indicated and Inferred. The Ore Reserves, based only on the M&I Resources, have been classified as Proved and Probable Ore Reserves, respectively.

The Ore Reserve is classified as Proved and Probable in accordance with the JORC Code, corresponding to the Mineral Resource classifications of M&I and taking into account other factors where relevant. The deposits’ geological models are well constrained. The Ore Reserve classification is considered appropriate given the nature of the deposits, the moderate grade variability, drilling density, structural complexity, confidence in input parameters based on operational experience and mining history. It was therefore considered appropriate to use Measured Mineral Resources as a basis for Proved Ore Reserves and Indicated Mineral Resources as a basis for Probable Ore Reserves.

No Inferred Mineral Resources were included in the Ore Reserve estimate.

## FOREIGN/HISTORICAL ESTIMATES

During the 2022 financial year, Perseus acquired Orca Gold Inc. (Orca) as announced on 28 February 2022, see news release “Perseus enters into agreement to acquire Orca Gold Inc.”. The transaction was completed in May 2022.

The primary asset acquired from Orca is a 70% interest in the Meyas Sand Gold Project (MSGP, formerly Block 14) in northern Sudan near the border with Egypt. Orca announced completion of a feasibility study in accordance with National Instrument 43-101 (“NI 43-101”) on the Meyas Sand Gold Project on September 14, 2020.

The MSGP is a large and scalable resource with a Mineral Resource Estimate<sup>1</sup> consisting of an Indicated Mineral Resource of 79.9 Mt grading 1.3 g/t Au for 3.3 Moz Au and an Inferred Mineral Resource of 18.5 Mt grading 1.2 g/t Au for 0.7 Moz Au. The MSGP has a Probable Mineral Reserve Estimate<sup>1</sup> of 79.9 Mt grading 1.1 g/t Au for 2.9 Moz Au.

<sup>1</sup> These estimates including the tables set out below have been prepared by Orca in accordance with Canadian National Instrument 43-101 standards and have not been reported in accordance with the JORC Code. A competent person has not done sufficient work to classify the resource in accordance with the JORC Code and it is uncertain that following evaluation and/or further exploration work that the estimate will be able to be reported as a mineral resource or ore reserve in accordance with the JORC Code. Please refer to further disclosure required by the ASX Listing Rules together with a more detailed resource table at the conclusion of this announcement. Orca Ore Reserve and Mineral Resource figures are stated on 100% basis.



The Information in this announcement relating to Mineral Resource Estimates for MSGP is contained in a technical report (“Feasibility Study”) entitled “Feasibility Study, NI 43-101 Technical Report, Block 14 Gold Project, Republic of Sudan” prepared by Lycopodium Minerals Pty Limited and is effective as of 31 August 2020. As such, it is reported in accordance with the requirements applying to foreign estimates in the ASX Listing Rules (the “Foreign Estimate”). It is not reported in accordance with the 2012 edition of the Joint Ore Reserves Committee’s Australasian Code for Reporting of Mineral Resources and Ore Reserves (“JORC Code”). This news release and all technical information regarding Orca’s NI 43-101 have been reviewed and approved by Adrian Ralph and Hans Andersen, each a Qualified Person for the purposes of NI 43-101.

**Table 26: Summary of Meyas Sand Gold Project Mineral Resource**

	Indicated					Inferred				
	Mt	Au g/t	Ag g/t	Au koz	Ag koz	Mt	Au g/t	Ag g/t	Au koz	Ag koz
Oxide	10.2	1.35	1.49	443	487	1.1	1.0	1.2	34	41
Trans.	13.4	1.22	1.33	527	575	1.5	1.0	1.2	50	57
Fresh	56.3	1.31	1.82	2,371	3,296	15.9	1.2	1.6	626	838
<b>Total</b>	<b>79.9</b>	<b>1.30</b>	<b>1.70</b>	<b>3,342</b>	<b>4,358</b>	<b>18.5</b>	<b>1.2</b>	<b>1.6</b>	<b>711</b>	<b>936</b>

**Notes:**

- Based on September 2018 estimates of Galat Sufar South and Wadi Doum Mineral Resources by MPR Geological Consultants Pty Ltd.
- 0.6 g/t cut-off grade applied to all material types.
- Estimates are not depleted for artisanal mining, the impact of which is not considered material.
- Galat Sufar South Mineral Resource estimates are truncated at 350 m depth, with around 90% of Indicated and Inferred resources occurring at depths of less than 240 and 300 m respectively. Wadi Doum estimates extend to around 255 m depth, with around 90% of Indicated and Inferred resources occurring at depths of less than 115 m and 190 m respectively. The depth limits imposed on the estimates are considered to largely confine the estimates to material with reasonable prospects of eventual economic extraction.
- Indicated Mineral Resources are inclusive of Mineral Reserves.
- Rounding of numbers to appropriate precisions may have resulted in apparent inconsistencies.

**Table 27: Summary of Meyas Sand Gold Project Mineral Reserves**

Project	Classification	Oxide		Transitional		Fresh		Total	
		'000 tonnes	Au g/t	'000 tonnes	Au g/t	'000 tonnes	Au g/t	'000 tonnes	Au g/t
Main	Probable	4,347	1.27	5,088	1.19	13,488	1.31	22,923	1.28
East	Probable	8,302	0.89	11,236	0.89	30,729	1.05	50,267	0.99
North East	Probable	1,606	0.84	2,192	0.85	367	0.90	4,166	0.85
<b>Total GSS</b>	<b>Probable</b>	<b>14,255</b>	<b>1.00</b>	<b>18,516</b>	<b>0.97</b>	<b>44,584</b>	<b>1.13</b>	<b>77,356</b>	<b>1.07</b>
<b>Wadi Doum</b>	<b>Probable</b>	<b>527</b>	<b>1.90</b>	<b>119</b>	<b>2.37</b>	<b>1,941</b>	<b>2.49</b>	<b>2,588</b>	<b>2.36</b>
<b>Block 14 Total</b>	<b>Probable</b>	<b>14,783</b>	<b>1.03</b>	<b>18,635</b>	<b>0.98</b>	<b>46,525</b>	<b>1.19</b>	<b>79,943</b>	<b>1.11</b>

**Notes:**

- Based on Mineral Reserve Statement 7 November 2018.
- CIM Definition Standards were followed for the classification of Mineral Reserves.
- Mineral Reserves were optimised using a gold price of \$1,100/oz.
- Mining Cut-off grades vary between 0.32 g/t and 0.90 g/t.
- Rounding of numbers to appropriate precisions may have resulted in apparent inconsistencies.

Through the acquisition of Orca, Perseus now also owns a 17.8% interest in TSXV listed Montage which announced completion of a feasibility study at its cornerstone Koné Gold Project, located in Côte d’Ivoire, on February 14 2022 in accordance with NI 43-101. Refer to Montage’s website for information relating to the Mineral Resource estimates completed by Montage on the Koné Gold Project.

**This announcement was approved for release by the Managing Director and Chief Executive Officer, Jeff Quartermaine.**

## TECHNICAL DISCLOSURE:

All Mineral Reserves and Mineral Resources were calculated as of 30 June 2023 and have been calculated and prepared in accordance with the standards set out in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves dated December 2012 (the "JORC Code") and in accordance with National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101"). The JORC Code is the accepted reporting standard for the Australian Stock Exchange Limited ("ASX").

The definitions of Ore Reserves and Mineral Resources as set forth in the JORC Code have been reconciled to the definitions set forth in the CIM Definition Standards. If the Mineral Reserves and Mineral Resources were estimated in accordance with the definitions in the JORC Code, there would be no substantive difference in such Mineral Reserves and Mineral Resources.

## COMPETENT PERSON STATEMENT:

The information in this report that relate to Mineral Resources for the Edikan Gold Mine and the Sissingué Gold Mine (including Fimbiasso and Bagoé) is based on, and fairly represents, information and supporting documentation prepared by Matt Bampton, a Competent Person, employee of Cube Consulting and Member of the Australian Institute of Geoscientists. Mr Bampton, has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'" and to qualify as a "Qualified Person" under National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). Matt Bampton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Mr Bampton has visited the Edikan Gold Mine and Yaouré Gold Mine during June 2023, but has not visited Sissingué due to travel restrictions.

The information in this report that relates to Ore Reserves for Edikan Gold Mine and the Sissingué Gold Mine (including Fimbiasso and Bagoé) is based on information compiled by Mr Quinton de Klerk, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr de Klerk is a full-time employee of Cube Consulting. Mr de Klerk has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" and a Qualified Person as defined in NI43-101. Mr de Klerk consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr de Klerk has visited the Edikan Gold Mine and Yaouré Gold Mine during June 2023, but has not visited Sissingué due to travel restrictions.

The Company confirms that material assumptions underpinning the estimates of Ore Reserves described in "Technical Report — Edikan Gold Mine, Ghana" dated 7 April 2022 and in "Technical Report — Sissingué Gold Project, Côte d'Ivoire" dated 28<sup>th</sup> March 2022 continue to apply.

The information in this report that relates to the Open Pit and Underground Mineral Resources and the Open Pit and Underground Ore Reserves at Yaouré Gold Mine was updated by the Company in a market announcement "Perseus Mining announces Open Pit and Underground Ore Reserve growth at Yaouré" released on 23 August 2023. The Company confirms that all material assumptions underpinning those estimates and the production targets, or the forecast financial information derived therefrom, in that market release 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 — Yaouré Gold Project, Côte d'Ivoire" dated 18 December 2017 continue to apply.

### **Meyas Sand Gold (formerly Block 14) Project – Foreign/historical estimates**

The information in this report that relates to the Mineral Resources and Probable Reserves of the Block 14 Project was first reported by the Company in a market announcement "Perseus Enters into Agreement to Acquire Orca Gold Inc." released on 28 February 2022. The Company confirms it is not in possession of any new information or data relating to those estimates that materially impacts of the reliability of the estimate of the Company's ability to verify the estimate as a Mineral Resource or Ore Reserve in accordance with Appendix 5A (JORC Code) and the information in that in that original market release continues to apply and have not materially changed. These estimates are prepared in accordance with Canadian National Instrument 43-101 standards and have not been reported in accordance with the JORC Code. A competent person has not done sufficient work to classify the resource in accordance with the JORC Code and it is uncertain that following evaluation and/or further exploration work that the estimate will be able to be reported as a Mineral Resource or Ore Reserve in accordance with the JORC Code. Mr Andersen and Mr Ralph have reviewed this press release and all technical information regarding Orca's NI 43-101 Foreign/historical estimate and this information is approved by Adrian Ralph and Hans Andersen, each a Qualified Person for the purposes of NI 43-101. Mr Andersen and Mr Ralph have visited the Meyas Sand Gold Project on several occasions, most recently during April and February 2023 respectively.

## 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 Yaouré Gold Mine, the Edikan Gold Mine and the Sissingué Gold Mine without any major disruption, 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.*

ASX/TSX CODE: PRU

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