

# **UPDATE TO ASX RELEASE ON MORILA RESOURCE**

Firefinch Limited (Firefinch, or the Company) would like to take the opportunity to clarify the announcement to ASX of 8 February 2021 entitled "2.2 million ounce resource estimate transforms Morila" (Announcement).

The Company stated in that announcement that "studies (are) to commence to target production of 150,000 – 200,000 ounces from a Morila Superpit using existing infrastructure".

For the purposes of Listing Rule 5.16.1 and 5.17.1 the Company wishes to restate this Production Target and consolidate the material assumptions upon which this production target is made to provide greater clarity to investors. Other than costs assumptions used in pit optimisations the assumptions upon which the production target is based have been stated in the Announcement as well as in prior ASX announcements, specifically those of 31 August 2020 and 7 September 2020. Investors who wish, may find extensive further relevant disclosure in the JORC Table 1 attached to these releases.

# Material Assumptions and Facts on which the Production target is based

# **Mineral Resources**

The company has disclosed Resource Estimates for the main Morila deposit, satellite pits and tailings in the announcements listed above. These resources include some 25.6 million tonnes at 1.46g/t gold for 1.24 million contained ounces of gold in the Measured and Indicated category (refer Table 1 below). There is sufficient tonnage within these classifications to supply the Morila mill at its nameplate capacity of 4.5 million tonnes per annum for at least 5 years. These Measured and Indicated resources underpin 100% of the production target and no Inferred Resources are considered in setting the Production Target.

These estimates were, as disclosed in the Announcement, prepared by a Competent Person in accordance with the requirements of the JORC code. A Competent Person has also signed off on the Production Target (refer Competent Person sign-off below).

All Mineral Resources are constrained within conceptual pit shells to meet the reasonable prospects of eventual economic evaluation (RPEEE) criteria under the JORC Code.

# **Mining Factors and Assumptions**

The Mineral Resource at the Morila pit is contained within conceptual pit shell generated at a gold price of US\$1800 per ounce of gold which is similar to the prevailing gold price (for example the LBMA PM fix price was US\$1802.95 per ounce of gold on the on Friday 5<sup>th</sup> February). The gold price in the last 6 months has ranged between US\$1776/oz and US\$2035/oz).

The conceptual pit shell was generated by Whittle pit optimisation software and is much larger than the Indicated Resource as it also includes Inferred Resources. However, the Production Target is not dependent on Inferred Resources as detailed above. Specifically, the Indicated Resources are not located at the extremities of the conceptual pit shell (refer Figure A.2 of the Announcement) and no Inferred Resources need to be mined to access the Indicated Resources. No detailed pit design has yet been completed, once a pit design and associated works have been completed during the quarter an Ore Reserve may be able to be declared.



Mining costs used in the pit optimisations were informed by recent mining tenders for mining at Morila and industry comparisons. Actual costs are commercial in confidence until the tender process is completed. All other costs used in the pit optimisation were actual processing and administration costs from current Morila operations along with prevailing royalties to the state of Mali.

## Mining and Processing Rates

Assumptions for processing rates are based on the nameplate throughput for the currently operating Morila processing plant, namely 4.5 million tonnes per annum. The plant has operated continuously at this throughput from 2000 to 2016 treating similar material to that considered here. From 2016 the plant has been treating tailings and pit ore at similar or higher throughputs. The base case for mining rates in the life of mine plan as well as for any studies on additional mineralisation (refer below) will be to provide ore to the plant to match this processing rates. The plant is currently in operation and there is no reason for the Company to forecast that this plant will not operate at the assumed processing rate.

#### Metallurgical Recoveries

The Morila pit and the satellite deposits (N'Tiola, Viper and Domba) have been mined and processed previously, as recently as 2018. The material planned to be mined at Morila and its satellites is identical and continuous with that previously mined material. There are extensive production records that document an average metallurgical recovery of 90-92%, along with metallurgical testwork carried out during the life of the operation. The production records relate to processing of over 50 million tonnes of ore and consequently gold recoveries are assumed to be 90 - 92% when mining of this material resumes.

# <u>Infrastructure</u>

Morila has all the infrastructure, workforce, systems and processes required of a remote operating mine and processing plant. It has invested heavily in surrounding communities. Costs are well understood based on 20 years of continuous operations. Firefinch has previously informed the market on the refurbishment activities underway at Morila to permit the resumption of crushing and grinding by mid-year. Current gold production is from tailings reprocessing and does not require crushing and grinding.

#### **Operating Cost Estimates**

Operating cost assumptions used in the Whittle pit optimisation to generate the Production Target were based on actual costs for processing, administration and other overheads incurred at Morila in the December Quarter (approximately US\$15 million; see Quarterly Activities report 29 January 2020), historical comminution costs adjusted to current energy prices, and mining costs informed by mining tenders (commercial in confidence) and industry comparisons.

The resultant average operating costs per tonne of ore is expected to be US\$22.0/t in oxide and US\$23.5 in fresh rock.

Corporate tax in Mali is 30% and the royalty regime equates to approximately 6% on gold revenues.

# **Capital Cost Estimates**

Capital costs for the ramp-up of the operation are in the process of being estimated to an appropriate level of accuracy. The precision of the estimate is higher for near-term activities than those for the



Morila pit. The mine design and Ore Reserve studies in progress will inform the capital required to commence mining at the Morila pit.

Current capital cost estimates are:

- Preparing the processing plant and associated infrastructure, tailings storage facilty(TSF), and satellite pit dewatering for a re-start of ore processing in mid 2021 is approximately US\$5-6 million. Note this expenditure has commenced and some US\$1-2 million has been expended to date.
- Establishment of a 2 kilometre haul road and pre-strip of two or more satellite pits prior to ore presenting at the Morila plant is estimated at US\$15-20. million.
- Estimates of costs incurred in pit cut backs, dewatering and associated activities to commence mining at the Morila pit is US\$30 to 40 million. It is anticipated that mining studies and schedules will enable Morila ore to present early, generate revenues and the allocation of expenditure at Morila pit between capital and operating may change.
- Establishing short and medium term TSF solutions are estimated to be approximately US\$5
  million. Long term solutions are being assessed.

The Morila mine is currently generating surplus cash from current operations with further cashflows anticipated from satellite pit mining scheduled to commence mid-year and from the Morila pit once operations commence.

Should additional capital be required, Firefinch expects that debt funding for an economic gold development of the scale envisaged will be available. Initial discussions with debt providers indicate that there is appetite for funding a producing operation with a 20 year production history and substantial Mineral Resources.

Firefinch also raised A\$74 million from the issue of new equity before costs in August to October 2020 indicating investor support for investing in mining at Morila. The market capitalisation of Firefinch has more than doubled since that raising was initiated.

#### **Production Target**

The Production Target is derived using the below

- 4.5 million tonnes per annum mining and processing rate (refer above),
- a head grade of 1.3-1.5g/t gold (corresponding to the range of grades of Mineral Resources),
- a recovery of 90% (refer above).

This corresponds to production of 169,000 to 195,000 ounces per annum, which was rounded to 150,000 - 200,0000 ounces for the purposes of the announcement.

#### **Studies**

The Announcement refers to a number of studies the Company is currently undertaking. For clarity, the studies referred to in the Announcement relate firstly to undertaking detailed design, schedule, costs and Ore Reserves Estimates for the Indicated component of the Morila Resource and second; evaluating the potential for Inferred Resources to be mined in addition to the Production Target. It is industry standard practice to commence such studies after Mineral Resource estimates are published.



The studies on Inferred Resources will be dependent on the results of drilling of these resources. Should drilling be successful the Inferred Resources will be able to be upgraded to a higher category such that they can be added to the Ore Reserves and Production Target, however there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources.

The current Production Target relates to over 5 years of mine life based 100% on Measured and Indicated Resources with any future conversion of Inferred Resources representing an opportunity for extension this mine life. As the Morila Mine is an ongoing operation and substantial capital expenditure is not required to commence the mining of the Morila Pit there is no minimum mine life required to be attained.

Table 1. Morila Gold Project Mineral Resources.

Deposit	Measured or Indicated <sup>1</sup>			Inferred			Total		
	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)
Morila Pit <sup>2</sup>	21.2	1.60	1,090	17.5	1.37	770	38.6	1.50	1,860
Morila NE <sup>3</sup>				0.21	3.07	21	0.21	3.07	21
Samacline <sup>3</sup>				3.74	2.56	308	3.74	2.56	308
Tailings <sup>4</sup>	3.15	0.50	51				3.15	0.50	51
N'Tiola <sup>5</sup>	0.75	1.35	33	0.38	1.06	13	1.13	1.25	45
Viper ⁵	0.67	1.31	28	0.29	1.59	15	0.96	1.39	43
Domba <sup>5</sup>	0.20	1.75	11	0.25	1.61	13	0.46	1.67	25
Total	25.6	1.46	1,214	22.3	1.58	1,136	48.3	1.52	2,350

<sup>&</sup>lt;sup>1</sup>Of the Measured and Indicated Resources, the Tailings Mineral Resource is classified as Measured, all other resources in this column are classified as Indicated.

<sup>&</sup>lt;sup>2</sup> The Morila Pit resource is quoted using a 0.4g/t gold cut-off grade, further information in the announcement of 8 February 2021.

<sup>&</sup>lt;sup>3</sup> The Samacline and Morila NE resources are quoted using a 1.8g/t gold cut-off grade, further information in the announcement of 8 February 2021.

<sup>&</sup>lt;sup>4</sup> The Tailings resource is entirely in the Measured classification and is quoted using a 0.3g/t gold cutoff grade, further information in the announcement of 7 September 2020.

<sup>&</sup>lt;sup>5</sup> The N'Tiola, Viper and Domba resources are quoted using a 0.5g/t gold cut-off grade, further information in the announcement of 24 November 2020.

<sup>&</sup>lt;sup>6</sup> Numbers in the above table may not appear to sum correctly due to rounding.



## **Competent Persons Declaration**

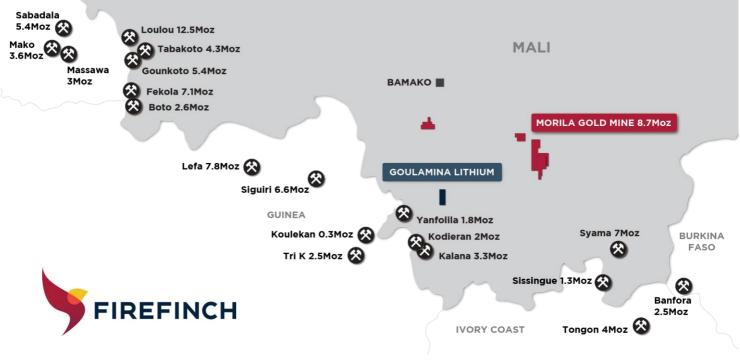
The information in this announcement that relates to the Mineral Resources contained within the Production Target complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and is based on information compiled by Mr Bill Oliver BSc (Hons), an employee of Firefinch Limited. Mr Oliver is a member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity 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 ('the JORC Code')". Mr Oliver consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This announcement has been approved for release to ASX by the Board.

For further information contact:

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# **ABOUT FIREFINCH**

Firefinch is a Mali focussed gold miner and lithium developer. It has an 80% interest in the Morila Gold Mine which has produced 7.5 million ounces of gold from continuous production since 2000. Firefinch is ramping up production at the 4.5mtpa mill and mine from a current annual production profile of 40,000 ounces of gold per annum from tailing treatment towards a target of 80 to 90,000 ounces of gold per annum from small open pits, stocks and tailings. In 2022, the company plans to further increase production by re-commencing mining from the main Morila pit to fully exploit the 2.4 million ounces of gold in the Global Resource at Morila.

Morila was one of the world's highest grade open pits 12 to 20 years ago but its limits are not well understood. Exploration will be a major focus at Morila, its satellite resources and multiple targets on the 685km<sup>2</sup> of surrounding tenure.

The Goulamina Lithium Project is one of the world's largest undeveloped deposits and has the potential to be one of the lowest cost producers. All permits are in place, a Definitive Feasibility Study is complete and a Global Resource of 109 million tonnes at 1.45% Li<sub>2</sub>O with 1.57 million tonnes of contained Li<sub>2</sub>O has been declared.

Firefinch is a responsible miner. We support positive social and economic change through contributing to the communities in which we operate. We seek to buy local, employ local and safeguard the environment and our people's health, safety and wellbeing.

The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources at Goulamina and Morila and the production estimates for Goulamina. The Company also confirms that all material assumptions and parameters underpinning the Mineral Resource estimates and production estimates continue to apply and have not materially changed. Please refer to ASX Announcements of 8 July 2020 and 20 October 2020 (Goulamina), 8 February 2021 (Morila), 26 November 2020, 7 September 2020 (Morila Tailings), 24 November 2020 (N'Tiola, Viper, Domba), 8 January 2021 (Gold Production) and 22 January 2021 (N'Tiola).

**ASX: FFX**