

2021 Mineral Resource and Ore Reserve Statement

- **Morila Gold Project total Mineral Resources of 2.5 million ounces of contained gold**
 - **Indicated 27.4 million tonnes at 1.49g/t gold for 1.3 million ounces**
 - **Inferred 23.2 million tonnes at 1.56g/t gold for 1.2 million ounces**
- **Total Ore Reserves of 1.1 million ounces of contained gold**
 - **Probable Ore Reserves of 23.8 million tonnes at 1.40g/t**
- **Mineral Resource Estimate for Morila Deposit to be updated during Q2 2022 leading to new Ore Reserves and a re-optimisation of the Life of Mine Plan for Morila**

Firefinch Limited (ASX: FFX) (**Firefinch** or **the Company**) is pleased to publish the Mineral Resource and Ore Reserve statement for the Morila Gold Project (**Morila**) for the year ending 31st December 2021.

Summaries and sources for all estimated Mineral Resources and Ore Reserves are set out in the attached tables and appendices.

Table 1: Mineral Resources for the Morila Gold Project

Deposit	Indicated			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 ¹	21.2	1.60	1,090	17.5	1.37	770	38.6	1.50	1,860
Morila NE ²				0.21	3.07	21	0.21	3.07	21
Samacline ²				3.74	2.56	308	3.74	2.56	308
Morila Pit 5 ^{3,4}	0.40	0.92	12	0.14	1.14	5	0.54	0.98	17
N'Tiola ^{3,4}	2.55	1.03	84	0.35	1.04	12	2.90	1.04	96
Viper ³	2.47	1.16	92	0.75	1.10	27	3.23	1.15	119
Domba ⁵	0.20	1.75	11	0.25	1.61	13	0.46	1.67	25
Koting ⁴	0.65	1.04	22	0.28	0.94	8	0.93	1.01	30
Total	27.45	1.49	1,313	23.17	1.56	1,160	50.62	1.52	2,474

¹ The Morila Pit resource is quoted using a 0.4g/t gold cut-off grade, refer ASX Announcement 8th February 2022.

² The Samacline and Morila NE resources are quoted using a 1.8g/t gold cut-off grade, refer ASX Announcement 8th February 2022.

³ The N'Tiola, Viper, Pit 5 and Koting resources are quoted above cut-off grades based on current costs (0.35 – 0.5g/t), refer ASX Announcements 3rd May 2021 and 25th March 2022.

⁴ The Viper and Pit 5 resources have been depleted for mining as at 31 December 2021.

⁵ The Domba resource is quoted using a 0.5g/t gold cut-off grade, refer ASX Announcement 24th November 2020.

NB Numbers in the above table may not appear to sum correctly due to rounding.

For personal use only

Table 2: Ore Reserves for the Morila Gold Project

Deposit	Proved			Probable			Total		
	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)
Morila Pit ¹				19.8	1.47	932	19.8	1.47	932
N'Tiola ²				2.13	0.76	74	2.13	1.08	74
Viper ^{3,4}				1.20	0.97	37	1.30	1.46	43
Koting ³				0.63	0.98	20	0.63	0.98	20
Total				23.8	1.40	1,070	23.8	1.40	1,070

¹ The Morila Ore Reserve is quoted using a 0.43 g/t gold cut-off grade, refer ASX Announcement 5th May 2021.

² The N'Tiola Ore Reserve is quoted using a 0.51 g/t gold cut-off grade, refer ASX Announcement 5th May 2021.

³ The Viper and Koting Ore Reserves are quoted using a 0.49 g/t gold cut-off grade, refer ASX Announcement 5th May 2021.

⁴ The Viper Ore Reserve has not been depleted for mining to 31st December 2022, a total of 8,000 ounces.

NB Numbers in the above table may not appear to sum correctly due to rounding.

Comparison with previous Mineral Resource Estimates

Table 3 compares the Mineral Resource Estimates (**MREs**) at 31st December 2021 to the Mineral Resources stated in the 2020 Annual Report¹.

Table 3. Comparison of total Mineral Resources

Deposit	31 st Dec 2021	31 st Dec 2020	Comment
	Contained Ounces	Contained Ounces	
Morila (combined)	2,190,000	2,190,000	Update in progress
Tailings	-	51,000	Depletion by mining
Viper	119,000	43,000	Resource updated, depleted by mining
N'Tiola	96,000	45,000	Resource updated
Morila Pit5	17,000	-	Depletion by mining
Domba	25,000	25,000	No change
Koting	30,000	-	Resource published May 2021
Total	2,474,000	2,350,000	

Morila: Mineral Resources for the Morila Deposit were published in February 2021². The Company has carried out an extensive drilling campaign at the Morila Deposit which is ongoing as at the date of this statement. The Mineral Resource will be updated with the results of this drilling during the first half of 2022. No mining has been carried out at Morila during 2021, with stripping of waste commencing in January 2022, and the Mineral Resource remains current.

¹ Refer to ASX announcement dated 1st April 2021.

² Refer to ASX announcement dated 8th February 2021.

For personal use only

Tailings: Mining of the Morila Tailings was carried out during 2021. Mining is largely completed as at the date of this statement, with only minor clean-up of the dam floor remaining. Accordingly the Mineral Resource has been removed from the statement.

Viper: An updated MRE for the Viper Deposit was recently published³. The MRE was depleted for mining as at 31st December 2021.

N'Tiola: An updated MRE for the N'Tiola Deposit was recently published⁴. No mining has been carried out at N'Tiola during 2021.

Domba: The MRE for Domba was published in November 2020⁵. No drilling or mining has been carried out at Domba during 2021 and the MRE remains current.

Beledjo-Koting: The MRE for Beledjo-Koting Deposit was published in May 2021⁶. No drilling or mining has been carried during 2021 and the MRE remains current. A programme of grade control drilling was completed in early 2022, which will be used to refine the resource model for mining purposes.

Comparison with previous Ore Reserve Estimates

The Company announced its first Ore Reserves for Morila in May 2021⁷ and these remain current as at the date of this statement. The Ore Reserve for Morila will be updated following the current update to the Morila MRE. The smaller Ore Reserves for Viper and N'Tiola are currently being updated using the MREs recently released as well as current modifying factors such as prevailing gold price assumptions and actual costs from the Morila operation. A total of 8,000 ounces was produced from Viper during 2021, with the forthcoming Ore Reserve to be depleted by mining. All other production in 2021 was sourced from areas outside the Ore Reserves (Tailings, Morila Pit 5). Table 4 compares the Ore Reserves as at 31st December 2021 to those in the 2020 Annual Report.

Table 4. Comparison of Ore Reserves

Deposit	31 st Dec 2021	31 st Dec 2020	Comment
	Contained Ounces	Contained Ounces	
Morila Open Pit	932,000	-	Awaiting updated resource
Viper	43,000	-	Update in progress
N'Tiola	74,000	-	Update in progress
Koting	20,000	-	Reserve published May 2021
Total	1,070,000	-	

³ Refer to ASX announcement dated 25th March 2022.

⁴ Refer to ASX announcement dated 25th March 2022.

⁵ Refer to ASX announcement dated 24th November 2020.

⁶ Refer to ASX announcement dated 3rd May 2021.

⁷ Refer to ASX announcement dated 5th May 2021.

For personal use only

Summary of Resource Estimation Parameters

As per ASX Listing Rule 5.8 and the 2012 JORC Code, a summary of the material information used to estimate the Mineral Resource is detailed below. Further details can be found in Appendix 1.

Geology & Geological Interpretation: The N'Tiola and Viper deposits are hosted within metasedimentary packages with alternating fine, medium and coarse-grained beds. Mineralisation is associated with shearing of these metasediments and is broadly steeply dipping parallel to shearing, with flatter structures also present. Mineralisation has been interpreted from section to section based on both geological and assay criteria, using a lower cut-off grade of 0.3g/t gold.

Drilling, Sampling and Sub-sampling Techniques: Mineralisation at the N'Tiola and Viper deposits has been defined by both RC and diamond drilling. Initial exploration drilling at all prospects was detailed in the ASX Announcement of 24th November 2020, with Firefinch completing infill and extensional RC drilling from December 2020 to the present. All available drilling data is used in the resource estimates.

Sample Analysis: All samples used in the resource estimates were analysed at accredited commercial laboratories. Standard sample preparation techniques were used with a 50g sub sample fire assayed and the bead analysed by AAS. Quality control protocols for all drilling included the use of certified reference materials, blanks and duplicates.

Estimation Methodology: Block grades were estimated using Ordinary Kriging. Search ellipses were based on variography. The block model size used for all deposits was 2.5m by 5m (or 10m at Viper) Y by 2.5m Z corresponding to the expected selective mining unit (SMU).

Mining & Metallurgical Methods and Other Factors: The Mineral Resources are based on open pit mining with all mineralised material being processed through the existing, operational, Morila processing plant. It is assumed that mining rates, processing rates, recoveries and other mining and metallurgical parameters will be similar to historical and current performance. To ensure reasonable prospects for eventual economic extraction, all resources have been constrained using pit optimisation shells developed at a range of gold prices as forecast over the next 12 - 24 months along with best estimates for mining, processing and administration costs over the same period.

Classification & Cut-off Grade: The Mineral Resources have been classified as Indicated and Inferred. It is anticipated that the resources could achieve a higher level of classification with infill drilling and verification of the extent of historical mining. The Mineral Resources have been depleted using pit surveys as of 31st December 2021 provided by the Morila survey department. The cut-off grade used was based on current costs at Morila along with the current and forecast gold price and varies for each deposit due to their differing distance from the plant. The cut off grades are between 0.35 – 0.5g/t gold.

For personal use only

Summary of Ore Reserve Parameters

The Morila Super Pit and satellite pits will be mined by open pit methods. Ore and waste will be mined using a conventional mining fleet provided by mining contractors. Firefinch will supervise mining and ore production and undertake grade control activities.

The mining contractor will supply a fleet of excavators matched to the truck fleet, which will vary from 100 tonne class to potentially 190 tonne class dump trucks for the Morila Super Pit. At the Morila Super Pit, ore will be predominantly direct tipped to the primary crusher, with some stockpiling at the crusher run of mine stockpiles whereas satellite pit ore will be hauled to the plant ROM pad from the pit stockpile utilising a 40-tonne road truck fleet. The majority of ore will require drill and blast via track mounted blasthole drill rigs with grade control undertaken with track mounted RC drill rigs.

Resource models were imported to Whittle for optimisation purposes and a mining dilution of 10% and mining ore loss of 2% was then applied. This represents a reasonable modifying factor for the assumed selective bench height. Mining costs and ore haulage costs to the plant were derived from those supplied by the executed tenders for the mining contract for the satellite pits as applied on a bench by bench basis. Additional costs were applied for ore rehandle, grade control and other mining related oncosts.

Processing rates and recoveries were derived from test work undertaken by the previous project owners and historical processing performance. An overall average recovery of 91% was used. Processing costs were derived from past operating experience at the Morila process plant adjusted for current consumables and personnel costs. General and Administration costs are based on actuals at the Morila site. Malian state royalties and taxes are those currently applicable and payable by Morila.

Pit slopes adopted were based on those used in the prior mining of the Morila, Viper and N'Tiola pits and independent geotechnical assessments commissioned by the previous owners. Data is currently being collected during mining by the onsite team and is reviewed by an independent geotechnical consultant to confirm if any adjustments to design are required.

The pit shell used for the Morila pit design was selected on the basis of revenue factors with an economically robust shell selected which provides an acceptable mining life at the processing rate of the Morila plant. For the satellite deposits pit shells were selected on the basis of maximum cashflow given the short life of the pits. As the initial focus for Firefinch is both on value and maintaining plant feed this was considered a prudent approach. From the pit shells, a practical final pit design was developed and formed the basis of the Ore Reserve estimate. This was considered practical as mining production rates would be low at this point in the mining sequence.

The cut-off grade applied for the determination of Ore Reserves for Morila was 0.43 g/t gold, which is lower than the satellite deposits as there is no overland ore haulage required. For the satellite deposits, cut-off grades applied for the determination of Ore Reserves were calculated for each deposit on the basis of the optimisation parameters. These ranged from 0.48 to 0.51 g/t gold depending on depth within the pit and pit location.

Waste dumps were designed in conjunction with pit designs with an overall slope of 18° to 20° to minimise recontouring requirement for rehabilitation.

For Morila, the pit design from which the Ore Reserve is derived only intersects the existing waste dump in the north-western corner of the pit and requires minimal rehandle of this dump. Any dump relocation provides an opportunity for best practice rehabilitation practices to be implemented.

For personal use only

Water removal from the existing Morila pit is via diesel and electric pumps with discharge in accordance with current permits. Water quality is suitable for agricultural use. Some 9 million cubic metres of water is to be removed prior to commencing mining at a total initial cost of approximately US\$3 million. This cost is built into the LOMP financial model and the dewatering schedule is determined by the mining schedule.

Process tailings have been placed into the existing Morila pit by the previous owners. Some 39 million tonnes of material are required to be moved from the pit to the tailings dam as mining progresses. Suction barges will be used to remove tailings for deposition in the existing tailings dam. Costs are accommodated within the LOMP financial model and the rate of extraction will be linked to the mining schedule.

Approximately 4 million tonnes of waste rock has also been placed in the Morila pit as part of previous mining operations which will be removed by truck and excavator as part of future mining operations. Lower productivities can be expected in these areas and therefore an allowance has been included in financial modelling to cover for the resulting additional costs.

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

For Enquiries

Dr Michael Anderson
Managing Director
Firefinch Limited
info@firefinchlimited.com
+61 8 6149 6100

Dannika Warburton
Principal
Investability Partners
info@investability.com.au
+61 401 094 261

Forward Looking Statements

This announcement contains certain forward-looking statements with respect to Firefinch's financial condition, results of operations, production targets and other matters that are subject to various risks and uncertainties. Actual results, performance or achievements could be significantly different from those expressed or implied by those forward-looking statements. Such forward looking statement are no guarantees of future performance and involve known and unknown risks, uncertainties, and other factors beyond the control of Firefinch that may cause actual results to differ materially from those expressed in the forward-looking statements in this announcement.

Competent Persons Declarations

The information in this announcement that relates to Exploration Results (except for Viper and Beledjo-Koting) is based on information compiled under the supervision of Mr Bill Oliver. Mr Oliver is an employee of Firefinch Limited and a member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy. Mr Oliver 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.

The information in this announcement that relates to Exploration Results at Beledjo-Koting and Viper as well as the Mineral Resources at Beledjo-Koting is based on information compiled by Mr Simon McCracken. Mr McCracken is an employee of Firefinch Limited and a member of the Australian Institute of Geoscientists. Mr McCracken 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 JORC Code. Mr McCracken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources (except for Morila and Beledjo-Koting) is based on information compiled by Mr Kerry Griffin. Mr Griffin is an employee of Firefinch Limited and a member of the Australian Institute of Geoscientists. Mr Griffin 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 JORC Code. Mr Griffin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resource estimation and classification for the Morila Deposit is based on information compiled by Paul Blackney. Paul Blackney is an employee of Optiro Pty Ltd, consultants to the Company, and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Blackney 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 JORC Code. Paul Blackney consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Ore Reserves at Morila, N'Tiola, Viper and Koting is based on information compiled by Mr Ross Cheyne. Mr Cheyne is an employee of Orelogy Consulting Pty Ltd and is a Fellow of the Australian Institute of Mining and Metallurgy (Membership # 109345). Mr Cheyne 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 JORC Code. Mr Cheyne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For personal use only



Firefinch (ASX: FFX) is a Mali focussed gold miner and lithium developer. Firefinch has an 80% interest in the Morila Gold Mine (**Morila**) and it currently owns 100% of the Goulamina Lithium Project (**Goulamina**).

The Morila Gold Mine is one of the world’s great open pit gold mines, having produced over 7.5Moz of gold since 2000 at grades that were among the highest in the world, earning it the moniker “Morila the Gorilla”. Firefinch acquired Morila for just US\$28.9 million in late 2020 with the strategic intent to rapidly increase production; initially targeting 70-90kozpa of gold from a combination of satellite pits, stocks and tailings, and thereafter growing production to 150-200kozpa of gold by mining the Morila Superpit. Morila’s current Global Resource is 2.5 million ounces of gold (Indicated: 27.4Mt at 1.49g/t gold for 1.3Moz and Inferred: 23.2Mt at 1.56g/t gold for 1.2Moz). However, Morila’s geological limits have not been tested. Exploration is therefore a major focus at the existing deposits and multiple targets on the 685km² of surrounding tenure.

Goulamina is one of the world’s largest undeveloped high quality spodumene deposits. In partnership with Ganfeng, Firefinch will bring the project into production. A 50/50 incorporated joint venture has been established, with Ganfeng contributing US\$194 million in development funding, comprising US\$130 million in equity funding and US\$40-64 million in debt funding. All permits are in place and the Definitive Feasibility Study Update confirmed Goulamina as a long life, large scale and low-cost open pit project expected to produce 726,000 tonnes of spodumene concentrate at an average cash cost of US\$312/t. Goulamina has high grade, low impurity Ore Reserve of 52Mt at 1.51% Li₂O for 0.79Mt contained Li₂O comprising 8.1 million tonnes of Proven Ore Reserves at 1.55% Li₂O and 44.0 million tonnes of Probable Ore Reserves at 1.50% Li₂O. Goulamina has a Mineral Resource of 109Mt at 1.45% Li₂O for 1.57Mt contained Li₂O comprising 8.4 million tonnes at 1.57% Li₂O in the Measured category, 56.2 million tonnes at 1.48% Li₂O in the Indicated category and 43.9 million tonnes at 1.45% Li₂O in the Inferred category. The Company is in the process of demerging Goulamina into a new ASX listed entity, Leo Lithium.

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 back local socio-economic initiatives, whilst operating in a manner that safeguards the environment and places our team’s safety and wellbeing as our first priority.

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 8th July 2020, 20th October 2020 and 6th December 2021 (Goulamina), 8th February 2021 (Morila Resource), 7th September 2020 and 28th April 2021 (Morila Tailings), 24th November 2020, 3rd May 2021, 10th August 2021 and 25th March 2022 (N’Tiola, Viper, Domba, Koting, Morila Pit 5), and 17th January 2022 and 28th January 2022 (Morila Gold Production, Ore Reserves and Production Targets).

**APPENDIX 1: JORC CODE, 2012 EDITION – TABLE 1
EXPLORATION RESULTS, MINERAL RESOURCES & ORE RESERVES,
MORILA GOLD PROJECT, MALI**

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> One metre samples were collected using Reverse Circulation (RC) drilling with a ~140mm bit. The entire sample is collected from the cyclone on the rig in plastic bags and then split by hand using a riffle splitter to collect a sample of between 2 and 3 kg in a prenumbered cotton sample bag. The entire sample is pulverized and a 30g charge is collected for fire assay/AAS analysis.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> All samples in the current campaign were collected using RC drilling RC drilling using face sampling bit with a nominal 5.5" hole diameter.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> RC recoveries for the primary sample were observed and estimated qualitatively, with the sub samples weighed as a quantitative measure. The entire sample was collected from the cyclone and subsequently split by hand in a riffle splitter to maximise representivity. Drill sample recovery is considered adequate for the drilling techniques employed. RC drilling utilised booster packs to manage water ingress with most samples being dry. Condition of the sample was recorded (ie

Criteria	JORC Code explanation	Commentary
		<p>Dry, Moist, or Wet)</p> <ul style="list-style-type: none"> Where samples were wet (due to ground water there is a possibility that the assay result could be biased through loss of fine material. No relationship is known to exist between sample recovery and grade.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Chips were geologically logged in their entirety by geologists and a representative fraction collected in a chip tray. The logs are sufficiently detailed to support Mineral Resource estimation. Logged criteria included lithology, alteration, alteration intensity, weathering, grainsize and sulphides. Geological logging is qualitative in nature although percentages of sulphides are estimated along with structural measurements.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> RC samples are either split using a cone or riffle splitter mounted on the rig or split by hand using a stand-alone riffle splitter. These techniques are appropriate for collecting statistically unbiased samples. Samples are weighed to ensure a sample weight of between 2 and 3 kg. Samples of between 2 and 3 kg are considered appropriate for determination of contained gold using the fire assay technique. Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%. Field duplicates are inserted every 20 samples Blanks (derived from unmineralized river sand) and Certified reference material standards (CRMs) are inserted alternately every 20 samples Both duplicates (two aliquots of 50g from the same 200g sub sample) and replicates (two samples from the same raw sample) were used to test the laboratory precision (repeatability) and the homogeneity of the sample respectively.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the 	<ul style="list-style-type: none"> Samples were analysed for gold at the laboratory onsite at Morila, an accredited commercial laboratory, as well as at commercial laboratories in Bamako. The Morila laboratory is located on site but operated by an independent third party

For personal use only

Criteria	JORC Code explanation	Commentary
	<p><i>analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<p>(MSALABs).</p> <ul style="list-style-type: none"> Sample preparation comprised of the following: <ul style="list-style-type: none"> drying all samples and crushing (for core samples). Pulverise entire sample to 95% passing 75 microns (all samples). A 30g sub sample analysed by fire assay with AAS finish. QA/QC programme comprises Certified Reference Materials, replicates, duplicates, and blanks. Laboratory checks include <ul style="list-style-type: none"> Every 50th sample is screened to confirm % passing 2mm and 75 microns. 1 reagent blank every 84 samples 1 preparation blank every 84 samples 2 weighed replicates every 84 samples 1 preparation duplicate (re split) every 84 samples 3 SRMs every 84 samples Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%. Field duplicates are inserted every 20 samples Blanks (derived from unmineralized river sand) and Certified reference standards (CRMs) are inserted alternately every 20 samples Replication (two samples from the same raw sample) and duplication (two aliquots from the same sub-sample) tests were also carried out by the laboratory.
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Firefinch drill hole data was compiled and digitally captured by Company geologists at the drill rig. Drilling and sampling procedures have been developed to ensure consistent sampling practices are used by site personnel. All drilling and exploration data are stored in the company database which is hosted by an independent geological database consultant. The compiled digital data is verified and validated by the consultant before loading into the database. QAQC reports are generated regularly to allow ongoing reviews of sample quality. Twinned holes were not used to verify results, infill drilling has been used to increase confidence.

Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • Drill hole collars are located using DGPS or RTK GPS. • Down hole dip and azimuth are collected using a Gyro measuring every 20 to 50m for RC drilling. • Coordinates are recorded in UTM WGS84 29N • Topographic control is maintained by the Morila mine survey department with a mixture of survey pickups and aerial data and is considered adequate for mine planning purposes.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • At N'Tiola and Viper historical shallow drilling has been completed to a 10 x 10m spacing. Drilling below the mined pit is at a more variable spacing but Firefinch drilling has ensured that drilling is at 40 x 40m spacing or closer. • At Koting drill holes are spaced approximately 12 metres apart on 25m spaced sections and is sufficient to establish grade continuity to determine a Mineral Resource. • At Pit 5 drilling is on a 20m x 15m grid and is sufficient to establish grade continuity to determine a Mineral Resource. • No sample compositing has been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> • N'Tiola – mineralisation is hosted between two steeply west-dipping shear zones, with high grade zones in more shallowly dipping vein sets linking the shears. Drilling has been oriented to the east to intersect the main mineralised structures. • Viper – mineralisation is hosted in mineralised zones which are interpreted to dip moderately (~65°) to the west. Drilling has been oriented to the east to intersect the main mineralised structures. • Koting - Two or more mineralized zones are interpreted to dip steeply to the east. Drilling is generally oriented -60 degrees due east or -60 degrees due west. Intersection angles on the subvertical mineralised zone are between 25 and 35 degrees. • Pit 5 - Mineralisation is hosted in a sequence of relatively flat lying stacked veins located from surface to 130m below surface. Drilling is generally vertical, with some holes drilled to the west. Due to the attitude of the orebody intersection angles on the mineralised zone are almost perpendicular. • No sampling bias is known to exist though it

Criteria	JORC Code explanation	Commentary
		is not precluded.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples are delivered from the drilling site in batches for each drill holes to the SGS laboratory at Morila with appropriate paperwork to ensure the chain of custody is recorded.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> QAQC checks of individual assay files are routinely made when the results are issued. A QAQC report for the entire program is generated and reviewed to document any laboratory drift or assay bias.

For personal use only

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The N'Tiola, Viper and Morila Pit 5 Deposits lies within the Morila license (PE 99/15) which is owned by Société des Mines de Morila SA, a Malian registered company with 20% held by the Malian Government. The Koting Project is entirely within the Finkola exploration tenement PR13/640 in Mali. PR13/640 is 100% held by Birimian Gold Mali SARL a 100% held subsidiary of Firefinch Limited. An application has been lodged to convert the license to an exploitation license.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Focused systematic regional exploration of the Morila area began in the mid 1980s. Most exploration was completed by Randgold, in JV with Anglogold Ashanti. Exploration in the Morila area has been extensively detailed in ASX Announcements of 31 August 2020 and 8 February 2021. Firefinch, under its former names Birimian Gold and Mali Lithium, completed substantial exploration at N'Tiola, Viper, Koting and the surrounding area (also as) including soil sampling, Auger Drilling, Air-core Drilling and RC Drilling as well as limited diamond drilling. The N'Tiola and Viper deposits which were then acquired and mined by Randgold under an option agreement (refer ASX Announcement 4 Nov 2016).
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Morila permit is situated in the northern portion of the West African craton between the NNE trending Birimian volcano-sedimentary belts of Kalana-Yanfolila and Syama. The region is underlain predominantly by Lower Proterozoic meta-volcanic and meta-sedimentary sequences (Birimian) and large areas of granitoids. The whole package of rocks has been deformed by the Eburnean Orogeny. The permit area locates along a contact between Birimian metasediments and the Eburnean granitoids. Geology of the Morila deposit has been extensively detailed in ASX Announcements of 31 August 2020 and 8 February 2021. The Pit 5 Deposit is part of the Morila Deposit. The Koting, N'Tiola and Viper deposits are shear vein hosted orogenic style gold deposits. This style of mineralisation typically forms as veins or disseminations in altered host rock. Deposits of this type often form in

Criteria	JORC Code explanation	Commentary
		<p>proximity to linear geological structures.</p> <ul style="list-style-type: none"> • Surficial geology within the project area typically consists of indurated gravels forming plateau, and broad depositional plains consisting of colluvium and alluvial to approximately 5m vertical depth. Lateritic weathering is common within the project area. The depth to fresh rock is typically 35m vertical.
Drill hole Information	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i> 	<ul style="list-style-type: none"> • All drill hole intersections from the current phase of drilling are reported in Appendix 1. • Previous drilling completed by Firefinch at the Koting Gold Prospect in the period from 2015 to 2019 has been reported to the ASX in various updates such as 9th February 2015, 26th March 2015, and 12th Sept 2018 under the Company's previous names (Birimian Gold and Mali Lithium). • Previous drilling completed at the Pit 5 Prospect was detailed in the ASX Announcement of 5 March 2021. Other drilling at the Morila deposit has been extensively detailed in ASX Announcements of 31 August 2020 and 8 February 2021. • Previous drilling completed at the N'Tiola and Viper Prospects were detailed in the ASX Announcements of 24 Nov 2020, 22nd January 2021, 29th March 2021, 30th April 2021, 10th June 2021, 10th August 2021 and 22nd October 2021. • The Company confirms that there are no material changes to any of the information previously released.
Data aggregation methods	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • All sample lengths are 1m. a weighting of 1 has been applied to all samples. • Top cuts have not been used • Metal equivalent grades have not been stated.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation on widths and intercept lengths	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • At Koting, N'Tiola and Viper mineralised lodes are interpreted to dip moderately or steeply to the WNW. Drilling is generally oriented -60 degrees due east or -60 degrees due west. Intersection angles on the mineralised zones are between 25 and 35 degrees. True widths of mineralisation are above 50% of downhole widths. • At Pit 5 mineralisation is flat lying and holes were drilled vertically to ensure the lodes were intersected perpendicular to this orientation.
Diagrams	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • Appropriate maps and sections are provided in the text
Balanced reporting	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • All intersections from previous drilling were reported using a consistent grade and length criteria, with any barren drillholes included to ensure balanced reporting.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • The Morila Project has been in operation since 2000 with exploration activities completed prior to that. Consequently, there is a large quantity of data including exploration data (geochemical and geophysical surveys, trenching, drilling), production data (grade control drilling, mining and processing), as well as associated data such as environmental and geotechnical, which is used in the exploration and development of the project. None of this information is meaningful or material for the current release.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • As detailed in the text

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in the preceding section also apply to this section.)

Bd	JORC Code explanation	Commentary
Criteria		
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> All drilling and exploration data are stored in an SQL database hosted by an independent geological database consultant. Logging and sampling data are collected using datasheets and validated on completion of logging then on import into the database. Data was subsequently validated upon import into the modelling software. The Competent Persons have reviewed the database via import into Micromine & Suprac and visual checks against the model.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Mr Oliver and Mr McCracken have travelled to site in 2019 and 2020. Mr Blackney and Mr Griffin have not been able to visit Morila to date due to restrictions on travel related to COVID-19. They have relied on information provided to them.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> The geological interpretation is based on a substantial amount of drilling as well as mining resulting in a high degree of confidence. Mineralisation at N'Tiola is hosted within medium to coarse grained sediments with pyrite and minor arsenopyrite. The sedimentary package comprises steeply dipping fine, medium and coarse-grained sediments with late intrusive rocks also present. Mineralisation is parallel to foliation and controlled by a NNW-striking ductile shear zone. Higher grade zones occur as flat SW-dipping structures (& veins) linking two parallel shear zones which form the boundary of the mineralised package. Mineralisation at Viper is hosted by silica flooded, sheared greenstone facies metamorphosed psammities. Arsenopyrite and pyrite is disseminated or occurs as stringers parallel to foliation. Mineralisation discovered to date is dominantly within the oxide zone, particularly in the southern portion of the deposit. The northern part of the deposit is slightly higher grade and the depth to fresh rock is less indicating a structural dislocation between the south and north parts. Mineralisation at Koting is hosted by silica flooded, sheared greenstone facies metamorphosed greywackes and siltstones and occasional carbonaceous shales. Arsenopyrite and pyrite is disseminated

Bd Criteria	JORC Code explanation	Commentary
		<p>throughout. Mineralisation is hosted in both oxide and fresh rock zones. Lateritisation of the oxide zone has resulted in mineralisation being re-mobilised into flat lying supergene blankets in the middle portion of the deposit.</p> <ul style="list-style-type: none"> Mineralisation at Pit 5 is hosted within weathered and fresh flat-lying medium to coarse grained sediments with pyrite and arsenopyrite. The global architecture of the Morila mineralisation appears to be grossly domal, with the pit at the antiformal crest of the system, and the peripheral veining dipping away from the pits. Late stage intrusives are present below the pit. The Mineral Resources are based on the geological interpretation above.
Dimensions	<ul style="list-style-type: none"> <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i> 	<ul style="list-style-type: none"> The N'Tiola resource model has dimensions of 700m in the north-south direction, 300m in plan/east-west width and extends 220m vertically from surface The Viper resource model has dimensions of 1,500m in the north-south direction, 460m in the east-west direction and extends 210m vertically from surface. The Koting resource model has dimensions of 520m in the north-south direction, 200m in the east-west direction and extends 350m vertically from surface. The Pit 5 resource model has dimensions of 320m in the north-south direction, 640m in plan/east-west width and extends 120m vertically from surface
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation,</i> 	<ul style="list-style-type: none"> The resource models were produced using GEOVIA Surpac software based on 1m sample composites constrained by the mineralised lode interpretation. Grades were estimated into 2.5m x 2.5m x 2.5m blocks (or 2.5m x 2.5m x 1.25m at Viper) using Ordinary Kriging techniques inside wireframes generated from geological interpretation. This block size is consistent with the selective mining unit previously used at these deposits and likely to be used again. Search ellipses used ranged from 30m to 195m with appropriate min/max limits on the number of samples used, with search ranges and orientations determined by geostatistics with reference to the mineralised lode interpretation. Capping was used to reduce the effect of high-grade samples (between 5.2 and 33.5g/t for

Bd Criteria	JORC Code explanation	Commentary
	<p><i>the block size in relation to the average sample spacing and the search employed.</i></p> <ul style="list-style-type: none"> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<p>N'Tiola, 40g/t for Viper, 15g/t for Morila Pit 5, 15g/t for Koting).</p> <ul style="list-style-type: none"> • Visual and statistical validation was completed and shows reasonable correlation between estimated grades and drill sample grades. • The Mineral Resources were compared to previous resource estimates (including some which are not published) and found to be consistent.
Moisture	<ul style="list-style-type: none"> • <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> • Tonnages have been estimated on a dry in situ basis.
Cut-off parameters	<ul style="list-style-type: none"> • <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> • The cut-off grade for the Mineral Resource is based on open pit design in accordance with RPEEE principles. Costs used in this were the current mining, processing and G&A costs for the Morila operation, along with mining costs sourced from multiple sources including a database of costs from similar operations, recent tenders for projects in the region and historical mining costs at Morila.
Mining factors or assumptions	<ul style="list-style-type: none"> • <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i> 	<ul style="list-style-type: none"> • The resource model assumes open cut mining is utilised with a similar level of mining selectivity achieved as in previous mining. It is assumed that grade control techniques and procedures will mirror those which were successful during previous mining operations at these deposits.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i> 	<ul style="list-style-type: none"> • It is assumed that metallurgical recoveries will match those historically achieved by ore from these deposits through the Morila processing plant. Metallurgical testwork has been completed on composite samples and results to date are consistent with this assumption.

Bd	JORC Code explanation	Commentary
Criteria Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> No assumptions have been made regarding environmental factors. The Company will work to mitigate environmental impact as a result of any future mining or mineral processing. The N'Tiola and Viper areas were previously mined and the planned open pits do not significantly increase the footprint of disturbance.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> Relative density measurements were completed on core samples. The core was divided into oxide, transitional and sulphide core. Relative density determinations on core used the weight in air/weight in water method.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The resources have been classified as Indicated and Inferred based on data quality, geological confidence and sample spacing. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in situ mineralisation. The definition of mineralised zones is based on a good geological understanding producing a robust model of mineralised domains. This model has been confirmed by grade control, infill and extensional drilling which supports the mineralisation model. The key factors requiring additional information would be increased sample spacing to achieve improved local estimates of grade and more precision relating to the historic mining. The resource estimate appropriately reflects the view of the Competent Persons, that the data quality and validation criteria, as well as the resource methodology and check procedures, are reliable and consistent with criteria as defined by the JORC Code.

For personal use only

Bd	JORC Code explanation	Commentary
Criteria		
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> No audits or review of the Mineral Resource estimate has been conducted.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> The lode geometry and continuity has been interpreted in detail. The data quality is good with all drill holes being logged by qualified geologists and a recognized laboratory has been used for all analyses. Further infill drilling could be used to increase confidence in local grade estimation. The Mineral Resource statement relates to global estimates of tonnes and grade.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> The Ore Reserve estimate has been based on the following Mineral Resource estimates: <ul style="list-style-type: none"> The Mineral Resource estimates for the Morila Gold Project has been compiled by independent consultants and employees and reported in the ASX Announcement of 3rd May 2021. The Global Mineral Resources are 27.5 Mt at 1.49 g/t for 1.31 Moz (Indicated) and 23.2 Mt at 1.56 g/t for 1.16 Moz (Inferred). Only Measured and Indicated resources have been used in the Ore Reserve estimate. The Mineral Resources have been depleted using survey pickups as at the end of mining for the conversion to Ore Reserves. The Mineral Resources for all deposits have been reported inclusive of the Ore

For personal use only

Criteria	JORC Code explanation	Commentary
		Reserves estimated and stated here.
Site visits	<ul style="list-style-type: none"> • <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> • <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> • The Competent Person has been unable to visit Morila due to travel restrictions associated with COVID19. • A representative of the Competent Person has travelled to Morila and provided the Competent Person with appropriate observations and information. Otherwise, the Competent Person has relied on information provided by Firefinch and other consultants.
Study Status	<ul style="list-style-type: none"> • <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> • <i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<ul style="list-style-type: none"> • Due to the Morila Mine being an operational mine, the study being completed is investigating the viability of a ramp-up in production in response to current gold prices. • The level of the study considered to be at a Pre-Feasibility Study level, with an accuracy of + / - 25%. • Appropriate mine planning and modifying factors have been applied commensurate to a PFS level of accuracy and are deemed to have reasonable prospects of being technically achievable and economically viable by comparison to past performance.
Cut-off parameters	<ul style="list-style-type: none"> • <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> • The cut-off grade for the Ore Reserve is based on the open pit optimisation modifying parameters. These include: <ul style="list-style-type: none"> ○ Processing costs based on the current processing and G&A costs for the Morila processing operation ○ mining costs sourced from multiple sources including recent submissions for tenders / quotation and first-principle estimates ○ process recovery based on historical plant performance and testwork. • Ore haulage from the satellite pits to Morila • Assumed dilution and ore loss parameters • The cut-off grades used were: <ul style="list-style-type: none"> ○ Morila Pit 0.43 g/t ○ N'Tiola Pit 0.51 g/t ○ Viper and Koting Pit 0.49 g/t
Mining factors or assumptions	<ul style="list-style-type: none"> • <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> • <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> • <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> 	<ul style="list-style-type: none"> • A preliminary pit design has been carried out based on the results of an open pit optimisation process (Whittle™). • Open pit mining using a conventional truck and shovel approach has been chosen as mineralisation occurs close to surface and the method is widely used in sub-Saharan Africa. • Wall slope parameters were sourced from various reports from independent consultants commissioned by the previous owners. A site visit and assessment was conducted of the existing pit walls which had been in place for several year (excluding

For personal use only

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> <i>The mining recovery factors used.</i> <i>Any minimum mining widths used.</i> <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> <i>The infrastructure requirements of the selected mining methods.</i> 	<p>Morila pit due to in-pit water). In addition, geotechnical advice was received from Peter O’Bryan and Associates, an independent Perth based consultancy, who reviewed the available reports. All pits used inter ramp wall angles ranging from 30.5° in oxide to 45° in transition material to 62.5° in fresh, and additional ramp width allowances ranging from 25m to 13.5m. Peter O’Bryan and Associates have subsequently been appointed by Firefinch to provide on-going geotechnical peer review across the entire project. Due to the absence of geotechnical issues in the operational history of the project the risk is not considered significant</p> <ul style="list-style-type: none"> It is intended to undertake some pre-production grade control drilling before and during mining operations, supplemented with blast hole sampling where appropriate. A mining dilution of 10% and mining ore loss of 2% was applied as suitable parameters for the style of orebody and planned bench heights of 2m to 2.5m. Resource material classed as Inferred was converted to waste for the purposes of reporting the Ore Reserve. Stage 1 of the LoMP, which comprises the Ore Reserve pit designs, includes 15% Inferred Mineral Resources. Financial modelling has confirmed that the pit designs remain economically viable without any contribution from the Inferred material that has been included in the LoMP. Inferred materials account for only 4% of plant feed in the first 3 ½ years of the LoMP. The Company plans to complete drilling to convert Inferred material to Indicated classification in the immediate term. The Morila Gold Mine has all available infrastructure to support an open pit mining operation, including a dedicated haul road from the satellite deposits to the plant. The contractor may construct some facilities at the satellite pits to support operations (i.e. ablutions, wash rooms, mess rooms and offices). It is anticipated that these buildings will be temporary installations rather than permanent structures
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> <i>The nature, amount and representativeness of metallurgical test</i> 	<ul style="list-style-type: none"> The Morila processing plant is a conventional Carbon in Leach (CIL) facility and commenced operating in 2000. The process is well established for the extraction of gold. It is assumed that metallurgical recoveries will

Criteria	JORC Code explanation	Commentary
	<p>work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</p> <ul style="list-style-type: none"> Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<p>match those historically achieved by ore from these deposits through the Morila processing plant.</p> <ul style="list-style-type: none"> Metallurgical test work has been completed on composite samples from recent drilling using plant parameters and results to date are consistent with this assumption. No deleterious elements are present in the ore or gold doré.
Environmental factors or assumptions	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<ul style="list-style-type: none"> The Morila Mine is an operating gold mine with all approvals and permits in place. The Ore Reserves for Morila, N'Tiola and Viper are based on established mining sites and will re-use historical waste dumps. For Koting an Environmental and Social Impact Assessment is being completed prior to the commencement of mining.
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. 	<ul style="list-style-type: none"> The Morila Mine is an operating gold mine with all required infrastructure in place including processing plant, power station, water storage and an accommodation camp. It has a dedicated airstrip and is located on a national road. The mine has an established and experienced workforce with the skills required to staff all aspect of the proposed operation.
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> Satellite pit mining costs were based on recently received mining contractor submissions to Request for Tender of the Viper and N'Tiola pits. Morila mining costs were based on a first principle cost estimation validated by recently received mining contractor submissions to a request for Budget Pricing for the Morila pit. Additional allowances were applied for ore rehandle, grade control and other mining related oncosts. <p>Current processing and G&A costs for</p> <ul style="list-style-type: none"> Process and G&A costs used were based on both the current and historical costs for the Morila operation. Exchange rate assumptions were AUD:USD 0.75. All costs were derived or supplied in USD. The basis for treatment and refining charges is the Company's current refining contract. The State of Mali royalties of 6% have been incorporated in the financial model.

For personal use only

Criteria	JORC Code explanation	Commentary
Revenue factors	<ul style="list-style-type: none"> The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> A gold price of USD1800/oz was used for initial optimisation runs that were used as the basis for the Ore reserve pit designs. The Morila design has subsequently been validated at \$1700/oz. No factors were applied in the application of the metal prices stated in the above section.
Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> The product of this mine is a precious metal and the stated methodology of applying the metal price is considered to be adequate and appropriate. No major market factors are anticipated or known at the time of reporting, to provide a reason for adjusting this assumption.
Economics	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs 	<ul style="list-style-type: none"> The Ore Reserve estimate is based on a financial model prepared to a PFS level of accuracy. All inputs from mining, processing, transportation and sustaining capital as well as contingencies have been scheduled and evaluated to generate a full life of financial model. Economic inputs were sourced from current operating costs, suppliers, contractors or independent consultant databases. The Ore Reserve Estimate reflects positive economic outcomes at the assumed commodity price with sufficient cash flow generated over the life of the project and accordingly a positive NPV for the project. Morila Ore Reserve generates approximately US\$650M in net cashflow as a standalone pit at a gold price of \$1750/oz. The satellite pits generate a combined US\$83M at the same gold price. Non-attributable projects excluded from the standalone analysis. As with the LOMP financial modelling, PCF have undertaken the standalone financial modelling. A discount rate of 8% pa was applied. Sensitivities testing of the key operating and commercial parameters were conducted.
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> The Morila Mine is an operating mine and accordingly ongoing consultation and engagement is carried out with the local communities and all levels of government to maintain the projects social licence to operate.
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the 	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the

For personal use only

Criteria	JORC Code explanation	Commentary
	<p>estimation and classification of the Ore Reserves:</p> <ul style="list-style-type: none"> Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<p>estimation and classification of the Ore Reserves:</p> <ul style="list-style-type: none"> The dewatering and removal of tailings from the Morila pit is ongoing and may affect the timelines presented in this Life of Mine Plan. The Company has identified additional ore sources which can provide feed to the plant if required but require further drilling. All permits and approvals to operate the mine are in place and operating. The requirements to maintain agreements are transparent and well managed by the company in consultation with the Government of Mali. Contracts are in place with a refiner to purchase the gold produced from the project.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> The Ore Reserves have been classified as Probable and are derived from Mineral Resources classified as Indicated. No Mineral Resources classified at the Inferred level of confidence are included in the estimated Ore Reserves. The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of the technical and economic studies.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> No audits or review of the Ore Reserve estimate has been conducted.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of 	<ul style="list-style-type: none"> In the estimating of these Ore Reserves, the confidence levels as expressed in the Mineral Resource estimates have been accepted in the respective resource classification categories. The Ore Reserves estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to the spacing of the drill data on which the estimates are based, relative to the intended local selectivity of the mining operations. Inclusion of current and historical operating costs and performance has increased the accuracy and confidence of the Modifying Factors used in the derivation of the Ore Reserve. The modifying factors applied in the estimation of the Ore Reserves are considered to be of a sufficiently high level of confidence not to have a material impact on the viability of the estimated Ore Reserves.

Criteria	JORC Code explanation	Commentary
	<p><i>uncertainty at the current study stage.</i></p> <ul style="list-style-type: none"><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	

For personal use only