

# **High Grade Gold Results from the Morila Super Pit**

- More excellent results received from drilling at the Morila Super Pit:
  - 4.0 metres at 13.6g/t gold from 315.2 metres
  - o 16.8 metres at 3.02g/t gold from 279.4 metres, including 6.3 metres at 6.95g/t gold
  - 7.5 metres at 5.99g/t gold from 168.8 metres, including 2.7 metres at 15.9g/t gold
- Results from drillhole MRD0018 are significant as they may represent a new zone of mineralisation well outside the main pit and separated from the lodes previously mined:
  - o 15.0 metres at 7.61g/t gold from 263.0 metres, including 9.0 metres at 11.1g/t gold
  - 2.8 metres at 23.7g/t gold from 236.4 metres, including 0.8 metres at 82.0g/t gold
- Drilling is continuing and will test extensions to high grade zones recently intersected on both the western and eastern sides of Morila
- Update of the Morila Mineral Resource underway

Firefinch Limited (ASX: FFX) (**Firefinch** or **the Company**) is pleased to provide an update on drilling activities at the Morila Gold Project (**Morila**), including a number of significant intersections with high grade gold mineralisation.

#### Firefinch's Managing Director, Dr Michael Anderson, commented:

"Our systematic drilling programme on both sides of the Morila Super Pit continues to intersect high grade zones of significant thicknesses within and around the deposit. Today's results are important because they confirm the potential to grow the Morila Resource. We expect to update the Resource and the Stage 1 mine plan for the Morila Super Pit in the coming months. Our team is continually updating the geological model to allow follow up drilling to be rapidly implemented utilising the three diamond core drill rigs currently operating at Morila."



Drilling in progress at MRD0018 with Pit 5 in the background

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#### MRD0018 Result

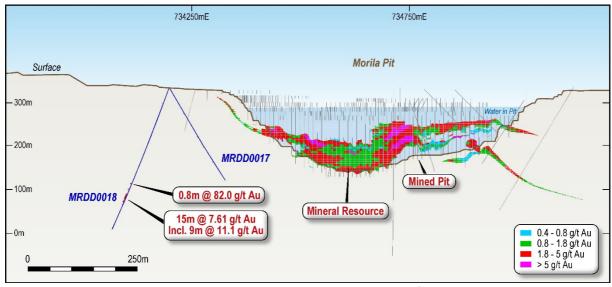
The intersections in MRD0018 are significant as they appear to be separated from the mineralised lodes previously mined at Morila (Figure 1).

MRD0018 tested for extensions to mineralisation intersected in a prior drillhole located 30 metres to the south (drillhole SAN 263 intersected 23 metres at 2.48g/t gold from 270 metres<sup>1</sup>) and returned much higher grades:

- > 15.0 metres at 7.61g/t gold from 263.0 metres, including 9.0 metres at 11.1g/t gold (MRD0018); and
- 2.8 metres at 23.7g/t gold from 236.4 metres, including 0.8 metres at 82.0g/t gold (MRD0018)

The intersections are some 250 metres west of the pit and 130 metres south of the Morila Mineral Resource. It is unclear whether these thick and high-grade intersections represent an offset of the main Morila lodes or represent a new and discrete zone of mineralisation.

Mineralisation at Morila is generally flat lying and both controlling structures and mineralisation are interpreted to have a broad north-south trend. One of the targeting criteria used by Firefinch is to identify prior drill intersections which have not been tested to the north or south. Drilling is ongoing to the south of MRD0018, in the south-west portion of the Morila Deposit, testing similar historical intersections which were not followed up with closer spaced drilling.



**Figure 1:** Cross Section 1921930mN showing results from MRD0018.

#### **Morila West Drilling**

All results have now been received and interpreted from the drilling campaign at the western side of the Morila Super Pit, completed in Q4 2021.

<sup>&</sup>lt;sup>1</sup> Refer to ASX Announcement 31st August 2020.



Results are detailed in Figure 2 and Appendix 1 and include:

- > 7.5 metres at 5.99g/t gold from 168.8 metres, including 2.7 metres at 15.9g/t gold (MRD0015);
- > 16.8 metres at 3.02g/t gold from 279.4 metres, including 6.3 metres at 6.95g/t gold (MRD0015);
- > 21.7 metres at 1.40g/t gold from 266.7 metres (MRD0016);
- > 18.0 metres at 1.58g/t gold from 262.5 metres, including 8.5 metres at 2.81g/t gold (MRD0012);
- > 15.0 metres at 1.77g/t gold from 262.5 metres, including 4.6 metres at 3.55g/t gold, within a wider interval of 37.8 metres at 1.02g/t gold from 242.2 metres (MRD0010);
- > 10.0 metres at 2.16g/t gold from 271.6 metres, including 4.5 metres at 3.60g/t gold, within a wider interval of 18.4 metres at 1.39g/t gold from 263.3 metres (MRD0024);
- > 3.3 metres at 7.12g/t gold from 204.1 metres including 0.9 metres at 25.0g/t gold (MRD0011); and
- > 14.0 metres at 1.60g/t gold from 129.8 metres including 8.1 metres at 2.57g/t gold (MRD0013)

This first phase of resource drilling at Morila has delineated down-dip extensions to mineralisation below the current planned pit design in the north-western portion of the deposit; the area where prestripping of waste has commenced<sup>2</sup>.

Drilling successfully intersected a number of high-grade zones in MRD0015 (7.5 metres at 5.99g/t gold including 2.7 metres at 15.9g/t gold and 6.3 metres at 6.95g/t gold) and MRD0011 (3.3 metres at 7.12g/t gold including 0.9 metres at 25.0g/t gold). These add to previously released results along strike to the north in MRD0006 (3.7 metres at 6.81 g/t gold) and MRD0009 (3.3 metres at 6.93 g/t gold)<sup>3</sup>.

These high-grade zones are now high priority targets for further drilling, currently underway, to increase the confidence in the Mineral Resource in these areas and inform mine planning to focus on accessing these high-grade zones.

The other results listed in Appendix 1 are largely consistent with the 2021 Mineral Resource, with some local variations in predicted position. These are the result of better definition of the mineralised horizon, controlling structures and refinement of the geometry of tonalite intrusions (which the mineralised horizons wrap around). Detailed structural logging has been completed on all core drilled by Firefinch with current work focussing on merging this in with historical data to provide new geological models and inform a new set of targets in this area.

The current open pittable Mineral Resource for Morila stands at 1.86 million ounces of gold comprising 38.6 million tonnes at 1.50g/t gold<sup>4</sup> (21.2 million tonnes at 1.60g/t gold in the Indicated category, and 17.5 million tonnes at 1.37g/t gold in the Inferred category; refer Table 1). A Mineral Resource update will enable the Stage 1 pit design and 2022-2023 mining schedule to be refined.

<sup>&</sup>lt;sup>2</sup> Refer ASX Announcement 6<sup>th</sup> January 2022.

<sup>&</sup>lt;sup>3</sup> Refer ASX Announcement 22<sup>nd</sup> October 2021.

<sup>&</sup>lt;sup>4</sup> Refer to ASX announcement dated 8<sup>th</sup> February 2021.



As drilling results are largely consistent with the existing resource modelling the resource update should also result in the conversion of deeper Inferred Resources to Indicated Resources leading to detailed planning of the Stage 2 pit design and provide further refinement to the life of Mine mining schedule.

#### **Morila North East Drilling**

In parallel with the resource drilling at Morila West, a campaign of drilling has been completed in the northeastern part of the deposit, targeting potential extensions to the intersection in MRD0001 (10.5 metres at 34.0g/t gold)<sup>5</sup>

Follow up drilling to the east of MRD0001 has now returned **4 metres at 13.6 g/t gold** from 315.2 metres in MRD0028. This result is down dip from MRD0002 which returned 6 metres at 2.62g/t gold<sup>6</sup> and geological and structural data from MRD0028 and surrounding holes are being interpreted to guide follow up drilling in this area.

This high-grade zone of mineralisation remains a focus for follow up drilling as the results intersected to date highlight the potential for an underground operation at Morila. The Company has already commenced a high-level study into underground mining at Morila and these results will be fed into forthcoming updates of that study.

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

For Enquiries

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<sup>&</sup>lt;sup>5</sup>Refer ASX Announcement 18<sup>th</sup> August 2021.

<sup>&</sup>lt;sup>6</sup>Refer ASX Announcement 22<sup>nd</sup> October 2021.



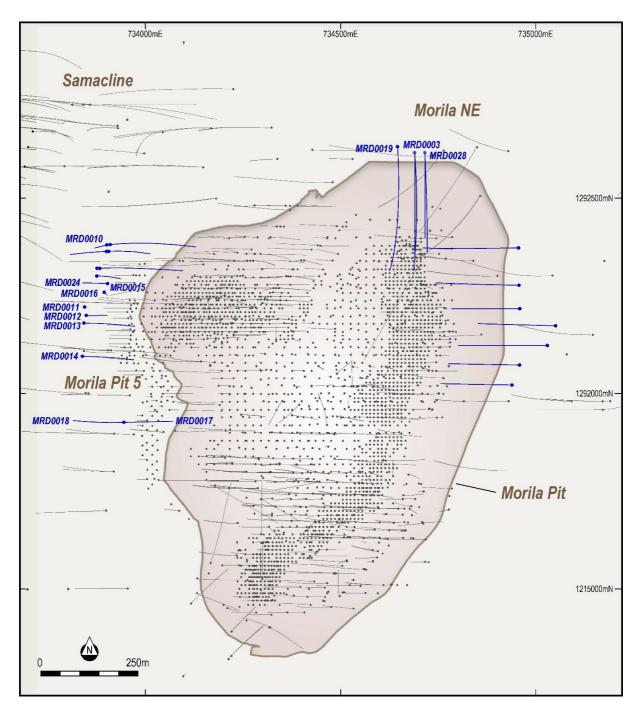


Figure 2: Plan showing Firefinch and historical drilling at Morila.

Drillhole results released in this announcement are labelled.



#### **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 Declaration**

The information in this announcement that relates to Exploration Results and Mineral Resources at Morila is based on information compiled by 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.

Table 1: Mineral Resources for the Morila Gold Project

Deposit	Measure	ed & Indio	ated <sup>6</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>1</sup>	21.2	1.60	1,090	17.5	1.37	770	38.6	1.50	1,860
Morila NE <sup>2</sup>				0.21	3.07	21	0.21	3.07	21
Samacline <sup>2</sup>				3.74	2.56	308	3.74	2.56	308
Tailings <sup>3</sup>	1.73	0.50	28				1.73	0.50	28
Morila Pit 5 <sup>4</sup>	0.72	1.04	24	0.12	1.38	6	0.84	1.10	30
N'Tiola <sup>4</sup>	2.42	1.05	81	0.01	0.73	1	2.43	1.04	81
Viper <sup>4</sup>	1.52	1.04	51	0.02	1.41	1	1.55	1.05	52
Domba <sup>5</sup>	0.20	1.75	11	0.25	1.61	13	0.46	1.67	25
Koting <sup>4</sup>	0.65	1.04	22	0.28	0.94	8	0.93	1.01	30
Total	28.42	1.43	1,309	22.08	1.58	1,124	50.50	1.50	2,433

<sup>&</sup>lt;sup>1</sup> The Morila Pit resource is quoted using a 0.4g/t gold cut-off grade.

<sup>&</sup>lt;sup>2</sup> The Samacline and Morila NE resources are quoted using a 1.8g/t gold cut-off grade.

 $<sup>^3</sup>$  The Tailings resource is quoted using a 0.3g/t gold cut-off grade.

<sup>&</sup>lt;sup>4</sup>The N'Tiola, Viper, Pit 5 and Koting resources are quoted above cut-off grades based on forecast costs (0.35 – 0.48g/t).

<sup>&</sup>lt;sup>5</sup> The Domba resource is quoted using a 0.5g/t gold cut-off grade.

<sup>&</sup>lt;sup>6</sup> Detailed breakdown of Measured, Indicated and Inferred Mineral Resources are supplied in the ASX Announcement of 3<sup>rd</sup> May 2021.

 $<sup>^{7}</sup>$ Numbers in the above table may not appear to sum correctly due to rounding.



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 2.43 million ounces of gold (Measured: 1.73Mt at 0.5g/t gold for 0.03Moz, Indicated: 26.7Mt at 1.49g/t gold for 1.28Moz and Inferred: 22.1Mt at 1.58g/t gold for 1.12Moz). 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% Li<sub>2</sub>O for 0.79Mt contained Li<sub>2</sub>O comprising 8.1 million tonnes of Proven Ore Reserves at 1.55% Li<sub>2</sub>O and 44.0 million tonnes of Probable Ore Reserves at 1.50% Li<sub>2</sub>O. Goulamina has a Mineral Resource of 109Mt at 1.45% Li<sub>2</sub>O for 1.57Mt contained Li<sub>2</sub>O comprising 8.4 million tonnes at 1.57% Li<sub>2</sub>O in the Measured category, 56.2 million tonnes at 1.48% Li<sub>2</sub>O in the Indicated category and 43.9 million tonnes at 1.45% Li<sub>2</sub>O 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 8<sup>th</sup> July 2020, 20<sup>th</sup> October 2020 and 6<sup>th</sup> December 2021 (Goulamina), 8<sup>th</sup> February 2021 (Morila Resource), 7<sup>th</sup> September 2020 and 28<sup>th</sup> April 2021 (Morila Tailings), 24<sup>th</sup> November 2020, 3<sup>rd</sup> May 2021, and 10<sup>th</sup> August 2021 (N'Tiola, Viper, Domba, Koting, Morila Pit 5), and 17<sup>th</sup> January 2022 and 28<sup>th</sup> January 2022 (Morila Gold Production, Ore Reserves and Production Targets).

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APPENDIX 1: SIGNIFICANT INTERSECTIONS FROM MORILA DRILLING

Hole ID	Туре	Easting	Northing	RL	Dip	Azimuth	Depth	From	То	Interval	Au (g/t)
MRD0003	DD	734694	1292618	324	-50	180	430.1			NSI	
MRD0010	DD	733906	1292383	366	-85	270	371.0	242.2	280.9	37.8	1.02
							incl.	264.9	279.9	15.0	1.77
							incl.	275.3	279.9	4.6	3.55
								308.0	319.1	11.1	1.10
MRD0011	DD	733848	1292223	361	-90	000	324.1	204.1	207.5	3.3	7.12
							incl.	204.1	205.0	0.9	25.0
								244.7	257.6	12.9	0.86
							incl.	244.7	249.5	4.8	1.31
MRD0012	DD	733851	1292203	360	-80	90	299.5	238.8	243.6	4.8	1.44
								262.5	280.5	18.0	1.58
							incl.	265.4	273.9	8.5	2.81
							incl.	268.4	273.9	5.5	3.63
MRD0013	DD	733846	1292183	359	-65	090	309.8	109.1	113.0	3.9	1.35
								129.8	143.8	14.0	1.60
							incl.	135.7	143.8	8.1	2.57
								172.8	181.0	8.2	1.53
								259.4	262.8	3.4	2.30
MRD0014	DD	733842	1292098	352	-70	090	457.5	330.1	335.9	5.8	1.83
MRD0015	DD	733906	1292283	360	-90	000	385.9	168.8	176.3	7.5	5.99
							incl.	170.5	173.2	2.7	15.9
								227.3	234.3	7.0	2.36
							incl.	229.6	233.3	3.7	3.57
								279.4	296.2	16.8	3.02
							incl.	288.7	295.0	6.3	6.95
MRD0016	DD	733897	1292263	360	-90	000	373.2	225.0	236.2	11.2	1.00
							incl.	225.0	227.1	2.1	3.26
								266.7	288.4	21.7	1.40
MRD0017	DD	733948	1291928	336	-60	090	255.7	132.7	133.9	1.2	1.15
								198.2	199.2	1.0	1.27
MRD0018	DD	733948	1291928	336	-70	270	351.2	236.4	239.2	2.8	23.7
							incl.	236.4	237.2	0.8	82.0
								263.0	278.0	15.0	7.61
							incl.	267.2	276.2	9.0	11.1
								279.9	284.5	4.6	2.41



Hole ID	Туре	Easting	Northing	RL	Dip	Azimuth	Depth	From	То	Interval	Au (g/t)
MRD0019	DD	734648	1292632	324	-47	180	508.1	476.8	477.8	1.0	3.41
								488.0	488.9	0.9	4.17
MRD0024	DD	733905	1292285	360	-80	270	370.7	263.3	281.7	18.4	1.39
							incl.	271.6	281.7	10.1	2.16
							incl.	276.3	280.8	4.5	3.60
MRD0028	DD	734720	1292615	325	-54	180	412.8	315.2	319.2	4.0	13.6
MRD0029	DD	733875	1292305	364	-87	270	391.7	220.5	223.9	3.5	1.98
								255.0	262.0	7.0	1.07
								303.8	305.9	2.1	5.80

#### Notes:

- intersections shown are all intersections > 1m in length (downhole) at > 2g/t Au
- results in this release were derived using the fire assay technique. Analysis by the more accurate screen fire assay technique is in progress.
- for further information as prescribed by the JORC Code refer to Appendix 2.



# APPENDIX 2: JORC CODE, 2012 EDITION – TABLE 1 EXPLORATION RESULTS, 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> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Samples were collected using diamond core (DD) drilling and reverse circulation (RC) drilling.</li> <li>For DD drilling half core samples were collected an approximately 1 metre intervals with the entire sample crushed and pulverised at an external laboratory prior to sub sampling for assay. The core size for the mineralised intervals was NQ2 (50.6mm diameter).</li> <li>For RC drilling samples were on one metre intervals using 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 for analysis or between 2 and 3 kg in a prenumbered cotton sample bag.</li> <li>At the laboratory the entire sample is pulverized and a 30g charge is collected for fire assay/AAS analysis.</li> </ul>
Drilling techniques	• 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> <li>Diamond drilling has been completed using conventional wireline diamond drilling techniques.</li> <li>HQ drilling (63.5mm diameter) was undertaker in the weathered profile.</li> <li>Once competent rock was encountered NQ2 (50.6mm) diameter drilling was used to continue the holes.</li> <li>RC drilling used a face sampling bit with a nominal 5.5" hole diameter.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Core recoveries were measured run by run and average 99.7% over the hole, with recoveries of 100% in the interval reported.</li> <li>Standard techniques are used to ensure all core is recovered from drilling.</li> <li>RC recoveries for the primary sample were observed and estimated qualitatively, with the sub-samples weighed as a quantitative measure.</li> <li>The entire RC sample was collected from the</li> </ul>

cyclone and subsequently split by hand in a



Criteria	JORC Code explanation	Commentary
		riffle splitter to maximise representivity.  No relationship exists between sample recovery and grade in the results reported.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drill core and RC chips have been geologically logged in their entirety by geologists. The logs are sufficiently detailed to support Mineral Resource estimation. Logged criteria included lithology, alteration, alteration intensity, weathering, grainsize and sulphides.</li> <li>Geological logging is qualitative in nature although percentages of sulphides and veins are estimated along with structural measurements.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>For core drilling, core was split into halves using a diamond saw, unless soft, in which case a chisel was used. The core was sampled at approximately 1m intervals (taking care to observe contacts and other geological features) then placed in a cloth bag and submitted to an external laboratory</li> <li>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 unbiassed samples.</li> <li>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.</li> <li>All techniques were appropriate for collecting statistically unbiased samples.</li> <li>Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%.</li> <li>Field duplicates are inserted every 20 samples</li> <li>Blanks (derived from unmineralized river sand) and Certified reference material standards (CRMs) are inserted alternately every 20 samples</li> <li>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.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the</li> </ul>	<ul> <li>DD samples were analysed for gold at the laboratory at Morila. The laboratory is located on site but is operated by MSALABS, an independent third party.</li> <li>Sample preparation comprised of the following:</li> </ul>

**Firefinch Limited** ABN: 11 113 931 105 **ASX: FFX** 



#### Criteria **JORC Code explanation** Commentary analysis including instrument make and drying all samples and crushing (for core model, reading times, calibrations factors samples). applied and their derivation, etc. o Pulverise entire sample to 95% passing 75 Nature of quality control procedures microns (all samples). adopted (e.g. standards, blanks, o A 30g sub sample analysed by fire assay with duplicates, external laboratory checks) AAS finish. and whether acceptable levels of accuracy (i.e. lack of bias) and precision QA/QC programme comprises Certified have been established. Reference Materials, replicates, duplicates, and blanks. Laboratory checks include o Every 50th sample is screened to confirm % passing 2mm and 75 microns. o 1 reagent blank every 84 samples 1 preparation blank every 84 samples 2 weighed replicates every 84 samples o 1 preparation duplicate (re split) every 84 samples o 3 SRMs every 84 samples o 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. Verification verification significant Firefinch drill hole data was compiled and of intersections by either independent or of sampling digitally captured by Company geologists at alternative company personnel. and assaying the drill rig. Drilling and sampling procedures The use of twinned holes. have been developed to ensure consistent Documentation of primary data, data sampling practices are used by site personnel. entry procedures, data verification, data All drilling and exploration data are stored in (physical and electronic) storage the company database which is hosted by an protocols. independent geological database consultant. Discuss any adjustment to assay data. 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. Location of Accuracy and quality of surveys used to Drill hole collars are located using DGPS or RTK locate drill holes (collar and down-hole data points GPS. surveys), trenches, mine workings and Down hole dip and azimuth are collected using other locations used in Mineral Resource a Gyro measuring every 20 to 50m for RC estimation.



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	<ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>drilling.</li> <li>Coordinates are recorded in UTM WGS84 29N and Morila PT58 grid.</li> <li>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.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Current Morila drilling will be incorporated into an extensive drilling dataset at sufficient spacing to establish grade and geological continuity and define a Mineral Resource (refer ASX Announcement 8<sup>th</sup> February 2021).</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Mineralisation at Morila is hosted in a sequence of relatively flat lying stacked veins located 70 - 130m below surface. Drilling is generally vertical or steeply dipping, resulting in intersection angles on the mineralised zone being almost perpendicular.</li> <li>The relationship between drilling orientation and structural orientation is not thought to have introduced a sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are delivered from the drilling site in batches for each drill holes to the laboratory with appropriate paperwork to ensure the chain of custody is recorded.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>QAQC checks of individual assay files are routinely made when the results are issued.</li> <li>A QAQC report for the entire program is generated and reviewed to document any laboratory drift or assay bias.</li> </ul>



## **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> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Morila, N'Tiola and Viper Deposits lie 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.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Focused systematic regional exploration of the Morila area began in the mid 1980s. Soil anomalies were followed up in the early 1990s by BHP through limited diamond drilling which intersected ore grade mineralisation.</li> <li>Subsequent acquisition of the permit by Randgold Resources Ltd. in the late 1990s resulted in renewed exploration activity. Trenching was carried out across the oxide outcrop of the orebody with the "Discovery Trench" intersecting 8.90 g/t over 209 metres. This was followed by the completion of 178 diamond holes to define a maiden Mineral Resource.</li> <li>Based on a positive feasibility study, construction was initiated in mid 1999. Commissioning of the plant began on the 4th October 2000 and first gold was poured on 16th October 2000.</li> <li>Anglogold Ashanti became a JV partner in the project at the construction phase and was the manager of the operation until February 2008, when Randgold resumed operational responsibility for the project. Randgold was acquired by Barrick Gold in a US\$6.5 billion transaction which completed in January 2019.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>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.</li> <li>The Morila orebody is developed within upper greenschist to amphibolite facies of pelitic and psammitic rocks. Their mineralogy is dominated by biotite (30%), plagioclase (30%)</li> </ul>



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		<ul> <li>and occasionally the gold is locked within silicate minerals (&lt;5%).</li> <li>Mineralisation is hosted in a sequence of relatively flat lying stacked veins located 70 - 130m below surface. Mineralisation does steepen due to shearing and faulting in certain places.</li> <li>Various theories have been derived for the genesis of mineralisation at Morila and several</li> </ul>
		<ul> <li>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.</li> </ul>

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Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>All drill hole information from the current phases of drilling is reported in the Appendices.</li> <li>Previous and historical drilling has been extensively detailed in previous ASX Announcements.</li> <li>The Company confirms that there are no material changes to any of the information previously released.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>All intersections have been weighted based on sample intervals, which are approximately 1m in length.</li> <li>Top cuts have not been used.</li> <li>Metal equivalent grades have not been stated.</li> </ul>
Relationship between mineralisati on widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Mineralisation is relatively flat lying with drilling being generally vertical, with some holes oriented -70 degrees to the west. Due to the attitude of the orebody intersection angles on the mineralised zone are at a high angle and almost perpendicular but further data will be required to determine true width.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	Appropriate maps and sections are provided in the text
Balanced reporting	<ul> <li>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.</li> </ul>	All drillhole intersections are reported.

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Other substantive exploration data	<ul> <li>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         <ul> <li>size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> </li> </ul>	• The Morila Project has been in operation since 2000 with exploration activities completed prior to that. As a consequence 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> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	As detailed in the text