

# ASX: EQX | 12 October 2023 | ASX RELEASE

# PRIORITY TARGETS IDENTIFIED AT THE NIMBA IRON ORE ALLIANCE PROJECT & GREEN INITIATIVES COMMENCED

Equatorial Resources Limited (**Equatorial** or **Company**) is pleased to announce the identification of five high priority iron ore targets with direct shipping ore (**DSO**) potential at the Nimba Alliance Iron Ore Project (**Project**) in Guinea.

This achievement coincides with the Company's strategic commencement of green initiatives to reduce Greenhouse Gas (**GHG**) emissions in the iron ore value chain and promoting sustainable practices in Africa.

### **Priority Targets:**

- Five significant high priority, near surface iron ore targets identified, with a total strike potential of approximately 55km, comprising friable itabirite, compact magnetite, and detrital "canga" mineralisation.
- 10km detrital "canga" target has been defined at the northern base of the Nimba iron ore range that is analogous with and located within 3km of Robert Friedland's High Power Exploration (**HPX**) Nimba iron ore project.
- Historical wide spaced diamond drilling by Societe des Mines de Guinea (SMFG), a former alliance between BHP, Areva and Newmont, returned significant drill intercepts over in Nimba North T5 prospect (13km target) including 14m @ 60.7% Fe (NN0003D) and 12m @ 55.8% Fe (NN0004D).
- Project is in the Nimba corridor, where several international mining companies have initiated iron ore projects. These include HPX, Niron Metals, Al Khaldiya Mining, Al Maktoum Company, and ArcelorMittal.
- An exploration field program will commence shortly to test the scale of these five high priority targets.

#### **Green Initiatives:**

- Equatorial is actively exploring initiatives aimed at minimising its GHG emissions across the entire iron ore value chain, including Scope 1 and 2 emissions from any potential future operations and Scope 3 downstream emissions from steel manufacturers who purchase iron ore.
- Major iron ore producers are working with their customers (i.e. steel manufacturers) to reduce GHG emissions of iron ore customers during the conversion of iron ore to steel, given that these Scope 3 downstream emissions account for the majority of the reportable GHG emissions of iron ore producers.
- Equatorial aims to develop iron ore deposits that have the potential to deliver a net zero emission solution within the iron ore value chain. This means that the Company aims to achieve a balance between the GHG emissions it produces and the GHG emissions it removes from the atmosphere, effectively resulting in no net contribution to global warming.

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Figure 1 – Priority Targets Defined

## **Targeted Areas**

Based on the historical data review and previous on-the-ground reconnaissance, Equatorial has identified five (5) priority iron ore target areas at the Project (refer Figure 1):

- Total Detrital "canga" target, ~ 25km strike target
- Hard rock target T5, ~ 13km strike target
- Hard rock target T60, ~ 7km strike target
- Hard rock target T28, ~ 5km strike target
- Hard rock target T57, ~ 5km strike target

#### Hard Rock Targets

Historical drilling campaigns, including diamond core (**DD**) drilling and reverse circulation (**RC**) drilling conducted by SMFG between 2008 and 2011, have yielded valuable data. A total of 10 RC holes for 729m and 25 diamond drill holes for 2,753.7m were drilled in the project area.

Notably, drilling at the T5 Prospect intersected high-grade iron <u>from surface</u>, such as hole NN0003D (14m @ 60.7% Fe) and hole NN0004D (12m @ 55.8% Fe).

The Company plans to test the extent of this high grade itabirite at the priority T5 prospect, during the upcoming field and drilling programs. T5 has a magnetic response from airborne magnetic surveys of ~13km.



Figure 2 – Cross Section at T5 of Historical Drill Holes Showing Hematite Cap

## Detritral/Canga Targets

Subsequent to SMFG ownership, the previous owners engaged SRK to undertake remote sensing, ground penetrating radar, and field mapping and sampling to define potential derital DSO targets. Two significant DSO targets were identified by SRK (refer Figure 1) which include:

- Northern Sable prospect; and
- Nion prospect.

These targets are considered by Equatorial to reflect selective mapping by SRK with potential to define extensive detrital iron along the entire base of Mount Nimba.

Figure 3 below shows detrital pits and samples taken by SRK.



Figure 3 – Canga Mineralisation (Left) and Lateritic Iron Cover (Right)

Equatorial plans to prioritise the detrital target and determine whether the base of Mount Nimba is prospective for more DSO detrital/canga mineralisation equivalent to the Robert Freidland backed HPX Nimba iron ore project.

### The Problem with the Iron Ore Value Chain Today<sup>1</sup>:

Steel production is highly energy - and emissions-intensive, accounting for around 8% of global energy demand and 7% (2.6 Gt CO<sub>2</sub>) of total emissions from the energy system.

Steelmaking has two main metallic inputs: iron ore and recycled steel scrap. Around 70% of the total metallic input to steel production globally is derived from iron ore, with scrap making up the rest. Primary steel production refers to operations where iron ore is the main input, but scrap typically accounts for up to 15-25% of the metallic input in primary production.

The blast furnace is the major piece of equipment used for primary steelmaking. Secondary (or scrap-based) production is carried out in electric furnaces and is less energy-intensive as production from iron ore, using electricity – as opposed to coal – as the main energy input.

Energy and raw materials account for 60-80% of steel production costs combined. Energy efficiency improvements in recent decades have led to modest reductions in energy consumption and emissions, but each tonne of steel produced today still results in  $1.4 \text{ t } \text{CO}_2$  of direct emissions on average.

#### Scope 1, 2, and 3 Emissions for Iron Ore<sup>2</sup>:

Scope 1 (direct emissions) emissions in the iron ore sector pertain to direct GHG emissions that are generated from activities within the control and ownership of a company or operation. These emissions are produced onsite and result from activities such as the combustion of fossil fuels (like coal or diesel) for powering machinery and equipment, as well as from chemical reactions in iron ore processing. In the iron ore context, Scope 1 emissions could include emissions from equipment used in mining, processing, and transportation of iron ore. These emissions are considered direct because they originate directly from the operation's activities.

Scope 2 emissions are indirect GHG emissions that are associated with the consumption of purchased energy, specifically electricity, heat, or steam, that a company uses for its operations. In the iron ore sector, Scope 2 emissions arise from the energy sources used for various processes, such as ore beneficiation, crushing, and smelting. These emissions occur off-site, but they are connected to the energy demand of the operation. They encompass the emissions from the power plants or energy suppliers that provide the electricity, heat, or steam to the iron ore facility.

Scope 3 emissions represent a broader category of indirect emissions that extend beyond a company's operational boundaries and include the **entire value chain** of its products. In the context of the iron ore sector, Scope 3 emissions cover emissions associated with activities beyond the mining and processing stage. This includes emissions from the transportation of iron ore to steel mills, emissions generated during the steelmaking process, emissions from the use of iron and steel products by customers (e.g., in construction), and even emissions from the end-of-life disposal of these products.

Major iron ore producers are working with their customers (i.e. steel manufacturers) to reduce GHG emissions of their customers during the conversion of iron ore to steel, given that these Scope 3 downstream emissions account for the majority of the reportable GHG emissions of iron ore producers.

<sup>&</sup>lt;sup>1</sup> Iron and Steel Technology Roadmap (IEA)

<sup>&</sup>lt;sup>2</sup> Scope 1, 2 and 3 Emissions Calculation Methodology 2022

### **COMPETENT PERSONS STATEMENT**

The information in this announcement that relates to historical exploration results is based on information reviewed by Mr Beau Nicholls, a Competent Person who is a Fellow of the Australian Institute of Geoscientists. Mr Nicholls is a consultant to Equatorial. Mr Nicholls has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Nicholls consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

### FORWARD LOOKING STATEMENTS

Statements regarding plans with respect to Equatorial's project are forward-looking statements. There can be no assurance that the Company's plans for development of its projects will proceed as currently expected. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement

This announcement has been authorised for release by the Company's Managing Director, Mr John Welborn.

# Appendix 3 – JORC Code, 2012 Edition – Table 1 Report

#### 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 (eg 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 (eg '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 (eg submarine nodules)</li> </ul>	<ul> <li>Driling results pertaining to the Project have been completed by SMFG in 2008 and 2010-2011. 10 RC holes for 729m and 25 Diamond drill holes for 2753.7m have been drilled in the project area.</li> <li>12 rockchip samples taken in 2021 were assayed via laboratory XRF.</li> <li>Drill core was sampled at 2m intervals and RC holes were sampled at 2m intervals.</li> <li>Drill hole locations were surveyed using RTK GPS equipment achieving sub metre accuracy in horizontal and vertical position.</li> <li>The diameter of the Diamond holes was HQ, HWT and NWT. RC drill diameter 134 and 150mm rods.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul> <li>DD HQ/HWT/NTW 25 holes for 2753.7m (2010-2011)</li> <li>RC 10 holes for 729m (2008)</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>Drill hole recoveries were recorded during logging by measuring the length of core recovered per 1m interval. No recoveries available for RC drilling.</li> <li>Whole hole was sampled at 2m intervals</li> <li>Complete hole sampled and assayed</li> <li>No relationship between recovery and grade has been identified to date in the data review stage.</li> </ul>
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 was geologically logged by SMFG geologists and independent geologists, using the company geological logging legend. All diamond core and RC chip samples geologically logged in full. Logging legend has not been seen by Competent Person with geological logs provided as PDF sheets only.</li> <li>Drill core logging records lithology, weathering, colour and other features of the samples.</li> <li>Drill logs have been provided for 20 of the DD and limited information of the 10 RC holes.</li> </ul>
	<ul> <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>No procedures have been provided to date although review of drill assays available show that certified Geostats standards, field duplicates and blanks were inserted at ~ 2.5</li> <li>No information provided on sample representivity or duplicate samples.</li> <li>Sample sizes are considered appropriate to give an indication of mineralisation at this early stage of exploration.</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</li> </ul>	<ul> <li>DD samples were assayed at ALS (Ireland) using ME-XRF21u and OQ-GRA05 (LOI 1000C).</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Airborne magnetic geophysical survey completed in 2011 by Bell Geospace with north-south,200m line spacing.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No verification of intersections has been undertaken.</li> <li>At the prospect scale the quality of data is currently considered acceptable for exploration purposes. Further investigation and validation will be undertaken as work programs progress.</li> <li>There have been no twin holes drilled at the Project.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>GPS coordinates of drill hole locations were captured using a RTK GPS in UTM WGS84 Easting/Northing coordinates with metric accuracy in horizontal and vertical position.</li> <li>WGS84 Zone 29N</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>Variable and is relevant for the stage of the project.</li> <li>The data density is sufficient to test the style of mineralisation at the Project with respect to exploration targeting. Data spacing range from 100's meters to sub 20m.</li> <li>2m composites for diamond core have been analysed</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>No known bias of sampling is known. Further work is to be completed on the project to define mineralisation and geology orientation</li> <li>This is not currently considered material.</li> </ul>
Sample security Audits or	<ul> <li>The measures taken to ensure sample security.</li> <li>The results of any audits or reviews of sampling techniques and data</li> </ul>	<ul> <li>No information is available on the RC and DD sample security.</li> <li>Rockchip samples were delivered to sample prep laboratory by consultants of SMFG.</li> <li>No specific audits or reviews have been reviewed as part of this review.</li> </ul>
reviews	samping techniques and data.	ieview.

### 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 Nimba Alliance Iron Ore Project (Project) comprises two (2) exploration permits located in the south-east of Guinea in the Lola Prefecture.</li> <li>The Company's subsidiary, Companhia Rio de Ferro Pte. Ltd. (CRF), beneficially owns 100% of Gui-Appro SARL (Gui-Appro), a Guinean private company, which holds the Nimba West exploration permit (Arrete A/2019/4259/MMG), covering an area of approximately 198km<sup>2</sup>.</li> <li>The Company's subsidiary, CRF, beneficially owns 56% of First Metal SARLU (FMS), a Guinean private company which holds the Nimba North permit (Arrete A/2020/2270/MMG/SGG), covering an area of approximately 107km<sup>2</sup>).</li> <li>The Nimba West exploration permit was granted on 27 June 2019 with an initial 3-year term, renewable twice for 2-year periods. The initial term of Nimba West was set to expire on 26 June 2022, however Gui-Appro has applied for the first 2-</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>year renewal of the Nimba West exploration permit. If granted, the term of Nimba West will be extended until 26 June 2024, with one further 2-year renewal available. The initial term is generally extended pending review of such renewal application, which remains at the discretion of the Guinean mining administration. The Nimba West exploration permit is also subject to ministerial approval for any change in indirect control of Nimba West.</li> <li>The Nimba North exploration permit was granted on 5 August 2020 with an initial 3-year term, renewable twice for 2-year periods. The initial term of Nimba North is set to expire on 4 August 2023, however FMS has applied for the first 2-year renewal of the Nimba West exploration permit, which remains at the discretion of the Guinean ministration. The Nimba North exploration permit is also subject to ministerial approval for any change in indirect control of Nimba West exploration permit. Which remains at the discretion of the Guinean mining administration. The Nimba North exploration permit is also subject to ministerial approval for any change in indirect control of Nimba North.</li> <li>The Nimba West permit is adjacent to the Mount Nimba Strict Nature Reserve that is a UNESCO World Heritage Site (UNSECO Site 155). There is a buffer surrounding the nature reserve that may restrict exploration activities over parts of the permit.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Refer to the body of the press release.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Nimba West and North permits lie within the Archean basement and Proterozoic greenstone belts within the Leo Shield of the West African Craton.</li> <li>Archean basement rocks are granite, gabbro and gneiss with Proterozoic Greenstones hosting BIF, quartzites, metasedimentary schists and ampholites.</li> <li>Iron ore mineralisation in the region is known to be hosted as primary and oxidised BIF units and transported/insitu Canga styles.</li> <li>The Project area is covered by colluvium in areas that obscures outcrops and mineralisation.</li> <li>Depth of weathering in drilled areas is approximately 7 to 78m</li> </ul>
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>Drill hole details are provided in Appendix 1.</li> <li>Material drill results have been included in the body of the report, which is considered appropriate for a brownfields exploration project of this type. Owing to the size of the project holdings, summary plan diagrams have also been included. The company is still in the process of compiling exploration information over the project areas and intends to provide additional updates in the future on a project basis</li> <li>N/A</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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>Significant intercepts are reported as down-hole length-weighted averages of contiguous grades above 40% Fe and above a nominal length of 2m. No top cuts have been applied to the reporting of the assay results.</li> <li>Higher grade intervals are included in the reported grade intervals; and have also been split out on a case-by-case basis where relevant.</li> <li>No metal equivalent values are used</li> </ul>
Relationship between mineralisation	<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</li> </ul>	Down-hole lengths are reported.

Criteria	JORC Code explanation	Commentary
widths and intercept lengths	<ul> <li>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 (eg 'down hole length, true width not known').</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>	<ul> <li>Appropriate diagrams, including geological plans, are included in the main body of this release.</li> </ul>
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>	<ul> <li>The exploration results should be considered indicative of mineralisation styles in the Project. Exploration results stated indicated highlights of the drilling and are not meant to represent prospect scale mineralisation. It is considered appropriate to illustrate mineralised and non-mineralised drill holes by the use of diagrams, with reference to the table of significant intercepts.</li> </ul>
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 – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>No other meaningful data is required to be presented other than what has been presented in the body of this announcement.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg 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>	<ul> <li>Future work to be undertaken is required to qualify the previous drilling results including locating original RC drill logs with sample intervals         Acquire and review previous geological mapping and sampling data.         Validation of drill hole locations and relogging of drill holes to be completed         Development of a geological database including all drilling, and surface information to allow evaluation of the potential iron ore mineralisation         Acquire NRG airborne survey data and interpretations from 2008         Review of QAQC in drilling and possible twin hole drill of existing drillholes         Confirmation of the extents of UNESCO World Heritage Site and buffer zone and possible impacts to future exploration work         Confirmation of Nimba West permit renewal application and validity of ownership.         These diagrams are included in the main body of this release.     </li> </ul>