

METALLURGICAL TESTWORK FOR MAYOKO-MOUSSONDJI DELIVERS PREMIUM 64.1% FE GRADE IRON PRODUCT

HIGHLIGHTS

- Metallurgical test results confirm the near surface hematite mineralisation at Mayoko-Moussondji has potential to produce a premium high grade fines iron product, using standard processing techniques.
- Premium fines product grade produced of 64.1% Fe (calcined 65.2% Fe), 4.6% silica, 1.5% alumina and 0.076% phosphorus.
- > Samples were crushed, screened, and wet processed using a typical Pilbara desanding circuit.
- Results are consistent with previously released results for colluvial mineralisation at Mayoko-Moussondji showing high grade iron product potential with low impurities and high mass recovery.
- Larger bulk samples being processed will allow more extensive upgradability testing, lump conditioning and product sinter and quality testing.

Equatorial Resources Limited ("Equatorial" or "the Company") is pleased to announce excellent metallurgical testing results from work conducted on diamond drill core samples of near surface hematite mineralisation from the Makengui Prospect ("Makengui") at the Mayoko-Moussondji Iron Ore Project ("Mayoko-Moussondji" or the "Project") in the Republic of Congo ("ROC"). The results (summarised below in Table 1 and included in detail at Table 2) confirm the potential to produce a premium fines iron product of 64.1% Fe, with high mass recovery, from the near surface mineralisation at Makengui.

Diamond	Drill Core Weigh	nted Mean	Fines Product									
Head Fe Grade %	Mass Recovery %	ss Recovery Fe Recovery %		SiO₂	Al ₂ O ₃	Ρ	LOI 1000					
50.5	60.7	77.0	64.1	4.1	1.8	0.080	1.9					

Table 1: Summary of Diamond Drill Core Metallurgical Test Results

Equatorial's Managing Director and CEO, Mr John Welborn, said "These results continue the excellent work being completed by Dr John Clout, Equatorial's Chief Metallurgical Consultant, that demonstrate the huge advantages of the mineralisation we are delineating at Mayoko-Moussondji. These results are extremely exciting and very important as the test work results relate to the near surface hematite mineralisation which is the target of our on-going drilling campaign and will be the focus of our initial resource estimate. Our business plan for Mayoko-Moussondji is to use existing transport infrastructure to deliver a high grade premium product to the market."

Mayoko-Moussondji Geological Model

The geological model for Mayoko-Moussondji comprises enriched oxide hematite caps overlaying substantial fresh magnetite banded iron formation ("BIF").

Based on the drilling completed to date the following potential ore types have been identified (refer Figure 1 below):

- **DSO (Zone 1)**: Shallow enriched hematite mineralisation which is capable of producing a premium iron product after simple crushing and screening;
- pDSO (Zone 2): Enriched loose and friable hematite mineralisation with a grade of between 40% Fe and 55% Fe that has the potential for simple beneficiation to a premium iron product after simple crushing, wet screening and gravity separation with recoveries over 50%;
- **Colluvial (Zone 3):** Erosion of the DSO and pDSO has resulted in the deposition of colluvial iron mineralisation with a grade of between 40% and 60% Fe on the flanks of hillsides and as valley fill; and
- Magnetite (Zone 4): Transitional and Fresh magnetite BIF with a grade of between 30% Fe and 40% Fe. This
 material can be wet processed to produce a concentrate product with a high iron grade of 69% Fe and mass
 recoveries of 50%.



Figure 2: Schematic Section Makengui Deposit

Mayoko-Moussondji Metallurgical Test Program

Equatorial's metallurgical testing program has been designed in distinct work programs based on the Company's geological model for the different mineralisation types found at Mayoko-Moussondji. The aim of the testing program is to demonstrate the potential to produce a range of premium iron ore products. Results from the work program to date have been very encouraging. Davis Tube Recovery results for the magnetite BIF (Zone 4) returned concentrates of 68.9% Fe with a mass recovery of 50% (see ASX announcement dated 24 April 2012). Simple wet processing of the colluvial iron mineralization (Zone 3) produced a lump and fines product with a combined product grade of 63.4% Fe, 3.4% silica, 3.0% alumina and 0.052% phosphorus with a mass recovery of 61.0% (see ASX announcement dated 26 April 2012).

DSO and pDSO Iron Mineralisation Metallurgical Test Results

Detailed metallurgical and product quality test work on bulk sample and diamond drill core samples of DSO (Zone 1) and pDSO (Zone 2) mineralisation types has been conducted in Perth by SGS Lakefield Oretest Pty Ltd and by NAGROM Laboratories ("NAGROM") under the supervision of Dr John Clout. The results released today are from twelve intervals of iron mineralisation from six diamond drill holes, each weighing approximately 10 to 55kg, collected from the central area of the Makengui prospect. The intersections included typical examples of Zone 1 and Zone 2 hematite mineralisation as well as two samples of the transition between Zone 2 and Zone 4.

Each sample was crushed into lump and fines, wet screened and the fraction below 1 mm beneficiated by gravity separation using a hydrosizer-Wilfley Table combination where sufficient sample mass allowed, or by heavy liquid separation of the -1.0 + 0.50 mm and -0.050 +0.038 mm fractions using a specific gravity of 3.70 g/cm³. The fraction below 1 mm was upgraded at the NAGROM laboratories in Perth Australia where clays and quartz sand were rejected using two stages of hydrosizer, with the final underflow product upgraded using a Wilfley Table. The less than 1 mm flowsheet was designed to simulate a typical Pilbara desanding plant circuit that uses a simple hydrocyclone-upcurrent classifier-spiral circuit. All fractions above 1mm were not beneficiated and so regarded as a Direct Shipping Ore component and included as -8.0 mm fines in the final product grade calculation. The hydrosizer (HS) -Wilfley Table (WT) or heavy liquid (HLS) sinks products were included as the beneficiated component of the product.

The test results are included below in Table 3 and are highly encouraging as they demonstrate mineralisation Zones 1 and 2 have the potential to produce a premium grade iron product. The weighted mean results show a combined fines product mass recovery of 54.5% and Fe recovery of 72.3% and product grade of 64.1% Fe, 4.6% silica, 1.5% alumina and 0.076% phosphorus, and very low levels of other contaminants. The mean product calcined grade, after allowing for removal of crystal water (LOI), was 65.2% Fe.

These exceptional results for Zones 1 and 2 are consistent with those reported previously for the Zone 3 colluvial mineralisation as reported above. Larger bulk samples are currently being processed and will allow for more extensive upgradability testing, lump conditioning and product sinter and lump quality testing.

Sample Details					Calculated Head Assay				Fines Product (-8 +0.038 mm)								
Diamond Drill Hole ID	Depth		Interval		Dry Weight %				Rec	Recovery			Dry Weight %				
	From (m)	To (m)	Length (m)	Zone	Fe	SiO ₂	Al ₂ O ₃	P	LOI 1000	-1mm Process	Mass %	Fe %	Fe	SiO ₂	Al ₂ O ₃	P	LOI 1000
MMKDD0002	13.4	18.0	4.6	1	53.3	17.6	2.7	0.064	2.48	HS-WT	55.5	65.4	62.79	5.89	1.45	0.057	1.58
MMKDD0002	18.0	21.2	3.2	2	51.2	23.9	1.1	0.071	1.42	HLS	73.2	92.7	64.83	4.34	0.94	0.085	1.56
MMKDD0003	2.7	14.7	12.0	1	56.6	13.3	2.5	0.092	2.89	HLS	71.9	82.0	64.50	2.94	1.68	0.100	2.51
MMKDD0003	14.7	47.7	33.0	2	49.6	26.1	1.2	0.077	1.17	HLS	65.8	86.8	65.49	3.40	0.92	0.093	1.13
MMKDD0004	0.0	20.2	20.2	1	51.4	18.3	4.2	0.075	3.63	HLS	54.6	65.4	61.58	4.82	3.23	0.081	3.36
MMKDD0004	20.2	50.0	29.8	Trans	41.1	39.1	0.8	0.064	0.99	HS-WT	32.4	50.7	64.25	6.37	0.53	0.060	0.78
MMKDD0005	0.0	15.6	11.6	1	54.4	13.9	4.2	0.086	3.60	HLS	71.6	82.6	62.79	2.40	3.73	0.099	3.56
MMKDD0005	15.6	39.1	19.0	2	44.2	34.5	1.0	0.051	0.96	HS-WT	46.2	67.6	64.63	5.09	1.17	0.051	0.56
MMKDD0007	1.8	14.6	12.8	1	49.1	22.6	4.1	0.060	2.41	HLS	66.6	85.1	62.78	6.48	2.01	0.064	1.19
MMKDD0031	0.0	9.3	9.3	1	58.2	11.9	2.0	0.078	2.34	HS-WT	56.9	64.7	66.18	1.72	1.50	0.072	1.87
MMKDD0031	9.3	24.0	14.7	2	46.6	28.9	2.1	0.084	2.04	HS-WT	54.6	75.5	64.50	4.42	1.22	0.083	2.00
MMKDD0031	24.0	34.6	10.6	Trans	40.1	39.7	1.3	0.053	1.40	HS-WT	35.5	56.8	64.00	5.63	0.98	0.069	1.50
Weighted Mean			180.8	All	48.3	26.4	2.1	0.071	1.9		54.5	72.3	64.1	4.6	1.5	0.076	1.7
			140.4	1 & 2	50.5	22.7	2.4	0.074	2.2		60.7	77.0	64.1	4.1	1.8	0.080	1.9

Table 3: Diamond Drill Core Metallurgical Test Results

Mayoko-Moussondji Drilling Program and Resource Definition Work

The drilling program underway at Mayoko-Moussondji is designed primarily to target near surface hematite mineralisation and oxide iron mineralisation that is easily upgradeable to a premium product. This material is contained within the enriched supergene zone of the substantial BIF mineralisation which makes up the 46km's of prospective iron strike at Mayoko-Moussondji. The diamond drill holes used for the metallurgical test work are located at the Makengui Prospect which is approximately 12kms long and is located 500 metres from the operational railway line that leads directly to the deep water port of Pointe-Noire.

Currently the Company has completed approximately 40,000m of the planned 70,000m drilling program designed to delineate high grade DSO and pDSO hematite. It is expected that the drilling required for the commencement of work on an initial JORC compliant resource estimate will be completed by the end of the current month. The initial resource estimate is expected to include the drilling completed at Makengui. The initial resource estimate will be independently prepared by the United Kingdom office of international resource industry consultants CSA Global Pty Ltd.



Figure 4: Location plan of Metallurgical Diamond Drill holes

For further information contact:

John Welborn Managing Director & CEO Telephone: +61 8 9466 5030 Email: <u>info@equatorialresources.com.au</u> Web: <u>www.equatorialresources.com.au</u>

ABOUT EQUATORIAL RESOURCES

Equatorial Resources Limited (ASX:**EQX**), is focused on the exploration and development of two 100% owned potentially large-scale iron ore projects located in the politically stable and investment friendly Republic of Congo ("**ROC**") in the emerging global iron ore province of Central West Africa.

The **Mayoko-Moussondji Iron Project**, located in the southwest region of the ROC, has an estimated global exploration target of between 2.3 and 3.9 billion tonnes¹ of iron mineralisation at a grade of 30% to 65% Fe. The project has access to a rail line running directly to the deep-water port of Pointe-Noire, where the Company's administrative office is located.

The **Badondo Iron Project**, in the northwest region of ROC, has an estimated global exploration target of between 1.3 and 2.2 billion tonnes¹ of iron mineralisation at a grade of 30% to 65% Fe. The project is located within a regional cluster of world-class iron ore exploration projects including Sundance Resources' Mbalam and Nabeba projects.



For further information contact:

John Welborn Managing Director & CEO

Telephone: +61 8 9466 5030

Email: info@equatorialresources.com.au

Web: www.equatorialresources.com.au

1 Exploration Target: The estimates of exploration target sizes mentioned in this announcement should not be misunderstood or misconstrued as estimates of Mineral Resources. The potential quantity and grade of the exploration targets are conceptual in nature and there has been insufficient exploration to define a Mineral Resource in accordance with the JORC Code (2004) guidelines. Furthermore, it is uncertain if further exploration will result in the determination of a Mineral Resource.

The information in this report that relates to Exploration Results, other than Metallurgical Test Results and Geophysical Exploration Results, is based on information compiled by Mr Mark Glassock, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Glassock is a full time employee of Equatorial Resources Limited. Mr Glassock has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Glassock 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 report that relates to Metallurgical Test Results is based on information compiled by Dr John Clout who is a Fellow of the Australasian Institute of Mining and Metallurgy. Dr Clout is a consultant to Equatorial Resources Limited. Dr Clout has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Clout 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 Geophysical Exploration Results is based on information compiled by Mr Mathew Cooper (B.App.Sc (Geophysics) Hons.) of Resource Potentials Pty Ltd, who was engaged by Equatorial Resources Limited to provide geophysical consulting services. Mr Cooper is a member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cooper consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.