

Dutwa whittle optimisation report.

01.03.2011 | [Globenewswire Europe](#)

African Eagle Resources plc
WHITTLE OPTIMISATION REPORT, DUTWA NICKEL PROJECT, TANZANIA

African Eagle Resources plc (AIM: AFE; AltX AEA) is pleased to announce that it has received a report on Whittle Optimisation for its Dutwa nickel project in Tanzania. The optimisation, by independent mining consultancy Snowden Mining Industry Consultants, provided mining and processing schedules for the new financial model and a mining plan for use in determining the mining costs at Dutwa.

The study showed that mining costs will be low, with a strip ratio approximately 0.5 to 1, and concluded that on current evidence, the Dutwa Project is likely to be economically viable, irrespective of whether agitated tank leach or heap leach is eventually chosen as the process route.

African Eagle's Managing Director Mark Parker comments: "This is an important component of our planning for Dutwa Nickel Mine and one of the key inputs to our financial modelling. It is encouraging that a large fraction of the resource reports to inventory, even at the low long-term nickel price which we assumed at this stage".

As announced in December, African Eagle and its contractors have built and populated a new financial model for the Dutwa Nickel Project. As part of this exercise, Snowden developed preliminary optimised mine plans and mining schedules based on the October 2010 inferred mineral resources block model, using estimates for mining and processing costs provided by African Eagle and its other contractors, Simulus and AMEC Minproc.

The exercise compared six production scenarios: two different process routes: atmospheric agitated tank leaching (AL), and heap leaching (HL), each with three different processing rates (2 Mtpa, 3 Mtpa and 5 Mtpa). Snowden developed technical cashflow models of operating costs for each scenario.

Snowden concluded that, on information currently available, the Dutwa Project is likely to be economically viable, irrespective of which of these process routes is eventually chosen as a preferred option. The optimisation will be revised when the resource model has been upgraded from inferred to indicated or measured category under the JORC code; as better geotechnical data become available and as confidence improves in the capital and operating cost estimations.

Because the Dutwa deposits are at the surface, mining will be relatively straightforward and the waste to ore strip ratio very low, between 0.45 and 0.53 to one. The optimisations indicated that best financial results were obtained if a stockpile of up to 30Mt is accumulated to accommodate the mining rate and to defer the presentation of low grade material to the plant.

The optimisation indicated economic cut-off nickel grades of 0.65% for AL and 0.67% for HL, for a nickel price of \$7.50 per lb. These gave mining inventories for the 3 Mtpa and 5 Mtpa process routes as summarised in the tables below. These inventories can be expected to be larger for higher nickel prices.

Dutwa project mining inventories and ore grades at 3Mtpa and US\$7.5/lb Ni

	Ore Mt	Ni %	Co %	MgO %	Al(2)O(3)%	Fe(2)O(3)%	SiO(2)%	eNi %
AL Case	78.17	0.97	0.03	8.95	1.90	12.20	62.27	0.99

HL Case	72.10	0.99	0.03	9.00	1.87	12.23	62.18	1.02	
+-----+		+-----+		+-----+		+-----+		+-----+	

Dutwa project mining inventories and ore grades at 5Mtpa and US\$7.5/lb Ni

	Ore Mt	Ni %	Co %	MgO %	Al(2)O(3)%	Fe(2)O(3)%	SiO(2)%	eNi %	
AL Case	82.22	0.95	0.03	8.94	1.91	12.18	62.28	0.98	
+-----+		+-----+		+-----+		+-----+		+-----+	
HL Case	78.34	0.97	0.03	8.97	1.90	12.20	62.20	0.99	
+-----+		+-----+		+-----+		+-----+		+-----+	

Qualified Person

Information in this report is based on Whittle open pit computer simulations completed by Frank Blanchfield BEng (Mining), MAusIMM. Frank Blanchfield is a member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and is Divisional Manager, Mining and a full-time employee of Snowden Mining Industry Consultants Pty Ltd. Frank Blanchfield consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Information in this report relating to Mineral Resources is based on work completed by Richard Sulway BSc, MAppSc, MAusIMM (CP). Richard Sulway is a member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to 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" (the JORC Code) and is hence a Qualified Person under AIM rules. Richard Sulway is a full-time employee of Snowden Mining Industry Consultants Pty Ltd. Richard Sulway consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Technical terms

A glossary of technical terms used by African Eagle in this announcement and other published material may be found at www.africaneagle.co.uk/p/glossary.asp.

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Dutwa Project Overview

African Eagle is developing the major Dutwa nickel project in Tanzania. The Company discovered Dutwa in 2008 and is now conducting a pre-feasibility study for the project.

Economic modelling in late 2010 indicated a pre-tax project NPV of US\$650 million at a nickel price of \$8/lb, with an estimated average cash cost of \$3.37/lb nickel. The model was based on throughput of 3 million tonnes per year for 26 years with processing by atmospheric tank leaching to a mixed hydroxide intermediate product, requiring estimated initial capital expenditure of \$600M and yielding life of mine earnings of \$8.2bn at \$8/lb nickel. The mining schedule was derived from Whittle optimisations of block models of an October 2010 inferred mineral resources. The financial models will be progressively improved as the feasibility study progresses.

Mineral resources are currently 98.6 million tonnes grading 0.93% nickel and 0.02% cobalt, of which 46.2 million tonnes are in the JORC indicated category and the remainder in the JORC inferred category. The Company believes that further drilling will increase the total resource by up to 10Mt.

The Dutwa project consists of two nickel laterite deposits which form the caps of two ridges about 7km apart. The current JORC mineral resources, at a 0.43% nickel equivalent cut-off, are 98.6Mt grading 0.93% nickel and 0.02% cobalt, containing in total 948,000 tonnes nickel metal equivalent. Of this, about half is now in the indicated category and half in the inferred. Because the deposits are at the surface, mining will be straightforward and strip ratios very low. The Ni equivalent (eNi) was calculated using the formula:

$$\text{NiEq} = \text{Ni} + [\text{Co} * (\text{RCo}/\text{RNi}) * (\text{PCo}/\text{PNi})]$$
$$= \text{Ni} + (\text{Co} * 1.32)$$

using metal prices (P) of US\$10/pound Ni and US\$17/pound Co, and metal recovery factors (R) of 90% for Ni and 70% for Co, derived from metallurgical test work conducted by African Eagle.

The Company believes that the resources can be increased by another 8Mt to 10Mt with further drilling. There is also future upside at Zanzui, 50km to the south, where the Company is evaluating another significant nickel laterite resource, and at Nyawa, 15km west of Dutwa.

Metallurgical tests have shown that the nickel ores are unusually easy to process, giving good recoveries from heap or tank leaching at atmospheric pressure, with no need for costly high pressure acid leach (HPAL).

African Eagle currently holds a 90% interest in the eastern Wamangola deposit, which hosts approximately 60% of the total Dutwa resource, with an option to acquire 100%. The smaller western Ngasamo deposit is subject to a joint venture between African Eagle and the SAFINA Group of the Czech Republic under which African Eagle is in the process of earning an interest of between 50% and 75% by conducting and funding evaluation work there.

On completion of the feasibility study covering both deposits, African Eagle's own interest in Wamangola, together with the two companies' respective joint venture interests in Ngasamo will be converted into equity in the mining company formed to develop and operate the combined project. African Eagle estimates that it will then hold about 76% of the equity.

There is also future upside at Zanzui, 50km to the south, where the Company is evaluating another significant nickel laterite resource, and at Nyawa, 15km west

of Dutwa.

About African Eagle

Since discovering a major nickel oxide deposit at Dutwa in Tanzania, African Eagle is in transition from an explorer into a nickel company. The company completed a positive scoping study on the Dutwa deposit in July 2009 and is now working towards a feasibility study.

In addition to Dutwa, African Eagle is also evaluating a second promising nickel oxide at Zanzui, which is located 60 km from Dutwa. The Company holds a 49% interest in the Mkushi Copper Mines joint venture in Zambia, for which a draft feasibility study was completed in Q4 2008. It also holds a half million ounce gold resource at the Miyabi project in Tanzania, and a portfolio of gold and base metal exploration assets, including two projects in the Zambian Copperbelt.

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Source: African Eagle Resources PLC via Thomson Reuters ONE

[HUG#1492917]

Unternehmen: African Eagle Resources PLC - ISIN: GB0003394813

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Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/100176--Dutwa-whittle-optimisation-report.html>

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