

## AFRICAN ENERGY RESOURCES LIMITED ARBN 123 316 781

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29 January 2009

Manager Announcements Company Announcements Office Australian Securities Exchange 10th Floor, 20 Bond Street SYDNEY NSW 2000

via electronic lodgement

#### QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2008

#### **HIGHLIGHTS**

#### **Chirundu Feasibility Study**

- The Bankable Feasibility Study (BFS) to evaluate the Njame and Gwabe deposits in the Chirundu JV
  continued during the quarter, with an emphasis on geotechnical studies, metallurgical test-work and a
  review of mining options.
- A rolling-bottle study to evaluate the chemical/metallurgical variability within and between the Njame and Gwabe deposits concluded that there was no material variability in the Njame deposit and only minor variability at the Gwabe deposit in terms of their acid consumptions and uranium recoveries. In general, uranium recoveries were high to very-high and acid consumption was relatively low. Column leach test studies to further evaluate and then optimise reagent consumption and uranium recovery will commence next quarter.
- Assay results from the infill drilling programmes at Njame and Gwabe were received, with these results
  confirming the presence of significant uranium mineralisation at both deposits. These assays are being
  used to develop a Measured and Indicated resource statement for the project which will be announced
  after an independent expert review in Q1 2009.

#### **Exploration**

Assay results from the 100% AFR owned Sitwe uranium target in northern Zambia have confirmed the
presence of extensive surface uranium anomalism associated with an 8km long airborne radiometric
anomaly in Karoo sediments. This new discovery is approximately 100km to the southwest of Paladin's
Kayelekera uranium mine and occurs in the same broad package of rocks. Further geochemical soil
sampling and drilling is required to evaluate its significance.

#### Corporate

• The Company's Directors reviewed the cash flow forecasts of the Company for 2008-2009 in light of the global financial crisis and its potential impact on uranium prices and global equity and credit markets during 2009. As a result of this review, the Company has suspended exploration activities until further notice and postponed the engineering aspects of the Bankable Feasibility Study at Chirundu. This situation will be reviewed on an ongoing basis. The deferred aspects of the BFS would take approximately six months to conclude once they have recommenced.

#### Outlook

- Continue Bankable Feasibility Study for Chirundu JV, with an emphasis on metallurgical test work, geotechnical studies and mining options studies during the next quarter.
- Preparation of updated resource estimate at Njame and Gwabe to Measured and Indicated resource categories as defined under JORC standards. Expected in Q1 2009.

#### **PROJECTS**

#### 1. Northern Luangwa Valley Uranium Project, Zambia

#### African Energy Resources Limited 100%

Geochemical soil sampling in the Mulipo prospecting licence (part of the Northern Luangwa Valley Project) has discovered surface uranium anomalism associated with an 8km long airborne radiometric anomaly, approximately 5km north of Sitwe village in northern Zambia. Field evaluation of the Sitwe airborne radiometric anomaly indicates that there is a close spatial association between the anomaly and shallow-dipping inter-bedded fine sandstones and siltstones over a strike-length of approximately 8km. The siltstones and sandstones are interpreted to be Karoo aged sediments similar to those which host Paladin's Kayelekera uranium mine in Malawi, which is approximately 100km to the northeast of Sitwe.

A programme of geochemical soil sampling (400 metres by 50 metres sample spacing) was completed over the southern half of the primary target, and a further two lines were completed over a secondary target 2km to the west. A total of 81 samples were collected for assay. The soil samples were analysed for uranium using a Radiation Solutions RS-125 hand-held spectrometer, with every second sample also analysed by X-Ray Fluorescence (XRF) at ALS Chemex Laboratories in South Africa.

Assay results from the RS-125 hand-held spectrometer were very encouraging, with anomalous assay values highlighting an elongated zone of uranium anomalism corresponding to silty sediments within an interbedded siltstone-sandstone association. A peak value of 66ppm eU was recorded. Assays derived from the XRF analysis at ALS Chemex Laboratories confirmed the anomalism. The anomaly remains open to the north where the airborne radiometric target extends for a further 4km.

Additional geochemical soil sampling is required to cover the northern extent of the airborne radiometric target, and to prioritise drilling targets. The Company expects to complete the additional soil sampling in the second quarter of 2009 once the seasonal rains have abated, and to have drill targets identified by the third quarter.

#### 2. Sese Uranium Project, Botswana

#### African Energy Resources Limited 100%

The Foley uranium target in the Sese Project covers an area of approximately 7km x 7km and is 10km north of A-Cap Resources' Mokobaesi uranium deposit (280Mt @ 158 ppm  $U_3O_8$  for 98 Million Ib  $U_3O_8$  using a 100 ppm  $U_3O_8$  cut-off grade). Drilling of the Foley target in late 2007 by African Energy indicated the presence of potentially economic intersections, with the best hole returning 9m @ 370 ppm  $U_3O_8$  from 40m depth which included 3m @ 821 ppm  $U_3O_8$  from 41m.

Recent announcements by A-Cap Resources have indicated the presence of a large, low grade uranium resource at Mokobaesi (see above) which extends to the tenement boundary with African Energy approximately 5km south of the Foley uranium target. The uranium is hosted by sediments of the Karoo Supergroup in the same manner as at Foley, and locally in overlying calcretes. African Energy intends to conduct further exploration drilling on airborne radiometric anomalies between the Foley target and the tenement boundary once a decision to recommence exploration has been made.

Approval of the tenement reduction and renewal was received during the fourth quarter. All areas with significant surface anomalies have been retained.

#### 3. Majete and Rumphi Uranium Projects, Malawi

#### African Energy Resources Limited 100%

The Rumphi uranium project in northern Malawi covers a small sub-basin containing Karoo sandstones, and has been evaluated through airborne radiometric surveying undertaken by African Energy in late 2007, and follow-up geochemical soil sampling. The best uranium target identified to date is target area of approximately  $2km \times 1km$  where  $U_3O_8$  concentrations in soil were recorded up to 40 ppm confirming the presence of uranium mineralisation, with clear correlation between soil geochemical and airborne spectrometry results. Exposure is poor in the area, although a number of rock-chip samples were assayed from earlier reconnaissance, the highest returning 193 ppm  $U_3O_8$ .

The Majete uranium project in Southern Malawi contains a known basement-hosted uranium occurrence adjacent to younger Karoo sediments in a rift basin. Airborne magnetic data acquired with the radiometric data in late 2007 indicate the presence of sub-surface trends parallel to the primary NW-SE structural trend of the Mwanza Fault, where uranium mineralisation has been observed in associated quartz-felspathic pegmatites. A 4km x 1.5km sandstone-hosted target selected for investigation returned low  $U_3O_8$  concentrations, generally <10 ppm  $U_3O_8$ , with only a small number in the 10 to 20 ppm range.

Analysis of both projects during the quarter has determined that whilst they offer attractive exploration targets, in the current economic climate and with the Company's decision to suspend exploration activities these projects do not form part of the Company's core focus. A decision has therefore been made to divest these projects through a farm-in joint venture. A number of interested parties have signed Confidentiality Agreements and are currently evaluating the project data.

#### 4. Joint Venture Uranium Projects in Zambia with Albidon Limited

#### 4.1 Chirundu Joint Venture Uranium Project

African Energy Resources Limited 70%, Albidon Limited 30%, contributing joint venture.

#### 4.1.1 Bankable Feasibility Study

The Chirundu Bankable Feasibility Study (BFS) continued in the December quarter. The main activities undertaken were as follows:

- Receipt of assay data for resource infill drilling programmes (see below);
- Geological logging of all diamond drill holes for the resource infill drilling programme was completed;
- Specific gravity measurements were made on diamond drill core comprising mineralised lithologies. This data is required for the resource update which is currently being finalised;
- Submission of 1800kg of mineralised core samples from Njame and Gwabe to Mintek Laboratories in Johannesburg for the metallurgy test-work programme;
- Commencement of the metallurgical test-work programme, with a series of rolling bottle tests undertaken to ascertain base case parameters to be used in subsequent column leach test programmes and to evaluate spatial variability within and between the deposits in terms of response to processing treatments;
  - The variability test-work has concluded that there is no material variability within the Njame deposit in terms of its chemical response to the rolling-bottle tests;
  - The variability test-work has concluded that there is minor variability within the Gwabe deposit where finer grained sediments (comprising only 10% of the ore) consume more acid than the coarser grained sediments (90% of the ore), although uranium recoveries are not affected:
- Design of the initial column leach test programme commenced. This programme will start in the first quarter of 2009.

In October 2008 a review of the BFS at Chirundu was conducted in light of the economic conditions imposed by the global financial crisis. The Board of Directors considered it prudent to defer aspects of the BFS that were not directly related to updating confidence in the mineral resources themselves, or the studies to determine how to optimise mineral processing of the uranium ores. All aspects of the BFS were thus deferred until further notice, with the exception of the update to the mineral resources (refer below), the metallurgical test-work programme and associated process flowsheet design, a trade-off study to review mining options and the first phase of the geotechnical studies.

This decision will be reviewed on an ongoing basis, with a view to recommencing the full BFS programme immediately that the Directors consider that the uranium price outlook, equity markets and the Company's cash balance warrant such a decision. The deferred aspects of the BFS (mining study, engineering design, leach pad design, hydrogeology and second phase of the geotechnical study) will take approximately six months to complete once they have recommenced.

#### 4.1.2 Project Licences and Approvals

A draft Environmental Impact Statement (EIS) was submitted on behalf of the Joint Venture to the Environmental Council of Zambia (ECZ) and the Mines Safety Department (MSD) in June 2008. Feedback from these Government Departments has been received and will be used to submit a revised EIS for final assessment in 2009.

An application for a Mining Licence covering 248km<sup>2</sup> covering both the Njame and Gwabe operational sites has been submitted by Albidon Exploration Limited on behalf of the Joint Venture and is currently being reviewed by the Zambian authorities.

#### 4.1.3 Njame Uranium Deposit

Infill drilling programmes at Njame and Gwabe were completed in October 2008 to provide detailed infill assay results to allow definition of Measured and Indicated resources at Njame and Indicated resources at Gwabe, and to provide large diameter diamond drill core for geotechnical logging and the provision of sample for metallurgical test-work. Assays have now been received for all samples, and resource estimation calculations are currently in progress. An updated resource statement to include Measured and Indicated resources is expected to be available after an independent expert review in the first quarter of 2009.

All assays for the infill drilling at Njame deposit have now been received, and continue to demonstrate ore grades and thicknesses of mineralisation. Better assays received during the quarter from RC percussion drilling include:

Hole ID	From (m)	To (m)	Interval (m)	Assay, U₃O <sub>8</sub> ppm
NJN372	29	40	11	349
NJN389	22	30	8	506
NJN398	29	33	4	353
NJN399	29	34	5	338
NJN403	33	41	8	347
NJN404	24	40	16	451
NJN405	30	40	10	413
NJN415	18	39	21	214
NJN421	38	51	13	112
NJN426	34	41	7	245
NJN431	30	36	6	221
NJN444	40	48	8	255
NJN454	27	31	4	656
NJN455	39	48	9	364
NJN458	23	29	6	664
NJN462	26	42	16	885

Note: - full details of these assay results were provided in releases to the Australian Securities Exchange in October 2008.

#### 4.1.4 Gwabe Uranium Deposit

Assay results from the infill RC percussion drilling and PQ diameter core drilling were provided by ALS Chemex during the quarter. These assays have indicated that Gwabe contains a core zone of uranium mineralisation through the length of the orebody which averages 8m in true-thickness and which has an average depth of 16m below the surface to the top of mineralisation. This confirms that Gwabe may be amenable to open pit mining with a low stripping ratio as indicated by the results of the Prefeasibility study.

Recently received assay results which support the presence of this core zone include:

Hole	Hole type	From (m)	To (m)	Interval (m)	U₃O <sub>8</sub> ppm
GWN276	Diamond	15.05	26.00	10.95	684
GWN306	Diamond	7.00	20.70	13.70	506
GWN280	Diamond	21.15	32.00	10.85	502
GWN278	Diamond	17.90	35.00	17.10	314
GWN307	Diamond	12.05	18.20	6.15	772
GWN305	Diamond	10.00	15.00	5.00	899
GWN282	Diamond	14.00	29.00	15.00	298
GWN266	Diamond	14.00	26.00	12.00	304
GWN274	Diamond	11.00	27.80	16.80	206
GWN268	Diamond	20.60	29.00	8.40	396
GWN298	Diamond	22.00	27.00	5.00	486
GWN260	Diamond	15.00	26.00	11.00	200
GWN293	RC Percussion	15	25	10	907
GWN235	RC Percussion	16	28	12	669
GWN301	RC Percussion	14	26	12	621
GWN244	RC Percussion	22	30	8	625
GWN253	RC Percussion	7	23	16	294
GWN297	RC Percussion	20	34	14	313
GWN243	RC Percussion	21	28	7	599
GWN229	RC Percussion	11	24	13	190
GWN255	RC Percussion	13	21	8	289
GWN228	RC Percussion	14	21	7	330
GWN299	RC Percussion	16	25	9	256
GWN257	RC Percussion	7	15	8	273

Note: - full details of these assay results were provided in releases to the Australian Securities Exchange in December 2008 and January 2009.

#### 4.1.5 Exploration Programmes in the Chirundu JV

No exploration was undertaken during the quarter.

#### 4.2 Kariba Valley Joint Venture Uranium Project

Albidon Limited 100%, currently sole funded and operated by African Energy Resources Limited under a Joint Venture Agreement with African Energy earning up to 70% interest.

#### 4.2.1 General

African Energy is sole funding, managing and operating this project and will earn an initial 30% equity interest through cumulative expenditure of AUD \$1.0 million. African Energy expects to meet this initial expenditure commitment (and thereby earn its initial 30% interest) once the next programme of drilling is completed on the project.

#### 4.2.2 Chisebuka Uranium Prospect

Previous rock-chip sampling undertaken at Chisebuka by African Energy (reported to the ASX on  $17^{th}$  August 2007) confirmed the presence of high-grade uranium mineralisation at surface with a peak value of 4,823ppm  $U_3O_8$ . A programme of RC drilling in late 2007 evaluated these ground radiometric anomalies and discovered significant mineralisation, with the best intersection being 7m @ 465 ppm  $U_3O_8$ . Additional drilling is required at Chisebuka, both to infill the current widely spaced drilling, and also along strike where additional uranium radiometric anomalies have been identified.

#### 4.2.3 Namakande Uranium Prospect

The Namakande uranium prospect comprises a cluster of six ground radiometric anomalies (Namakande targets A through F) which were defined over Escarpment Grit Formation sediments by the Italian petroleum company AGIP in the late 1970's. African Energy evaluated these six targets through a programme of geological reconnaissance mapping, ground radiometric (gamma-ray scintillometer) surveys, geochemical soil sampling and rock-chip sampling completed in late 2007. Coherent uranium anomalism in soil and rock-chips has been detected at the Namakande A, Namakande E and Namakande F targets, with additional anomalism worthy of follow-up identified at the Namakande B and C targets. Drilling to test these anomalies is required.

#### 4.3 Luano Valley Joint Venture Uranium Project

Albidon Limited 100%, currently funded and operated by African Energy Resources Limited under a Joint Venture Agreement with African Energy earning up to 70% interest.

This JV project area has been evaluated through airborne radiometric surveying in late 2006 with a further survey in November 2007. An assessment of the data from both radiometric surveys has been completed and targets for field evaluation have been identified. Field validation has been completed on the primary target. Basement rocks consisting of quartz-felspathic gneisses were observed as expected and a total of 17 rock-chip samples were collected for assay. Assay results were received in the fourth quarter and were generally disappointing. The Company is reviewing it's commitment to this project and will make a decision in the first quarter of 2009 whether to remain in this joint venture.

Frazer Tabeart

Managing Director

Full details for all projects including location maps, tenement schedules and technical descriptions may be found on the African Energy website at <a href="https://www.africanenergyresources.com">www.africanenergyresources.com</a>

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this announcement has been presented in accordance with the JORC Code and references to "Measured", "Indicated" and "Inferred Resources" are to those terms as defined in the JORC Code.

Information in this report relating to exploration results is based on data compiled by Dr Frazer Tabeart (a full time employee and Managing Director of African Energy), who is a member of The Australian Institute of Geoscientists. Dr Tabeart 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 under the 2004 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Tabeart consents to the inclusion of the data in the form and context in which it appears.

For any queries please contact the Company Secretary, Mr Brett Mitchell on +61 8 6465 5500

# **Appendix 5B**

## Mining exploration entity quarterly report

Name of entity

#### AFRICAN ENERGY RESOURCES LIMITED

ARBN

Quarter ended ("current quarter")

123 316 781

31 DECEMBER 2008

## Consolidated statement of cash flows

	consolidated statement of cash hows					
Cash fl	ows related to operating activities	Current quarter \$A'000	Year to date \$A'000			
1.1	Receipts from product sales and related debtors	-	-			
1.2	Payments for: (a) exploration and evaluation	(42)	(121)			
	(b) development (c) production	(1,188)	(2,755)			
	(d) administration	(730)	(1,159)			
1.3	Dividends received	-	-			
1.4	Interest and other items of a similar nature received	16	91			
1.5	Interest and other costs of finance paid	-	-			
1.6	Income taxes paid	-	-			
1.7	Other	-	-			
	Net Operating Cash Flows	(1,944)	(3,944)			
	Cash flows related to investing activities					
1.8	Payment for purchases of:					
	(a) prospects	-	-			
	(b) equity investments	-	-			
4.0	(c) other fixed assets	(163)	(299)			
1.9	Proceeds from sale of: (a) prospects	-	-			
	(b) equity investments	-	-			
	(c) other fixed assets	-	-			
1.10	Loans to other entities	-	-			
1.11	Loans repaid by other entities	22	192			
1.12	Cash acquired in subsidiary	-	-			
	Net investing cash flows	(141)	(107)			
1.13	Total operating and investing cash flows (carried forward)	(2,085)	(4,051)			

1.13	Total operating and investing cash flows (carried forward)	(2,085)	(4,051)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	43	43
1.15	Costs of the issue	(2)	(9)
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	(5)	(5)
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
	Net financing cash flows	36	29
	Net increase (decrease) in cash held	(2,049)	(4,022)
1.20	Cash at beginning of quarter/year to date	4,822	7,040
1.21	Exchange rate adjustments to item 1.20	52	(193)
1.22	Cash at end of quarter	2,825	2,825

Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities.

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	413
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Payments to directors for executive services during the period totalled \$234,636.

Payments to related entities for reimbursements of GIS management, administrative staff and provision of a fully serviced office totalled \$178,491.

### Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Nil

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Nil

## Financing facilities available

Add notes as necessary for an understanding of the position.

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	-	-

## Estimated cash outflows for next quarter

	Total	657 <b>717</b>
4.2	Development	657
4.1	Exploration and evaluation	60
		\$A'000

## Reconciliation of cash

consc	nciliation of cash at the end of the quarter (as shown in the blidated statement of cash flows) to the related items in the ints is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	2,741	4,738
5.2	Deposits at call	84	84
5.3	Bank overdraft	-	-
Total: cash at end of quarter (item 1.22)		2,825	4,822

## Changes in interests in mining tenements

		Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed	-	•		-
6.2	Interests in mining tenements acquired or increased	-	-	-	-

## Issued and quoted securities at end of current quarter

 $Description\ includes\ rate\ of\ interest\ and\ any\ redemption\ or\ conversion\ rights\ together\ with\ prices\ and\ dates.$ 

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Performance *securities Convert to ordinary securities on development of a commercial mining project				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy- backs.				
7.3	<sup>+</sup> Ordinary securities	174,509,152	68,121,651		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy- backs	39,048	39,048	30c	30c
7.5	*Convertible debt securities (description)				
7.6	Changes during quarter (a) Increases (b) Decreases				
7.7	<b>Options</b> (description and conversion factor)	13,825,000 Convert on a 1:1 basis	-	Exercise price 31.25c (12.22m) 40c (1.6m)	Expiry Date 30 June 2012 30 June 2012
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter	430,000	-	40c	-
7.11	Debentures (totals only)				
7.12	Unsecured notes (totals only)				

#### Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.

#### **Brett Mitchell**

**Company Secretary** 

Date: 29 January 2009

Print name:

#### Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, AASB 1022: Accounting for Extractive Industries and AASB 1026: Statement of Cash Flows apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.