



ASX ANNOUNCEMENT

31st January 2012

31 DECEMBER 2011 QUARTERLY REPORT

Exploration Highlights:

- **Reverse Circulation drilling underway** at the Golden Hill Project in western Burkina Faso. Ten holes (708m) of the 70 hole, 5,000m RC drilling program have been completed. All results pending.
- Significant gold values of **2.72g/t Au** and **3.82g/t Au** returned from a 300m long line of artisanal workings at the Nabale East Prospect (Golden Hill Project). Visible gold observed in smoky quartz vein mullock.
- **Aeromagnetic / radiometric survey covering the Gourma Project in Burkina Faso completed** by Aeroquest Airborne. Geological re-interpretation of the project utilising the data has commenced.
- **20% of the Gourma Project regional soil sampling program completed.** All results pending.
- **50% of the Gourma Project regional auger drilling program completed.** All results pending.
- Tasmanian oil shale permit renewed and joint venture negotiations with the Fushun Mining Group recommenced.

Corporate Highlights:

- \$2.5 million (before costs) raised to fast-track exploration programs in Burkina Faso.
- Mr Roger Speers appointed as Exploration Manager effective 10th November 2011.
- Mr Joseph Obeid resigned as a director of the Company effective 4th October 2011.
- Cash on hand at the end of the quarter was \$2.4 million.

ASX Code: BOE

Fast Facts:

Shares on Issue	287,741,529
Options on Issue:	
Expiring 31/07/12	55,000,000
Expiring 19/10/13	19,991,667
Market Capitalisation	\$25.9m
Cash @ 31 Dec	\$2.4m
Debt	Nil

Directors:

Mr Robert Grover
Mr Thomas Gladwin-Grove
Mr Leigh Ryan

Projects:

Boss Gold Sarl

- Prospective gold projects in Burkina Faso

Latrobe Oil Share Project

- Prospective oil shale project in Tasmania

Greenvale Mining NL

- Boss Resources holds over 3.9 million shares in Greenvale Mining NL giving the Company a 10% interest in large oil shale projects in Queensland

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EXPLORATION

Golden Hill Project

Infill and extension Reverse Circulation (RC) drilling commenced within the Intiedougou permit during the quarter. The program aims to expand the currently defined gold mineralisation within two (6km x 1km and 4km x 1km) +30ppb gold in soil anomalies within the Intiédougou permit where historical drill intercepts include (ASX: 29 August 2011):

- 54m @ 9.6g/t gold from 4m
- 12m @ 28.8g/t gold from 22m
- 22m @ 12.4g/t gold from 22m
- 24m @ 8.0g/t gold from surface
- 41.5m @ 4.0g/t gold from 113.4m
- 14m @ 8.4g/t gold from 24m
- 28m @ 3.8g/t gold from 4m
- 28m @ 3.4g/t gold from surface
- 12m @ 6.9g/t gold from 38m
- 34m @ 2.6g/t gold from surface

At quarter's end, 10 holes for 708m were completed by African Mining Services (a subsidiary of Ausdrill) at the "A Zone" prospect. Drilling intersected a sequence of altered basalt to andesitic volcanics, intruded by numerous feldspar-quartz porphyry units and pyritic hematite altered syenite ranging from 10m to 40m thick consistent with descriptions of mineralised intercepts from previous drilling.

A further 60 holes for 4,300m within 5 prospect areas (A Zone, B Zone, C Zone, Peksou, Pekperine South and Ma East/Sebedougou) are planned to be completed early in the next quarter. Samples have been submitted to the ALS Laboratory in Ouagadougou. All results are pending.

During the quarter 15 rock chip samples were collected within the Golden Hill Project during regional reconnaissance mapping. Two samples of smoky quartz vein mullock returned significant gold values of 2.72g/t Au and 3.82g/t Au from a 300m long, NE striking line of artisanal workings at the Nabale East Prospect. Visible gold was observed in two pieces of smoky quartz vein mullock (retained as specimens - not sampled). Auger / RAB drilling is planned for this area.

Gourma Project

A detailed aeromagnetic / radiometric survey across the entire Gourma Project was completed by Aeroquest Airborne during the quarter. The 13,260 line kilometre, 1,200km² survey was flown at a flight height of approximately 30 meters on lines 100m apart. The final data has been received and a structural and lithological re-interpretation of the project area has commenced. The data has significantly enhanced the Company's ability to define and trace prospective mineralised structures (Fig. 1).

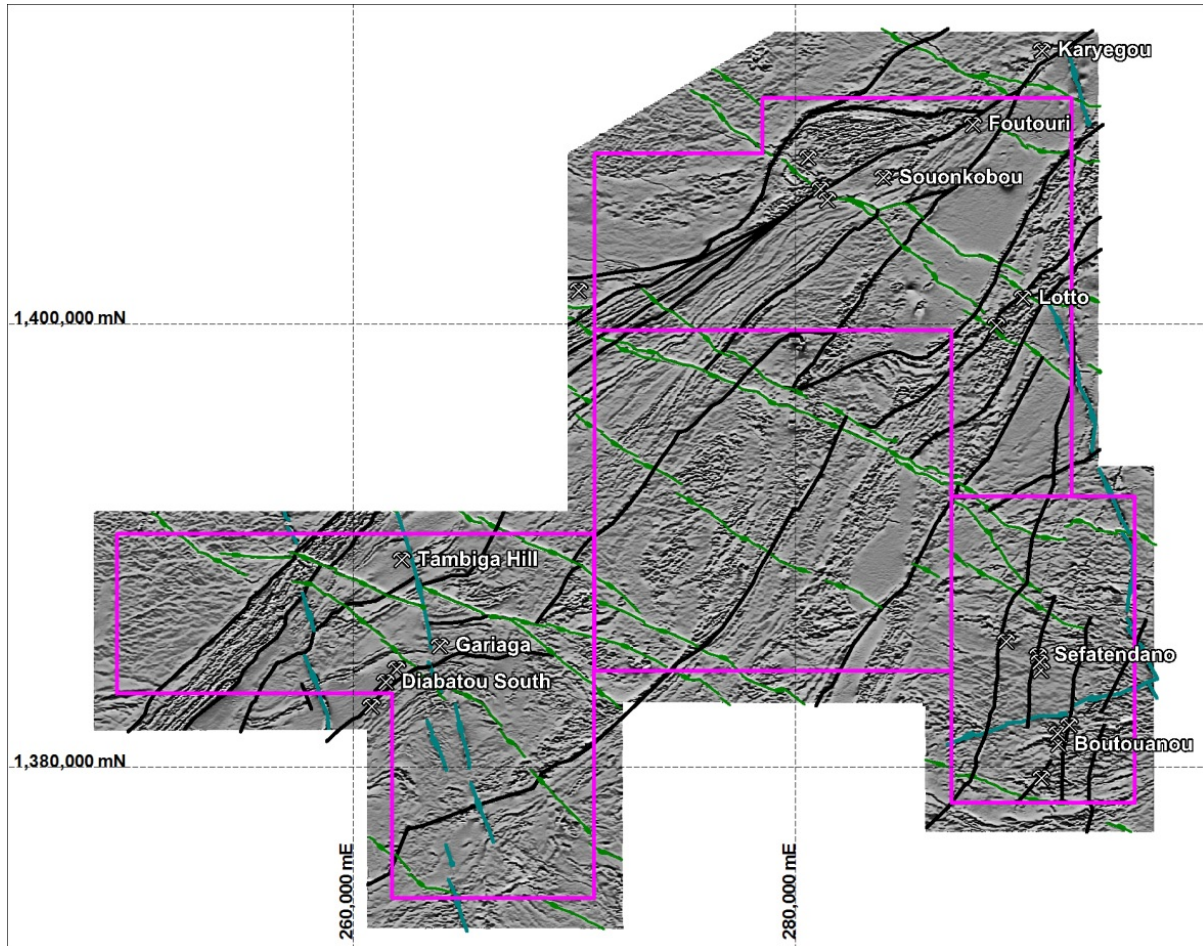


Figure 1: Gourma Project tenements and structural interpretation over 2VD aeromagnetic image

Wide spaced (400m x 400m) soil sampling commenced over the Gourma project during the quarter with a total of 570 samples (20% of the first pass program) collected to date out of a planned 2,780. All samples have been submitted for gold and multi-element analysis. Sampling is continuing.

Auger drilling also commenced within the Gourma Project during the quarter in order to obtain base of alluvium (interface) and bedrock geochemical samples beneath the relatively limited areas of alluvial cover. Sahara Geoservices have been contracted to complete the 1,800 hole program at a 200m x 800m hole spacing. At quarter's end, 974 holes for 6,630m (50% of the program) had been completed. All samples have been submitted for gold and multi-element analysis. Bedrock geological descriptions are being used to aid the lithological re-interpretation of the project area.

A total of 47 rock chip samples were collected within the Gourma Project during the regional reconnaissance mapping and soil sampling. One sample returned a gold value of 11.6g/t Au from an ore stockpile at the Tambiga Hill Prospect, confirming the high grade gold potential of the extensive artisanal workings in this prospect area.



Tenkodogo Project

Reconnaissance mapping and rock chip sampling was completed across the Bassare and Kassougou exploration permits during the quarter. Lithologies encountered during the reconnaissance work included strongly magnetic fine to medium grained granite and coarse grained granodiorite units. A strike extensive NNE-trending shear zone up to several hundred metres wide was encountered in the southern part of the Bassare permit. Three rock chip samples were collected but all returned <0.01g/t Au. Additional reconnaissance mapping is required.

CORPORATE:

During the quarter the Company issued 41,800,001 fully paid ordinary shares at an issue price of \$0.06 per share ("Shares"), together with 41,800,001 free attaching options ("Options"), to various sophisticated investors and clients of Indian Ocean Capital. The funds raised (A\$2,508,000) are being utilised in furthering Boss' exploration programs in Burkina Faso and for working capital purposes. The Options will be unlisted, exercisable at 12 cents per share and will expire 2 years after date of issue.

Mr Roger Speers appointed as Exploration Manager effective 10th November 2011. Mr Speers is a highly qualified Geologist with 15 years gold exploration experience including 10 years in North and East Africa. He has been involved in the discovery and development of numerous large gold deposits including the 8Moz Sunrise Dam Gold Mine in Western Australia (Acacia Resources), the 18Moz Geita Gold Mine in Tanzania (AngloGold-Ashanti), and the 14Moz Sukari Gold Mine in Egypt (Centamin Egypt).

Mr Joseph Obeid resigned as a director of the Company effective 4th October 2011.

Cash on hand at the end of the quarter was \$2.4 million.

For further information please contact:

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Boss Resources Limited is a gold and oil shale exploration company focussed on increasing shareholder and other stakeholder wealth by exploring for and developing quality mineral resources. Evaluation and acquisition of additional highly prospective exploration projects in West Africa, especially in Burkina Faso, and the development of an oil shale processing facility in Tasmania is seen as critical to the growth of the company.

The information in this report that relates to exploration results is based on information compiled by Mr Leigh Ryan, the company's Managing Director, who is a member of the Australian Institute of Geoscientists. Mr Ryan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity 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 Ryan consents to the inclusion in the report of the matters based on information in the form and context in which it appears.