



31 DECEMBER 2012 QUARTERLY REPORT

EXPLORATION HIGHLIGHTS

Gourma Project – Burkina Faso (BOE 100%)

- ❖ Gourma Project phase 1 aircore drilling completed, with 422 holes drilled for 15,038m across the Diabatou, Gariaga, Bohongou and Foutouri gold in soil anomalies
- ❖ Numerous significant intercepts returned from maiden aircore drilling program at the Diabatou Prospect including:
 - 29m @ 1.1g/t Au from 38m (DIAC030) including 14m @ 2.1g/t Au from 38m
 - 25m @ 1.1g/t Au from 15m (DIAC054) including 9m @ 2.3g/t Au from 31m
 - 12m @ 2.8g/t Au from 54m (DIAC013)
 - 12m @ 1.4g/t Au from 14m (DIAC014)
 - 12m @ 1.0g/t Au from 14m (DIAC017)
 - 7m @ 1.4g/t Au from 66m (DIAC025)
- ❖ Gold mineralisation intercepted on all five 200m spaced drill lines at Diabatou with multiple mineralised zones remaining open at depth and along strike to the NE and SW including
 - 14m @ 2.1g/t Au from 1m
 - 3m @ 11.3g/t Au from 5m
 - 7m @ 2.0g/t Au from 19m
- ❖ Continuous gold mineralisation possible over a 3.8km strike length between Diabatou and Gariaga prospects
- ❖ Assay results for the Gariaga, Bohongou and Foutouri prospects are pending

Golden Hill Project – Burkina Faso (BOE 100%)

- ❖ Regional wide spaced soil sampling completed with all results pending

Latrobe Project – Tasmania (BOE 100%)

- ❖ A Memorandum of Understanding has been sent to the Fushun Mining Group and a response is pending

ASX Code: BOE

Fast Facts:

Shares on Issue at	
31 January 2013	390,373,182
Unlisted Options (various	
ex. prices / expiry dates):	76,400,001
Market Cap. (\$0.05)	\$21.5m
Cash @ 31 December 2012	\$3m
Debt	Nil

Directors:

Mr Leigh Ryan
Mr Evan Cranston
Mr Thomas Gladwin-Grove

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 1.75 million shares in Greenvale Mining NL giving the Company a 3% interest in large oil shale projects in Queensland

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EXPLORATION

Exploration in Burkina Faso during the quarter included the preparation and completion of aircore (AC) drilling on the Gourma Project and completion of regional soil sampling across the Golden Hill Project. A number of soil sampling and aircore assay results are still awaited while geological interpretations based on the AC drill chip logging is continuing. No work was completed on the Tenkodogo Project.

Gourma Project

During the quarter a 15,038m aircore drilling program was completed within the Fada N'Gourma Greenstone Belt in eastern Burkina Faso. The program was designed to test for primary gold mineralisation beneath three strike extensive multi-element supported gold in soil anomalies within the Diabatou and Foutouri permits (Fig.1).

The program included 422 holes (15,038m) drilled across the Diabatou, Gariaga, Bohongou and Foutouri multi-element supported >15ppb gold in soil anomalies. Results for 70 of the 422 holes (17%) have been received.

Aircore drilling at the Diabatou prospect was conducted on 5 lines spaced 200m apart with holes drilled to blade refusal with total coverage achieved on each traverse where possible (Fig 2). Mineralisation is associated with quartz vein stockworks within a strongly altered, deeply weathered variably sheared quartz diorite unit within a sequence of andesitic basalts. Results indicate several zones of gold mineralisation and shearing sub-parallel to the regional structural and lithological trend (NE-SW) over a strike length of more than 800m. Better intercepts are associated with zones of deeper weathering which includes saprolitic clays beyond 87m down hole depth (all drill rods available on drill rig). The next phase of drilling at the prospect will focus on extending the lines to the SE into the area of deeper weathering and following the gold mineralisation along strike to the NE.

Assays for the Gariaga, Bohongou and Foutouri prospects are pending.

Results from the 70 aircore holes drilled at the Diabatou Prospect include the following significant >3 gram x metre intercepts:

Table 1: Diabatou Prospect Aircore Drilling (4m composites or part thereof) – All >3gxm results

Hole ID	Coordinates *		Dip (°)	Az * (°)	Hole Depth (m)	Intercept (m)			Grade (g/t Au)
	East (m)	North (m)				From	To	Width	
DIAC001	262485	1384498	315	-55	87	76	80	4	1.60
DIAC013	262370	1384309	315	-55	87	54	66	12	2.75
DIAC014	262338	1384342	315	-55	87	26	36	10	0.32
DIAC017	262233	1384449	315	-55	87	19	31	12	0.95
DIAC021	262099	1384591	315	-55	87	14	26	12	1.44
DIAC025	262201	1384202	315	-55	78	66	73	7	1.35
DIAC028	262094	1384305	315	-55	87	68	76	8	0.43
DIAC030	262026	1384377	315	-55	71	38	67	29	**1.10
					<i>incl.</i>	38	52	14	**2.14
DIAC050	261845	1384286	315	-55	59	31	35	4	0.77
DIAC054	261763	1384362	315	-55	40	15	40EOH	25	1.08
					<i>incl.</i>	31	40	9	2.34
DIAC058	261635	1384487	315	-55	78	48	52	4	0.93

* WGS84 Zone 31N, 0.1g/t lower cut, max 4m internal waste, no upper cut, only >3.0 gram x metre intercepts reported

** no sample recovery 42-44m

All four metre composite samples are collected using a PVC spear system and although all care is taken to collect a representative sample, the results are indicative only. Irrespectively Boss implements a rigorous quality control program with



aircore drilling involving the insertion of one certified standard from an accredited New Zealand laboratory, a blank sample, and a duplicate sample within every 60 samples submitted for analysis. The ALS laboratory in Ouagadougou, Burkina Faso was used for gold analysis on all the AC samples. Samples were assayed using standard fire assay techniques on a 50 gram charge with an atomic absorption finish.

Results for 362 (100m x 100m spaced) infill soil samples collected along interpreted structures at the Boutouanou prospect during the September quarter, including an additional 128 samples collected during the December quarter included 16 gold values >40ppb to a maximum of 476ppb Au. Sampling to date has identified a coherent but low level gold in soil anomaly over a 2km x 1km area directly associated with active artisanal workings. Ground checks are planned.

During the quarter an additional 272 infill soil samples were collected from the Bongori prospect. Gold assays included 39 gold values >40ppb to a maximum of 418ppb Au. Results to date have defined 2 sub-parallel coherent >20ppb soil anomalies each with >2 kilometre strike and both open to the SW and NE. Additional follow up 100m x 100m spaced soil sampling is underway.

Only one rock chip sample was collected during the course of exploration over the Gourma Project this quarter. The sample was smoky vein quartz from the Bohongou North prospect on the GSZ but returned only 0.02g/t Au.

Infill soil sampling and mapping of the Bongori, Foutouri and Lotto / Tampora prospects has commenced.

Golden Hill Project

Regional Multi-Element Soil Sampling

During the quarter 463 wide spaced (1km x 1km) regional soil samples were collected across the entire Golden Hill Project. The program was designed to confirm historic gold in soil anomalism and compliment the database with 51 element sample analysis across the entire project. Gold and multi-element assays from the majority of the Intiedougou permit have now been received (228 samples). Results include 16 gold values >50ppb to a maximum of 396ppb Au. Even at this wide sample spacing, two distinct open ended geochemical anomalies have been identified coincident with the historic Intiedougou and Ma gold anomalies. The Intiedougou anomaly contains anomalous Au-Pb-Te over more than 3km of strike and the Ma anomaly displays anomalous Au-As-Cu-Sb-Hg-Zn over a 4km strike. A third distinctive >3km long Au-Pb-Mo-Sb-Te anomaly has also been identified at the margin of the Tarkwaian sediment package in the central west of the permit. A detailed interpretation of all the gold and multi-element data will be conducted when the results from the Baniri and Mougou permits have been received.

Latrobe Oil Shale Project - Tasmania

A response from the Fushun Mining Group with respect to a Memorandum of Understanding sent to them late in September is awaited.

CORPORATE

On 19 October 2012 Boss Resources Limited received the final tranche of \$600,000 as part of its capital raising announced on 17 May 2012. As a result 10,000,003 fully paid ordinary shares in the capital of the Company were issued.

The annual general meeting of shareholders was held on 30 November 2012 at the offices of the Company. The remuneration report was adopted following a poll of the meeting. Mr Thomas Gladwin-Grove was re-elected as a Director on a show of hands and the resolution for an additional 10% placement capacity also passed on a show of hands.



On 30 November 2012, Mr Robert Grover retired as Chairman. The Board of Boss wishes to convey its gratitude and best wishes to Mr Grover, along with acknowledging the significant contribution he has made towards shaping Boss into the exploration company that is today. Oonagh Malone was appointed Joint Company Secretary.

Cash on hand at quarters end was \$3 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.

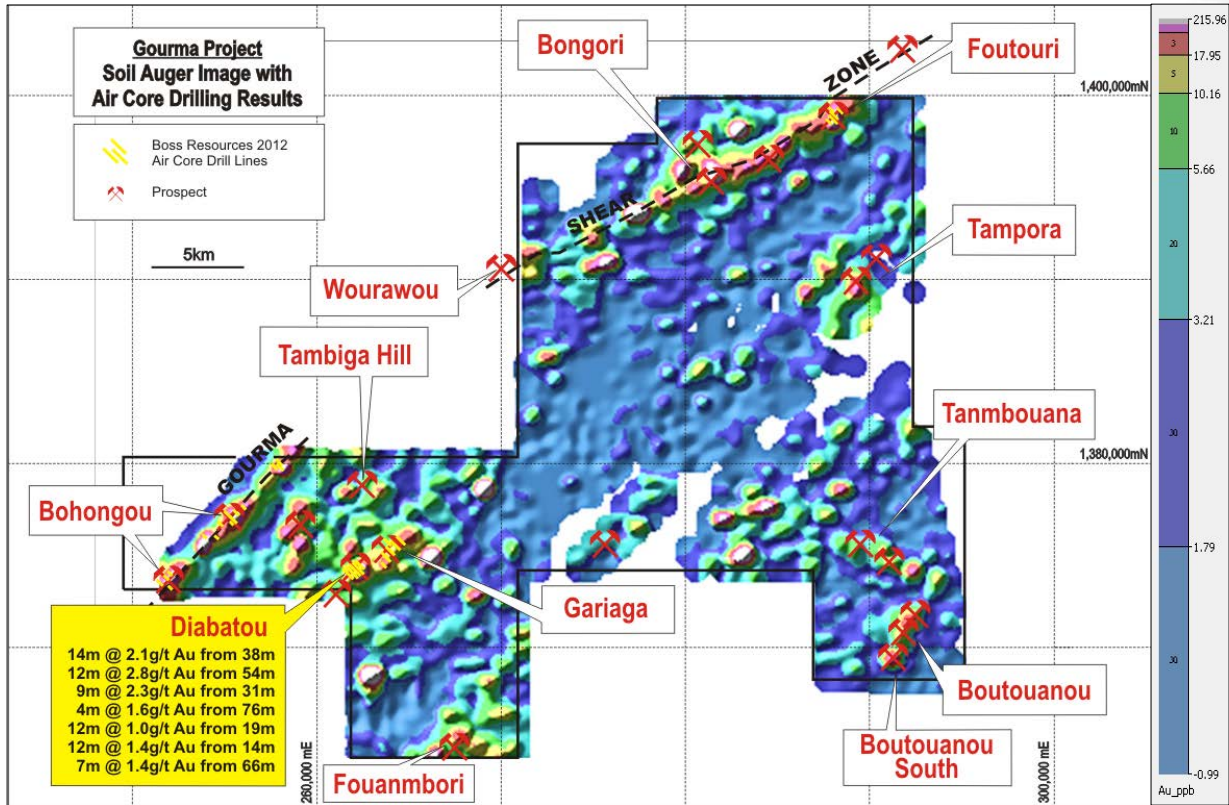


Figure 1: Gourma Project Aircore drilling and recent intercepts over combined gold in soil and gold in auger image

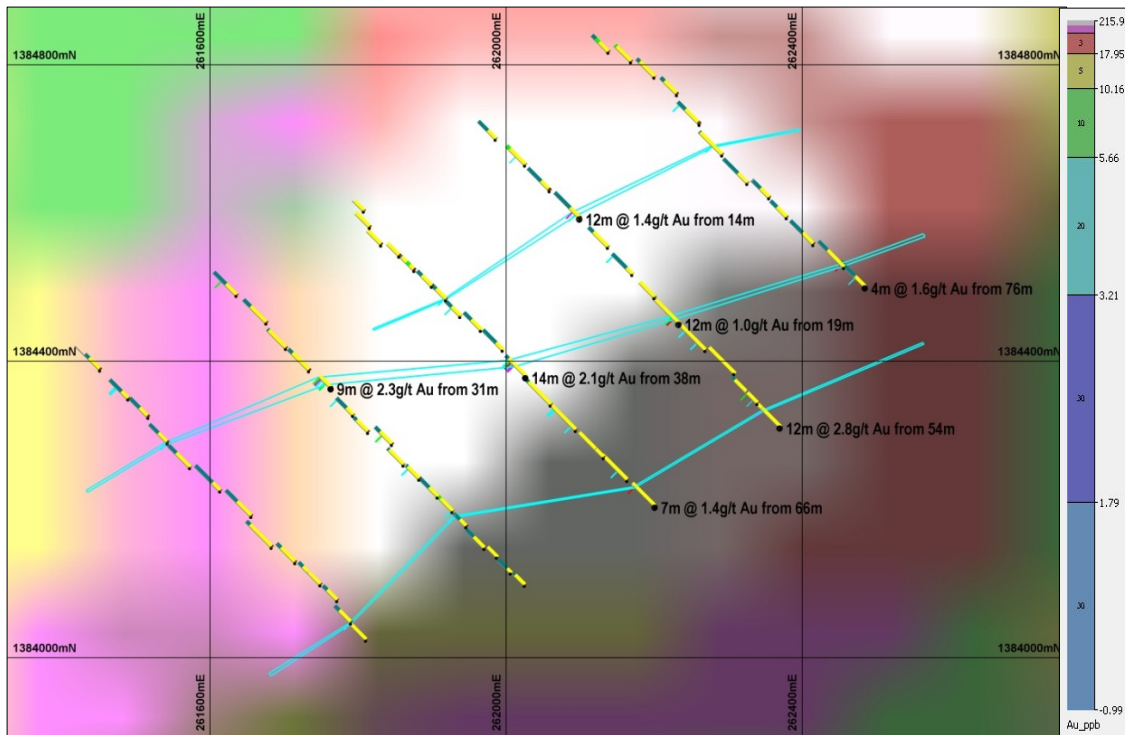


Figure 2: Diabatou Prospect Aircore drill hole locations and intercepts over gold in soil image