FAST FACTS

Capital Structure
Shares on issue 300 million
Market Cap ~A$480 million
Cash in bank ~A$50.4 million
(June 11 quarterly)

CORPORATE DIRECTORY

Mel Ashton
Non-Executive Chairman
Stephen Parsons
Managing Director
Didier Murcia
Non-Executive Director
Steven Zaninovich
Non-Executive Director
David Netherway
Non-Executive Director

Matthew Bowles
Chief Development Officer
Tim Holt
Chief Financial Officer
Brett Dunnachie
Company Secretary
Michael Fox
Exploration Manager Africa

COMPANY HIGHLIGHTS

- **New +Million oz gold discovery**
- **Emerging new gold district**
- **Aggressive exploration**
- **Big hitting shareholders**
- **Proven Management team**

Banfora Gold Project, West Africa

- **29Mt @ 2.1g/t for 2,000,000oz gold**
- **Less than 100 metres depth & open**
- **Over 120km of highly prospective regional shear zones**
- **20 high priority targets for testing**

Mauritanian Projects West Africa

- Tijirit Gold Projects (1,400km^2)
- Adjacent to Kinross' Tasiast gold mine

Strategic Holdings

Renaissance Minerals (ASX:RNS) (16%) Australian gold explorer

Tawana Resources NL (ASX: TAW) (12%) African focused explorer

CONTACT DETAILS

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+61 8 9287 4334
ASX CODE: GRY

ASX Announcement and Media Release
31 August 2011

Preliminary Independent Engineering Studies Highlight Gryphon Minerals on track to becoming a significant gold producer: Banfora Gold Project, Burkina Faso

Highlights

- **Studies completed by Lycopodium initially on a 2.5 million tonne per annum (mtpa) open pit mining operation utilising a conventional carbon in leach (CIL) processing plant**
- **Based on the 2.5mtpa operation, forecast production of +180,000oz per annum, at +2.6g/t gold & <US$430/oz cash costs[2] in the first two years using an US$1,100/oz gold price**
- **Detailed feasibility studies have now commenced on a potential +3.5mtpa, +200,000oz gold operation, in line with anticipated resource growth in 2011/12**
- **Outstanding metallurgical recoveries of 93% gold using a coarse grind (96% for oxide mineralisation and 91% for primary/sulphide mineralisation)**
- **Excellent infrastructure including access to surplus water, existing telecommunications facilities, roads, site locations for processing plant, dam and tailings and anticipated use of grid power**
- **Detailed feasibility studies expected in mid 2012 followed by permitting and construction anticipated in late 2012 with first gold poured in early 2014**
- **Clear path to becoming the first Australian gold producer in Burkina Faso with strong Government and local community support**
- **Aggressive A$30 million exploration budget underway at Banfora Gold Project, anticipating further resource growth in 2011/2012 as well as targeting new satellite discoveries**

Gryphon Managing Director, Steve Parsons said: *"We are extremely pleased with the excellent results received from this independent engineering study, it has ticked some of the big boxes and provides a clear path for Gryphon to move immediately into detailed feasibility studies on a +3.5 million tonne per annum operation and potential +200,000 ounce per annum gold production.*

"With the detailed feasibility studies expected to be completed by mid 2012, we will continue to maintain our aggressive A$30 million exploration program, with further resource growth anticipated during the 2011/12 financial year."

Notes:
Studies based only on the current inferred 29Mt @ 2.1g/t for 2Moz gold resource estimate (ASX release 31/03/2011)

[1] Project cash costs exclude royalties, taxes and financing

Banfora Gold Project Preliminary Independent Engineering Studies

Gryphon Minerals Limited **(ASX:GRY)** is pleased to announce the achievement of a major milestone in its goal to becoming a significant West African gold producer and the first Australian gold mining company in Burkina Faso, with the completion of a positive independent preliminary open pit engineering assessment of the Company's 100% owned Banfora Gold Project, Burkina Faso.

The Company is moving immediately into detailed feasibility studies on a +3.5 mtpa operation which are expected to be completed by mid 2012, as well as maintaining its ongoing aggressive $30 million exploration program, with further resource growth anticipated during the 2011/12 financial year.

Managing Director, Steve Parsons said: *"We are pleased with the excellent results received from this preliminary independent engineering study, paving the way to move immediately into detailed feasibility and for Gryphon to ultimately become a significant West African gold producer.*

"Importantly, the completion of these initial studies should be recognised as a 'point in time' in Gryphon's overall growth strategy, with significant further opportunity for expansion. Add to this the huge upside at Banfora, with anticipated resource growth at the current deposits, plus new and exciting regional targets such as Ouahiri and Stinger, and you can see that Banfora has the potential to grow beyond the current multi-million ounce resource to become a world-class gold mining district.

"These preliminary engineering studies have ticked some of the big boxes and provides a clear path for Gryphon to move into further detailed feasibility studies and ultimately gold production. Among the highlights from the studies are the outstanding metallurgical recoveries of 93% using a coarse grind, 65% conversion of resources to in-pit mineral inventory, cash costs well below industry peers and a head grade of more than two grams per tonne of gold.

"Gryphon is now moving forward on detailed studies for a +3.5mtpa operation as the Company anticipates further resource growth over the next 12 months beyond the current resource through its aggressive exploration programme supported by a A$30 million exploration budget," said Parsons.

Details of the study

The Preliminary Independent Engineering Studies focused on the proposed site, plant and operations, plus infrastructure and initial metallurgical test work.

The studies, by Lycopodium and other consultants were completed on the Nogbele, Fourkoura and Samavago gold deposits that form part of Banfora Gold Project.

The studies were based on:

- Current inferred resource estimate of 29Mt @ 2.1g/t for 2,000,000 ounces of gold; (refer to ASX release 31/03/11)
- 2.5mtpa operation and processing plant (with anticipated resource growth a +3.5mtpa process plant will be reviewed in the next study;
- All plant site locations, tailings, water supply have been studied with the anticipated future +3.5mtpa process plant;
- Simple crush and grind configuration with a conventional carbon in leach (CIL) and possible gravity circuit;
- International Cyanide Management Code (ICMC) compliant design basis;
- Gold recoveries of +93% using a coarse grind (106 microns);
- Conventional excavator and truck, open pit operations, on a contract mining basis; and
- US$1,100/oz gold price

Metallurgy

Independent metallurgical test work by ALS Ammtec "Ammtec" in Perth confirms outstanding metallurgical characteristics and gold recoveries at the Banfora Gold Project. The results indicate very high gold recoveries compared to many other West African gold deposits. Bulk samples were taken throughout the various portions of the deposits in oxide, transitional and sulphide/primary zones.

Metallurgical results from the studies are very encouraging and show:

- Gold extraction from a simple conventional carbon in leach (CIL) and possible gravity circuit;
- Coarse grind (106 microns);
- Gold recoveries average 93%
    - 96% for oxide mineralisation; and
    - 91% for primary/sulphide mineralisation.

In addition to this Ammtec and Gryphon are undertaking test work to determine if further upside can be gained from the following:

- Further gravity test work to maximise the gravity component (currently up to ~40%)
- High silver content (approx 10g/t Ag) at Nogbele deposit suggests potential for silver credits through the CIL circuit; and
- Lower grade oxide (<1g/t gold) outside of the current defined resource at Nogbele is undergoing columnar test work to evaluate potential for gold extraction by heap leaching. This has potential to add further ounces to future production outside of the current resource and planned CIL processing plant.

Optimisation details

The current studies suggest a significant component (65%) of the current inferred 29Mt @ 2.1g/t for 2,000,000 gold resource estimate is contained within the designed pit shells as in-pit mineral inventory. The results of the studies also indicate that a lower cut off grade of 0.5g/t gold for oxide and 0.6g/t gold for fresh rock should be applied to any potential future reserve estimate calculations.

Preliminary open pit optimisations were developed by the Company's highly experienced in-house engineering team.

Key aspects of the current studies based only on a 2.5mtpa gold mining operation include:

Production and mine life
Initial forecast production of +180,000 ounces of gold per annum in the first two years, based on a 65% conversion of the current inferred resource to in-pit mineral inventories over an initial eight year mine life.

Cash costs[1]
Average cash costs of <US$430/oz in the first two years of production and <US$610/oz over the current eight year mine life, which are well below the peer average of US$650+/oz for West African gold producers and approximately $750/oz average for Australian producers.

Grade
Average head grade of +2.6 g/t gold in the first two years and +2.0 g/t over the current eight year mine life.

[1] Project cash costs exclude royalties, tax and financing.

Based on preliminary geotechnical evaluations and allowances for ramp widths, pit slopes angles of 44 degrees for oxide material and 50 degrees for transitional and primary material were used in the pit optimisations by Peter O'Bryan Associates.

A conservative 10% mining dilution was used due to the preliminary nature of the studies.

The Mineral Resources that have been estimated Banfora Project are classified as Inferred Resources. In the absence of either Measured or Indicated Resources, no Ore Reserves can be declared in accordance with the JORC Code guidelines. No Ore Reserves have been declared for the Banfora Gold Project. The engineering assessment is based on in-pit Inferred Resources, referred to as the in-pit mineral inventory.

Infrastructure

The Banfora Gold Project is well located for development. Regional topography indicates that all required infrastructure can be readily accommodated. The studies also addressed accessibility of key existing infrastructure and services. The following aspects of the Banfora Gold Project have been assessed favourably:

- Proposed plant, tailings and water storage dam locations;
- Surplus supply of water from annual wet season as well as excess ground water supply to be captured by a water storage facility/dam – excess water for a 2.5mtpa operation as well as anticipated plant expansion and future production ramp up;
- Power – appears highly likely to access the existing transmission power grid adjacent the Banfora Gold Project area;
- Telecommunications – utilising existing tower and satellite facilities; and
- Use of existing roads suitable for Project requirements, in addition to location of new haulage roads.

Social, Community and Environmental

In addition to the engineering studies, a number of preliminary social, community and environmental impact assessments have been completed. These studies are a precursor to completing baseline studies for the Projects Environmental Impact Assessment (EIA) and have been completed in accordance with both international best practice and IFC (a member of the World Bank Group) Standards and in compliance with Burkina Faso legislation.

Other aspects of the studies, focusing on social, community and environment included:

- Social and Environmental impact assessment scoping studies undertaken by Cardno and KBC;
- Environmental and Social Assessment Program in accordance with IFC Guidelines and Regulations;
- Continuous local Community engagement programs; and
- Continuous local Government and Ministerial engagement.

Gryphon maintains consistent communication with Government and local community stakeholders who continue to give strong support to the company and any proposed future mining development at the Banfora Gold Project. Further information on the social, community and environmental studies undertaken to date can be found on the website: http://www.gryphonminerals.com.au/en/corporate-profile/environment-social.html

Capital Costs

Capital cost estimates for the current 2.5mtpa operation have been prepared by Lycopodium and are estimated at US$160 million plus contingencies. Costing for a 3.5mtpa operation has not been undertaken in this study, a detailed cost estimate will be undertaken in the next study.

Key items in the capital cost estimate include:

Capital Item	US$ Million
Construction Establishment Costs	12
Treatment Plant Costs (includes milling, treatment plant, tanks)	63
Reagents and Plant Services	6
Infrastructure (includes power, tailings and water dams, camp)	43
EPCM	19
Owners Costs	13
Other	4
Subtotal[1]	**160**

[1]Excludes contingencies of 15%

Exploration and Resource growth

The preliminary study assessment is based only on the current inferred resource estimate of 29Mt @ 2.1g/t for 2,000,000oz gold.

Table 1: Banfora Gold Project Resource Estimate

Deposit	Category	Tonnage (Mt)	Grade Au (g/t)	Contained Gold (Million Ounces)
Nogbele	Inferred	16	2.2	1.2
Fourkoura	Inferred	4.4	2.1	0.3
Samavogo	Inferred	8.2	2.0	0.5
Total Banfora Gold Project	**Inferred**	**29**	**2.1**	**2.0**

Note: 0.9g/t Lower Cutoff Grade & variable Top Cuts by Domains at Nogbele and Fourkoura.
1.0g/t Lower Cutoff Grade has been applied at Samavogo as a provisional allowance for haulage to Nogbele deposit.

Key aspects to the current resource estimate at the Banfora Gold Project include:

- The resource is shallow with the majority from surface to 100 metres depth;
- Mineralisation remains open at depth and along strike;
- To date the total resource at the Banfora Gold Project is located on only three deposits (Nogbele, Samavogo and Fourkoura);
- To date approximately 330,000 metres of resource and regional reconnaissance drilling has been undertaken by Gryphon Minerals at the Banfora Gold Project to discover 29Mt @ 2.1 g/t for 2,000,000 oz of gold; and
- Gryphon Minerals has an aggressive exploration budget of A$30 million at the Banfora Gold Project which will equate to approximately 600,000 meters of drilling and enabling anticipated resource growth in 2011/2012 as well as targeting new satellite discoveries.

On-going exploration at the Banfora Gold Project will focus on the following:

- Step out drilling at the Nogbele, Fourkoura and Samavogo gold deposits;
- Deeper drilling targeting mineralisation below 100 meters vertical depth;
- Conversion of resource to reserve category;
- New regional exploration targets, including Ouahiri and Stinger; and
- Drill testing over 20 high priority targets across 120 kilometres of prospective regional shear zones.

Exploration and Resource growth – Selection of recently released drill results

Recent shallow drill results at Nogbele deposit (not included in the current resource) include: (ASX 06/07/2011)

- 8m @ 38.75g/t gold from 68m
- 5m @ 17.41g/t gold from 23m
- 3m @ 14.12g/t gold from 79m
- 2m @ 19.09g/t gold from 71m
- 4m @ 9.08g/t gold from 70m
- 11m @ 4.70g/t gold from 77m
- 18m @ 2.24g/t gold from 73m

Initial deeper drill holes targeting greater than 150 meters vertical depth at the Nogbele deposit include: (ASX 30/08/2010)

- 20m @ 3.30g/t gold from 172m
- 2m @ 9.60g/t gold from 187m
- 9m @ 3.30g/t gold from 160m
- 14m @ 5.09g/t gold from 149m
- 10m @ 4.27g/t gold from 191m

Recent shallow drill results for follow up at the Samavago deposit include: (ASX 16/12/10 and 23/03/11)

- 6m @ 9.89g/t gold from 13m
- 10m @ 5.14g/t gold from 67m
- 7m @ 4.80g/t gold from 38m
- 10m @ 6.21g/t gold from 93m
- 6m @ 9.41g/t gold from 102m
- 5m @ 11.23g/t gold from 131m

Regional gold mineralisation outside of the current resource estimate at the Ouahiri Prospect includes: (ASX 17/7/10)

- 15m @ 5.09g/t gold from surface
- 17m @ 2.55g/t gold from 16m
- 4m @ 12.00g/t gold from surface
- 6m @ 5.54g/t gold from 43m
- 11m @ 2.85g/t gold from 1m
- 7m @ 3.90g/t gold from surface

Project Management, Consultants and In-house expertise

The Company has brought together a number of experienced and highly qualified personnel and consultants assisted in the completion of these studies and will continue to be involved in the detailed feasibility studies of the Banfora Gold Project, these include:

Lycopodium	Process, plant & infrastructure design, metallurgical interpretation and project implementation
Knight Piesold	Water and tailings infrastructure design
Orway Mineral Consultants	Comminution circuit design
ALS Ammtec Perth	Metallurgical testwork
Peter O'Bryan Associates	Geotechnical assessment
KBC	Environmental assessment
Cardno	Social and environmental baseline assessment
IFC (member of the World Bank group)	Environmental, Social studies

Additionally, Gryphon is able to draw upon considerable in-house expertise in the project management and development of numerous gold mines in West Africa. Key Directors and staff involved in overseeing the project studies include:

Mr David Netherway, Non Executive Director
Mr Netherway is a qualified mining engineer and has over 30 years of project development and gold mining experience in West Africa. Mr Netherway has previously held Board positions with Equigold Limited which developed the Bonikro gold mine in Cote d'Ivoire and Orezone Resources Inc., which commenced development of the Essakane Mine in Burkina Faso. He also was the Chief Operating Officer of Semafo Inc. when it developed the Kiniero and Samira Hill mines and now which owns the Mana gold mine in Burkina Faso.

Mr Steve Zaninovich, Non Executive Director
Mr Zaninovich is a qualified engineer with considerable mining project development experience in West Africa. He is currently an executive with Lycopodium Minerals and has recently been involved in the development of a number of gold mines, including Akyem Project, Ghana (Newmont), Tarkwa Phase IV Project, Ghana (Gold Fields), Bibiani Mine Project, Ghana (Ashanti Goldfields), Konongo Operations, Ghana (Ghana Gold Mines), Chirano Mine (Redback) and Obotan Mine, Ghana (Resolute).

Mr Stuart Cruickshanks, Mining Engineer
Mr Cruickshanks is a qualified engineer and full time employee of Gryphon. He has more than 20 years operations and technical experience and, prior to joining Gryphon, spent seven years in consulting. He has been involved in numerous studies and operations implementation projects in West Africa, including Gold Fields Ghana Damang (Ghana), Sabodala Pre-Feasibility (Senegal) and LEFA corridor Feasibility (Guinea).

Mr Michael Fox, Exploration Manager
Mr Fox is the exploration manager for Gryphon in Burkina Faso. Mr Fox is a qualified geologist with more than 25 years experience, including the last 10 years in Africa. He has been involved in the review, financing and management of numerous project studies in Africa and currently managed all of Gryphons exploration and development activities in Burkina Faso.

Mr Marc Barnaby, Environmental, Social and Sustainability Manager
Mr Barnaby has more than 15 years of experience working for mining and engineering companies on various field technical and management roles specifically with managing community relations and development projects across Africa, the Middle East, South and South East Asia. He has been involved in building effective relationships with local and national government officials and has extensive experience managing local community sustainability.

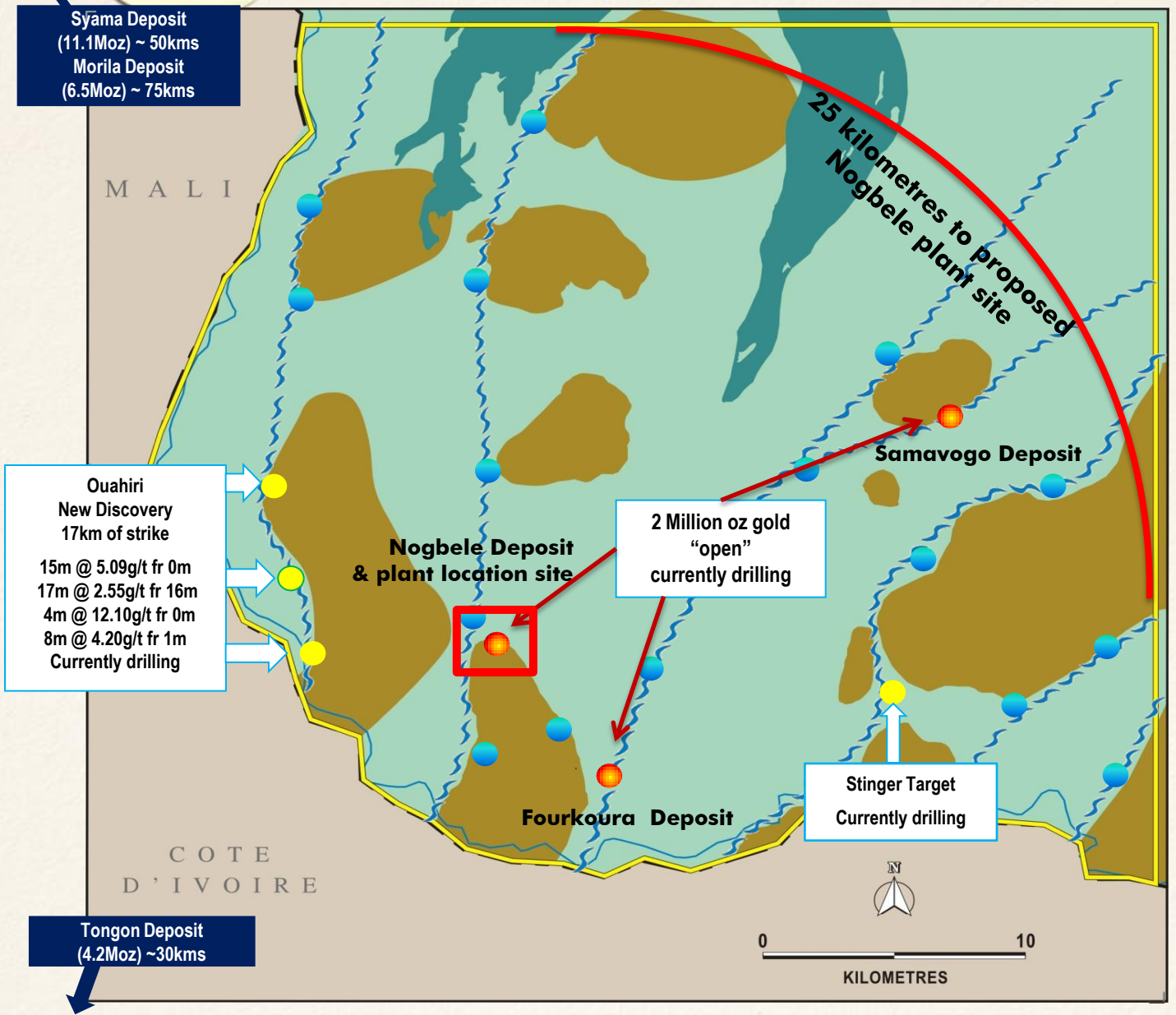
Detailed information on all aspects of Gryphon Minerals projects can be found on the Company's comprehensive website www.gryphonminerals.com.au

Yours faithfully

Steve Parsons
Managing Director

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Stephen Parsons, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Stephen Parsons is a full-time employee of the company. Mr Stephen Parsons has sufficient experience which is relevant to the style of mineralisation and type of deposits 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 Stephen Parsons consents to their inclusion in the report of the matters based on his information in the form and context in which it appears. Information in this report from data collection to wireframe interpretation, at Nogbele and Fourkoura Prospects and geostatistical modelling calculations is based on work by Mr Sam Brooks which was reviewed by Mr Michael Fox. Mr Brooks is a full time employee of Gryphon Minerals, and a member of the AIG. Mr Fox is a full time employee of Gryphon Minerals and a member of the AIG with sufficient experience relevant to the style of mineralisation and type of deposit to qualify as competent person defined by the 2004 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Fox consents to the inclusion in this report of the matters based on information in the form and context in which it appears. Information in this report relating to mining engineering has been compiled by Mr. Stuart Cruickshanks, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Stuart Cruickshanks is a full-time employee of the company. Mr Stuart Cruickshanks has sufficient experience which is relevant to the style of mineralisation and type of deposits 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 Stuart Cruickshanks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Banfora Regional
Emerging multi-million oz gold district



- **Over 120km of highly prospective regional shear zones**
- **So far less than 5% have been drill tested**
- **Currently only 3 prospects (Nogbele, Fourkoura & Samavogo) have inferred resource estimates totaling 2 Million oz gold**
- **A further 20 high priority walk up regional targets for testing in 2011**

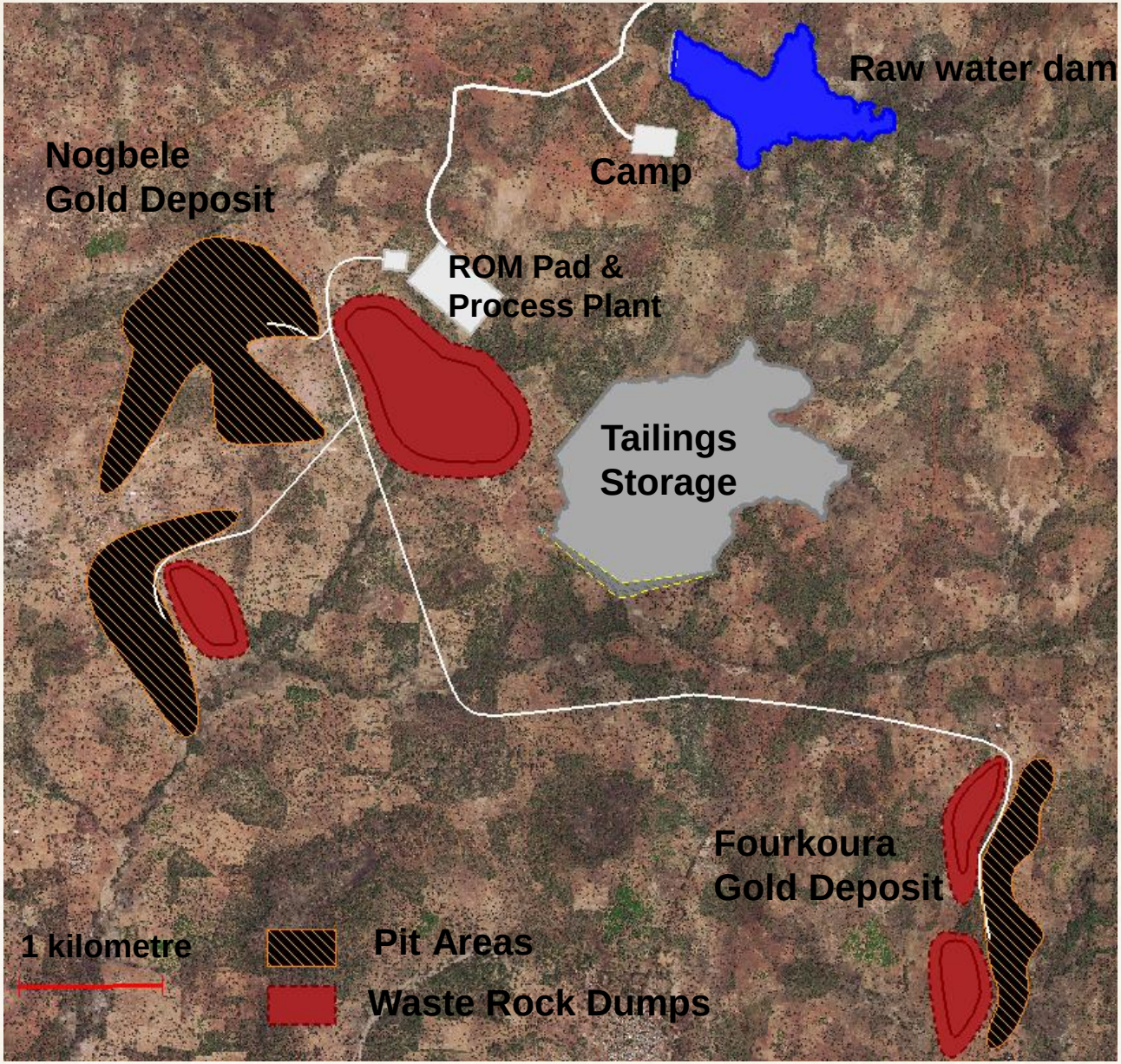
Resource growth

Aiming for next resource growth

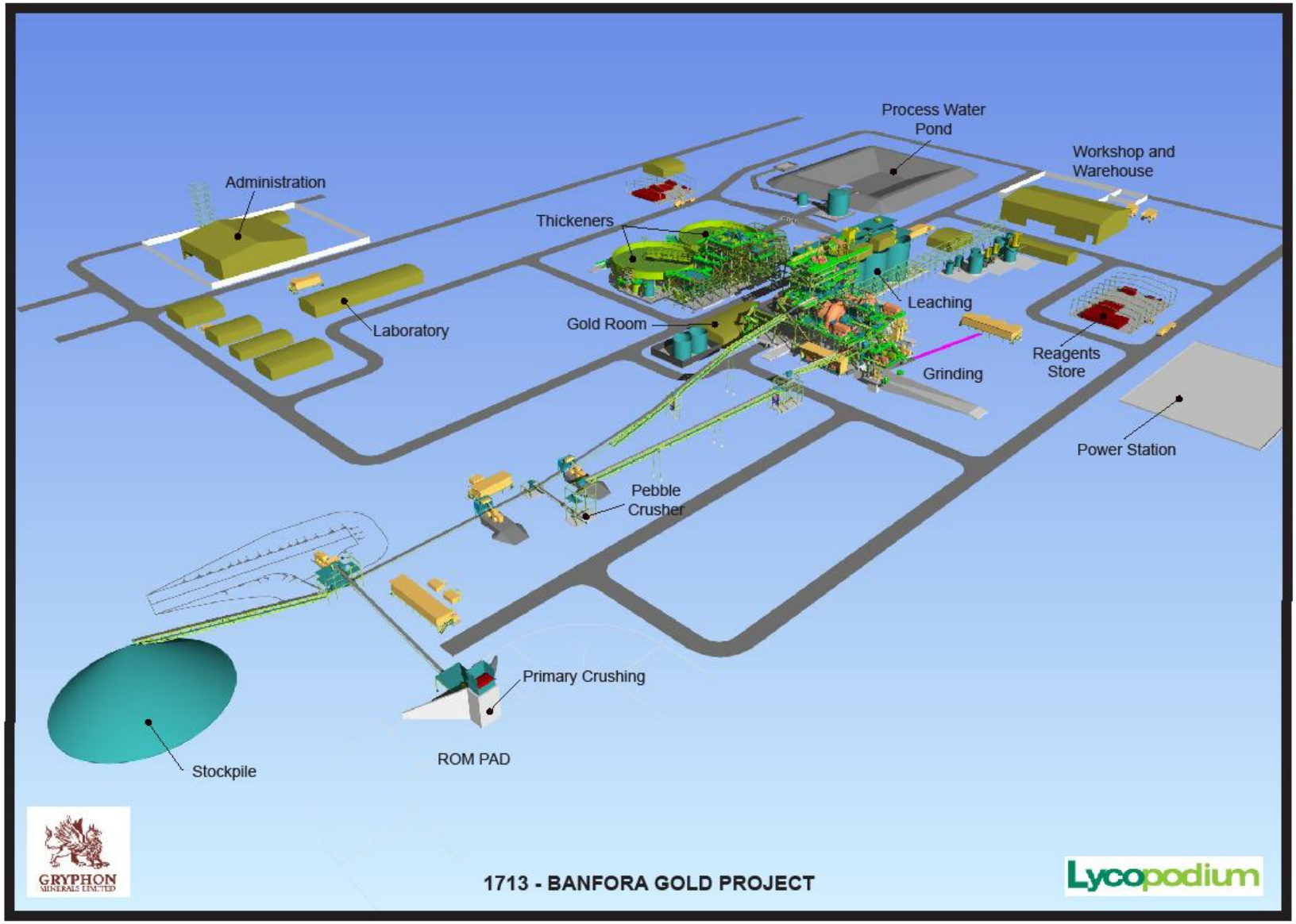
High Priority walk up drill targets

Plant location site

Banfora Gold Project
Plant Location - Nogbele Deposit



Banfora Gold Project
Plant Layout Design



GRYPHON MINERALS LIMITED

West Africa
Burkina Faso