

24<sup>th</sup> February 2010

## Southern Gold's first JORC-compliant Gold Resource - 102,600 oz - within Challenger Area Gold JV project

- **Inferred Mineral Resource of 102,600 ounces Gold at Golf Bore prospect**
- **Golf Bore just 40 km northeast of Dominion's producing Challenger gold mine**
- **Golf Bore Resource is open at depth**

The first ever JORC-compliant resource for Southern Gold Limited (ASX code: "SAU"), an Inferred Resource of 102,600 ounces of gold – has been announced for the Golf Bore Prospect within the Company's majority owned Gawler Craton joint venture acreage surrounding the Challenger gold mine in the far west of South Australia.

The Company's maiden gold Resource for Golf Bore, located 40 kilometres northeast of the Challenger Mine – was prepared for Southern Gold Ltd by mining consultancy, Runge Limited.

The area generating the Golf Bore estimate covers about 1.1 kilometres of lateral strike with the 102,600 ounce Inferred Resource grading 1 gram per tonne (g/t) contained within about 3.2 million tonnes of mineralised material. The Resource is summarised in Table 1 below.

**Table 1: Golf Bore Gold Deposit Inferred Mineral Resource Estimate (0.5g/t Gold Cut-off)**

Type	Inferred Mineral Resource		
	Tonnes T	Gold g/t	Gold Ounces
Oxide	806,000	1.2	31,300
Fresh	2,430,000	0.9	71,300
<b>Total</b>	<b>3,236,000</b>	<b>1.0</b>	<b>102,600</b>

Significant potential exists to increase the size of the Resource within the immediate area at Golf Bore as the deposit is open to the northeast and at depth down dip. However, the complex folded nature of the shear zones requires close-spaced drilling to best define the overall extent of each mineralised vein.

The currently defined Resource at Golf Bore is expected to be insufficient to sustain a standalone mining operation, but may have economic potential in the future as a satellite deposit or as part of a larger operation if other mineable deposits are discovered in the vicinity.

The establishment of a JORC compliant Resource at Golf Bore is just part of Southern Gold's active gold exploration program on the Joint Venture. Southern Gold, as Manager of the Joint Venture, is currently prioritising and assessing more than 50 gold anomalies within its 5,000km<sup>2</sup> exploration footprint surrounding the million ounce Challenger Gold Mine.

The 2010 drilling program includes at least 7,000 metres of drilling across the exploration footprint held by the Joint Venture.

## About the Joint Venture

Southern Gold holds a 51% interest in the Challenger Area Gold Joint Venture after spending the required A\$2 million to earn the majority holding. Dominion Mining Limited (ASX:DOM) is now co-funding obligations to maintain its 49% stake in the Joint Venture (Figure 3).

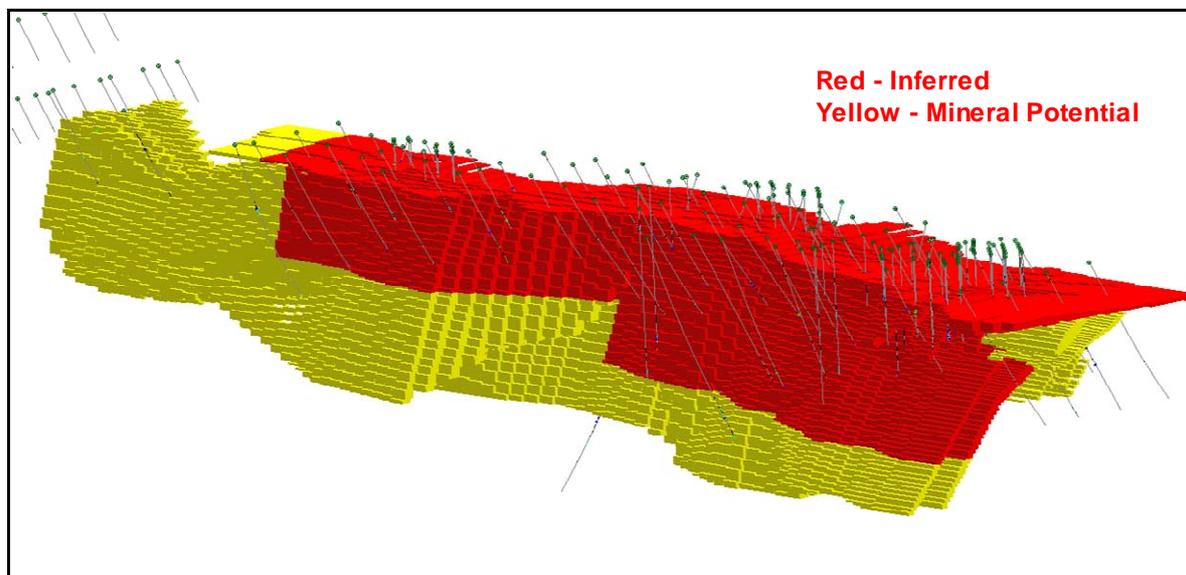


Figure 1 : Golf Bore Block Model Coloured by Resource Classification

## Potential to increase Gold Resources

The deeper RC holes drilled at Golf Bore have intersected mineralised veins which confirm the depth extension to the main lodes. In addition, drill holes have also intersected multiple veins to the east of the main lode which have been individually intersected by single drill holes. These represent immediate targets for future drill programs and could be upgraded to Inferred Mineral Resource once their extents have been more clearly defined with additional drilling.

The area of Mineral Potential to the north of the main Golf Bore deposit has been interpolated based on a line of shallow exploration AC holes to the north. These holes have intersected mineralised veins which remain open to the north and at depth, and represent immediate potential to upgrade to Inferred Mineral Resource with infill RC drilling (Figure 1).

## Resource Estimation

The deposit was estimated in a standard block model using Inverse Distance Squared (ID2) interpolation. The deposit was constrained by resource outlines based on mineralisation envelopes prepared using a nominal 0.2g/t Au cut-off. High grade cuts were determined by statistical analysis for the steep vein and supergene domains. A high grade cut of 20g/t Au was applied to the vein domain and a cut of 14g/t Au applied to the supergene domain. The resource is reported at a cut-off of 0.5g/t Au and is suitable for this deposit.

Although the Golf Bore deposit has complex folded, auriferous shear zones, the mineralised wireframes show continuity along strike and at depth with the current drill spacing. The deposit had been defined initially by historic RC drilling. Southern Gold has utilised RC drilling to verify mineralised zones, infilled shallow target areas with AC/slimline RC drilling and tested extensions of

these shallow targets at depth by more recent RC and DDH. Grades are highly variable within some individual veins which highlight the need to drill closer spaced drill patterns.

The resource estimate complies with recommendations in the Australasian Code for Reporting of Mineral Resources and Ore Reserves (2004) by the Joint Ore Reserves Committee (JORC) therefore it is suitable for public reporting.

## Resource Geology

The geology of the Golf Bore Deposit consists of variably foliated quartz-feldspar-biotite+/-chlorite+/-sericite+/-garnet gneisses, leucosomes developed within the gneissic package, felsic pegmatoids and rare mafic dykes. The gneissic stratigraphy has undergone retrograde alteration which overprints what is presumed to be garnet gneisses similar to those in other parts of the Christie Domain and the other gold prospects regionally.

The shear hosted mineralisation at Golf Bore is made up of numerous moderately dipping (60°), sheared auriferous envelopes that strike at 048° and dip to the north west (Figure 2).

Gold mineralisation at the Golf Bore is hosted in a fine grained, weakly to moderately foliated, quartz-feldspar-biotite+/-chlorite+/-sericite microgneiss. Higher grade mineralisation is contained within thin remnant quartz veining and leucosome development. Geochemically, the gold mineralisation is associated with arsenic (As) and to a lesser degree, silver (Ag). Gold grades are in the order of 2 g/t (with highest grade of approximately 50 g/t). Arsenic is generally in the order of 500 to 5000 ppm and Ag 0.2 to 1 ppm.

Although mineralised veins have been interpreted from the present drill data, the complex folded nature of the shear zones requires close spaced drilling to best define the overall extent of each mineralised vein. There is the risk that short scale variability will result in incorrect interpretations and resource estimations.

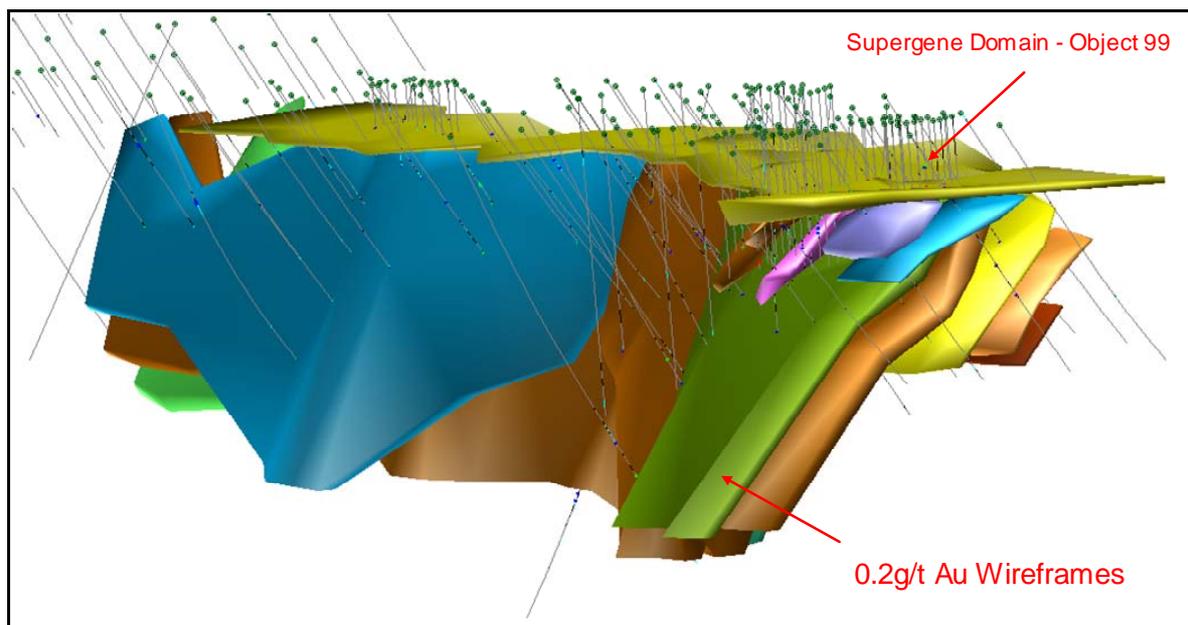


Figure 2. Golf Bore Gold Deposit resource wireframes – oblique view (looking east).

## Resource Estimate Parameters

The resource estimate was completed using the following parameters:

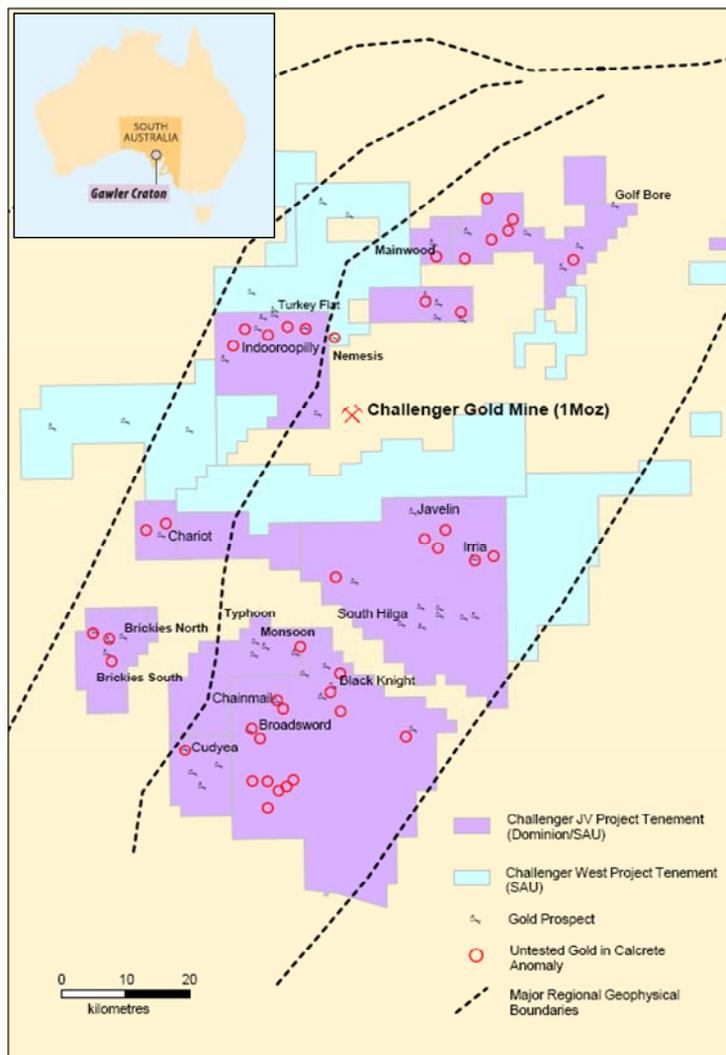
- The Golf Bore estimate covers a 1,100m lateral strike extent, while the vertical extent of the resource is 120m from surface at approximately 160mRL to 40mRL.
- Drill holes used in the resource estimate include 2 diamond drillholes, 91 RC drillholes and 66 AC drillholes for a total of 3,350m within the resource wireframes.
- RC drillholes in the resource were drilled at section spacings of 50m, while AC drillholes were clustered around high grade shoot positions.
- RC drillholes were sampled at 1m intervals. For much of the drilling, composite samples of 3m or 4m intervals were submitted for assay. Composite samples were taken as spear or grab samples. Composites returning anomalous grades (0.5g/t Au) were re-sampled in 1m intervals using a riffle splitter.
- Sample preparation and assay was carried out by ALS and Genalysis laboratories in Adelaide (South Australia) and Perth (Western Australia). Assaying for Au and multielements was completed using a combination of AAS and Fire Assay.
- Quality control data for the drilling has been reviewed by Runge and is considered adequate.
- All SAU drillholes prior to 2009 were surveyed at the collar using DGPS. Downhole surveys using a single shot Eastman camera were recorded at 30m depth intervals. Drillholes were predominantly drilled at -60° to 140° azimuth (GDA94 grid) or drilled vertically. Holes drilled by SAU in 2009 have been located by handheld Garmin GPS and tape measure from existing surveyed holes and have been drilled at -70° to either 140° or 040° azimuth (GDA grid).
- A project topographic wireframe was created using the surveyed drillhole collar information.
- Wireframes were constructed using cross sectional interpretations based on mineralised envelopes constructed at a nominal 0.2g/t Au cut-off. Samples within the wireframes were composited to even 1.0m intervals.
- A high grade cut of 20g/t Au was applied to the steep vein domain and a cut of 14g/t Au applied to the horizontal supergene domain.
- A Surpac block model was used for the estimate with a block size of 25m NS by 10m EW by 10m vertical with sub-cells of 12.5m by 2.5m by 1.25m. The model was rotated 048°.
- Inverse Distance Squared (ID2) grade interpolation used an oriented 'ellipsoid' search neighbourhood. Three passes were used to fill the model with greater than 80% of the model being filled in the first pass. An initial search radius of 50m was increased to 100m and then 200m for subsequent passes. A minimum of 10 samples was required for the first two passes and this was reduced to 4 samples for the third pass.
- Bulk density values were assigned on the basis of material type. The fresh rock domain was assigned a bulk density of 2.7t/m<sup>3</sup>, while a bulk density of 2.0t/m<sup>3</sup> was applied to the oxide domain. The fresh rock density was determined from 56 measurements taken from DDH drill hole GBDD002. The density assigned to the oxide material was derived from known values from the nearby Challenger Gold Mine dataset.
- The close spaced AC drill holes supported by wider spaced oblique drill lines of RC drillholes has allowed a substantial portion of the deposit to be classified as Inferred Mineral Resource. Large areas of the deposit to the north east and at depth have been classified as Mineral Potential due to the lack of quality, close spaced drill holes.
- Resource classification was based on drill hole sample quality, drillhole spacing and continuity of mineralisation. Drillhole spacing varied from 10m by 10m up to 40m by 50m and defined mineralisation with reasonable continuity of grade and structure. However due to the uncertain quality of the AC holes, the estimate was largely classified as Inferred Mineral Resource. AC drillholes have been drilled in 10m by 10m clusters in three separate locations around oblique RC sections. Those areas lacking RC or DDH drillholes to support AC drillholes, or areas interpreted at depth down dip, have been classified as Mineral Potential.

**For further information contact:**

Mr Stephen Biggins  
 Managing Director  
 T: +61 (0) 8 8368 8888  
 F: +61 (0) 8 8368 8899  
 E: [info@southerngold.com.au](mailto:info@southerngold.com.au)

*The information in this report has been compiled by Stephen Biggins (BSc (Hons) Geol, MBA) as an employee of Southern Gold and who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. As a Competent Person, he has a minimum of 5 years relevant experience in the style of mineralisation and types of activities being reported and has given written consent to the above report in the form and context in which it appears.*

*Information in this report relating to Mineral Resources has been completed by Mr Aaron Green of Runge Ltd., who is a member of the Australian Institute of Geoscientists. Mr Green 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 (the JORC Code). Mr Green consents to the inclusion of the data in the form and context in which it appears.*



**Figure 3. Location Plan for the Golf Bore Gold Deposit and the Challenger Area JV project.**