

4 December, 2014

# SolGold plc ("SolGold" or the "Company")

# Final IP Interpretations and Outcropping Copper Mineralisation Support Robust Porphyry Target at Southeast Alpala

The Board of SolGold (AIM code: SOLG) is pleased to provide the following exploration update for the Company's Cascabel copper-gold porphyry project in Ecuador.

# **HIGHLIGHTS:**

- ➤ Final electrical geophysical models (resistivity and chargeability) for Orion 3D Induced Polarisation ("3DIP") and magnetotelluric ("MT") surveys strongly validate target T2 at Southeast Alpala;
- Target T2 lies in the hanging wall to the Alpala Structural Zone, and comprises deep magnetic anomalies with strong electrical conductive responses around the upper parts of the anomaly;
- ➤ The core of the T2 target has dimensions of 600m by 300m, within a broader target area of 800m by 600m;
- ➤ Mapping at the T2 target at Southeast Alpala discovers chalcopyrite, bornite and chalcocite copper sulphide mineralisation in lithocap outcrops in Quebrada Malte and Rio Cristal;
- > IP data at T2 target consistent with magnetic vector inversion ("MVI") and geological datasets, indicating both magnetic and IP models are robust;
- Market update on the Aguinaga porphyry target will be made as soon as possible; and
- ➤ Hole 9 at 1298.42m depth (3 December) and intersecting strong visual copper sulphide mineralisation. An interval of 845.97m of visible copper mineralisation intersected to date.

Commenting on today's update, SolGold CEO and Managing Director, Alan Martin said:

"The clear definition of robust porphyry copper-gold targets along strike to the Northwest and Southeast of the Central Alpala Zone, strongly supported by geological, geophysical and geochemical datasets, gives the Company multiple targets to test along the potentially richly-endowed Alpala Structural Zone (ASZ). The validation and refinement of targets is testament to the high prospectivity of the 3 kilometre long ASZ corridor, and also to the SolGold technical team who have been collecting and integrating the exploration data at Cascabel".



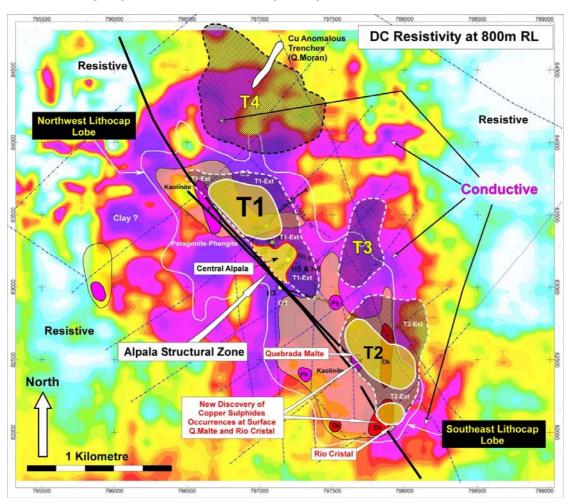
### **FURTHER INFORMATION**

Final Orion 3DIP chargeability models and conductivity models were received on 25 November from Quantec Geoscience for both the Alpala and the Aguinaga survey areas.

# Alpala Targets Following Interpretation of Orion 3DIP and MT Data

High priority targets T1 and T2 at Alpala, previously referred to as the 'North West Target' and 'South East Target' in prior RNS releases, are located beneath the northwest and southeast lithocap lobes respectively (Figure 1). Target T3 lies due north of Target T2 at Southeast Alpala. Target T4 lies north of Target T1 and covers likely deeper extensions of porphyry quartz stockwork veins that are mapped in Quebrada Moran (Figure 1).

First-pass integration of the Orion 3DIP geophysical data with surface soil geochemistry, alteration, the current mineralisation model at Central Alpala and recent surface mapping has validated and refined existing targets, and defined new targets (Figure 1).

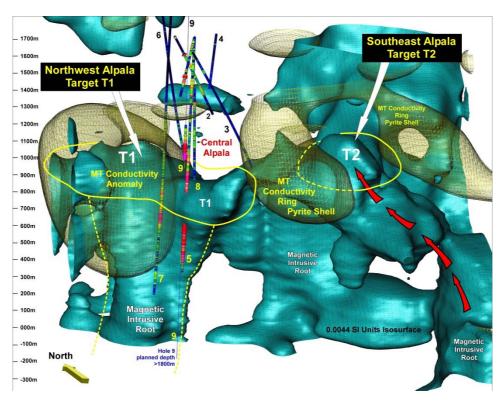


**Figure 1:** Location of high priority targets T1 and T2 at Alpala beneath the northwest and southeast lobes of the surface alteration lithocap (white outline). The dashed white outlines show areas of potential target extension beyond the core target area. Targets T3 and T4 are additional targets north of T2 and T1. The base map shows the Orion DC Conductivity model at approximately 800m depth (~800m RL). Conductive areas are coloured purple and resistive areas are white. Targets T1 and T2 occur within strong magnetic anomalies that exhibit conductive responses around their upper parts (due to sulphides, fracturing and clay alteration), and are overlain by zones of acid alteration and geochemical anomalism.



# Target T2 - Southeast Alpala

The T2 target at Southeast Alpala coincides with a deep magnetic ridge below the Southeast Alpala lithocap ("T2 Magnetic Ridge"; Figure 3). This north-northeast (N10E) trending magnetic ridge lies at around 600m depth and is capped by zones of magnetite destructive alteration above 1100m RL (Relative Level, above sea level) (Figure 5). A deep magnetic anomaly overlain by magnetite-destructive alteration – that reflects a shallow hydrothermal system – is common to both the T2 MVI anomaly and the Central and Northwest Alpala MVI anomaly.



**Figure 2:** View looking towards the east over the T1, T2 and T3 targets at Alpala. The magnetic model isosurface at 0.0046 SI units (turquoise) comprises three deep magnetic apophyses that coincide with porphyry copper-gold targets T1, T2 and T3. The T2 target at Southeast Alpala forms a distinct knoll at the southern end of a magnetic ridge that links to the north with Target T3. The red arrows indicate the modelled direction of the intrusive path at T2.

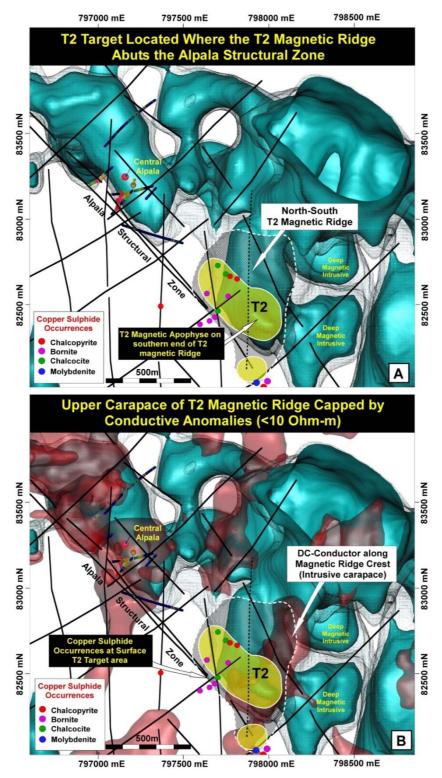
# Target T2 - MVI Dataset

The T2 Magnetic Ridge has dimensions of 800m north-south by 400m east-west and is close to the dimensions of the deep MVI anomaly at Central and Northwest Alpala. The magnetic signature is interpreted to be caused by primary and secondary magnetite along a north-south elongated and fault-controlled magnetic apophyse. The modelled upper surface of the T2 magnetic ridge reveals a knoll near its southern end where it abuts against the Alpala Structural Zone (Figures 2 and 3). The magnetic ridge forms the upper part of an interpreted intrusion that is bound on its west side by the ASZ (Figures 5-7). The ASZ is a key controlling fault for both Targets T1 and T2 (Figure 1).

# Target T2 – Orion 3DIP and MT Datasets

The Orion shallow conductivity and chargeability models reveal anomalous zones of conductivity (and chargeability) that cap the T2 magnetic ridge, indicating the presence of sulphides, fracturing and/or clays around this magnetic apophyse (Figure 3, Panel B).





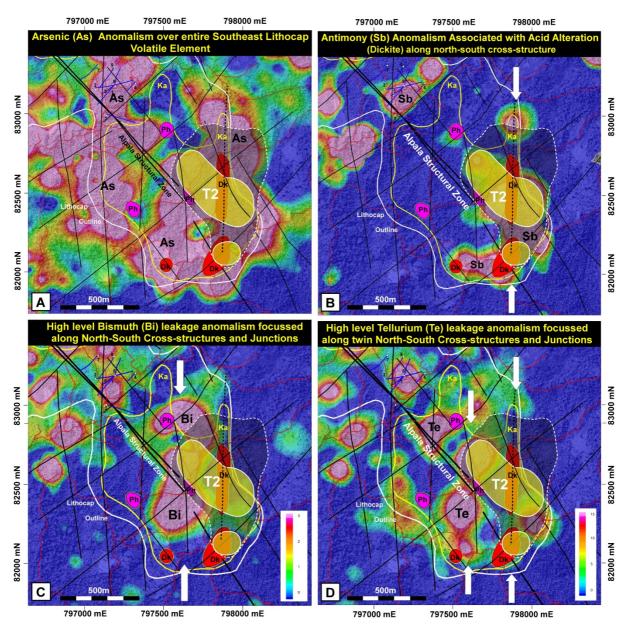
**Figure 3:** Panel A – MVI model at 0.0046 and 0.0052 SI units (turquoise), T2 target at Southeast Alpala, interpreted faults and location of copper sulphide occurrences mapped at surface. Panel B – As above, and with conductivity isosurfaces shown in red (<10 Ohm-m). Both Central Alpala and the T2 target lie along the hanging wall (NE-side) of the NE-dipping Alpala Structural Zone. North-south cross-faults appear to control the T2 magnetic ridge (Panel A) and its conductive cap (Panel B).



Orion MT conductivity data map out an annular ring (donut-shaped) conductive anomaly that wraps around the magnetic knoll at the south end of the T2 magnetic ridge (Figure 2). This conductive halo has a diameter of around 1 kilometre and lies below the Southeast Alpala lithocap. It is interpreted to be a pyrite shell that typically develops around porphyry copper-gold systems (Figures 5 and 6).

# Target T2 - Soil Geochemistry and Alteration Datasets

At surface, north-south zones of arsenic, bismuth, tellurium and antimony enrichment in soil samples (volatile path-finder elements that are enriched above porphyry deposits) overly the magnetic target and appear to be controlled by faults that tap the underlying target porphyry system (Figure 4).



**Figure 4:** Collage showing association between north-south cross-faults and pathfinder element geochemistry (soil data) over the Southeast lithocap. The Alpala Structural Zone, northeast and north-south cross-faults and the T2 target area at Southeast Alpala are illustrated. Acid-stable alteration minerals that form the lithocap include kaolinite (Ka), dickite (Dk) and pyrophyllite (Ph).



Arsenic is extensively anomalous over the Southeast Alpala lithocap, with anomalies broadly elongated north-south, parallel to north-south cross-faults (Figure 4; Panel A). Antimony anomalies lie in the southeast quadrant of the Southeast Alpala lithocap and along north-south structures that overlie the T2 magnetic ridge (Figure 4; Panel B). Both bismuth and tellurium form juxtaposed north-south elongate anomalies that also coincide with north-south cross-faults (Figure 4; Panels C and D).

This region of strong pathfinder element geochemical anomalism above and west of the underlying T2 magnetic ridge is associated with the acid-stable minerals kaolinite, dickite and pyrophyllite along north-south topographic lineaments. These alteration minerals form from magmatic fluids that emanate from an underlying porphyry copper-gold system and have ascended along the permeable north-south cross-faults.

# Target T2 - Mapping and Discovery of Copper Sulphide Occurrences at Surface

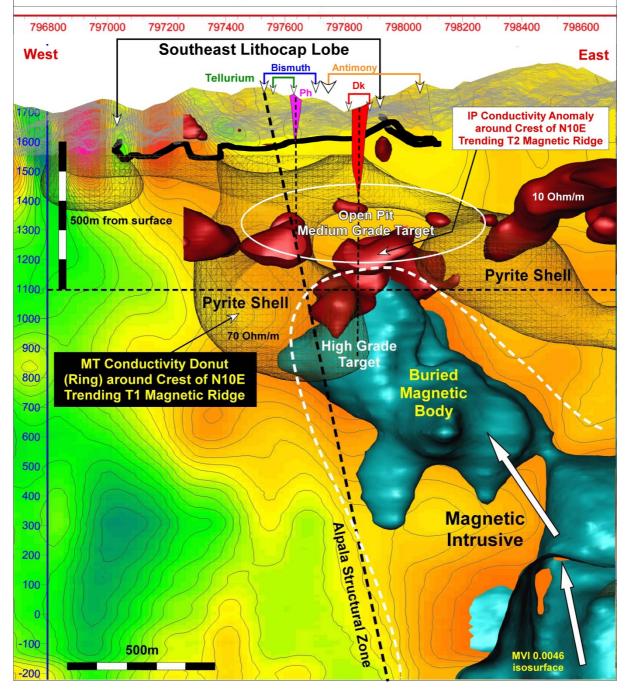
Recent mapping over the T2 target area at the Southeast Alpala lithocap has identified copper sulphide mineral occurrences (chalcopyrite, bornite and chalcocite) at surface in Quebrada Malte (Figure 3). Channel sampling is planned for this area and mapping is being conducted to further refine the target geology at surface.

The Orion 3DIP and MT, MVI, geochemical and geological data collectively define a robust and high priority porphyry copper-gold target under the Southeast Alpala lithocap.

Further details of the Southeast Alpala target (T2) will be provided following completion of surface mapping which is currently underway in the area.



# East-West Section through Southeast Lithocap Lobe and Target T2



**Figure 5:** East-west cross-section through Target T2 at Southeast Alpala. A magnetic apophyse ascending near the Alpala Structural Zone (interpreted from the 0.0046 SI unit isosurface) is capped by conductivity anomalies (red), and underlies north-south fault-controlled zones of acid alteration and bismuth, tellurium and antimony geochemical anomalism. The white dashed outline defines the T2 porphyry target, with a high-grade target zone developed near the Alpala Structural Zone.



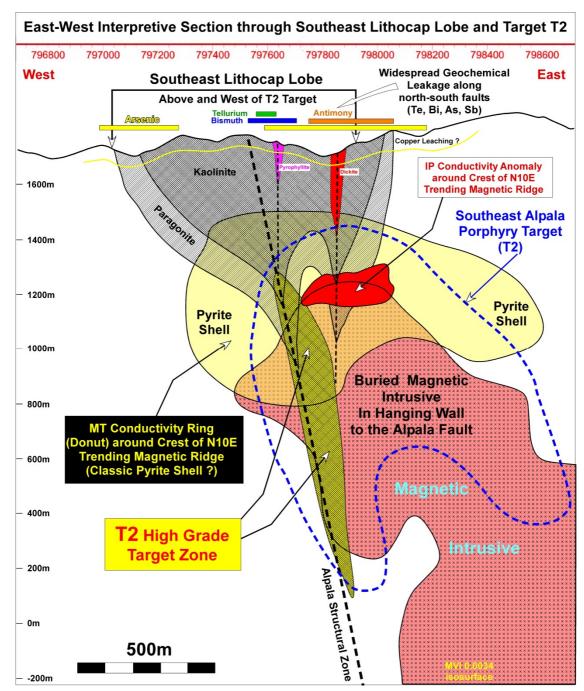
# East-West Section through Southeast Lithocap Lobe and Target T2 796800 797000 797200 797400 797600 797800 798000 798200 798400 798600 Southeast Lithocap Lobe Over and West of Target West **East Bismuth Shallow Tellurium Model Noice** Dickite **IP Conductivity Anomaly** around Crest of N10E Trending T2 Magnetic Ridge 10 Ohm/m 1200 **Pyrite** Shell **Pyrite** 1100 Shell Buried 1000 Magnetic 70 Ohm/m Body 900 800 Т2 **MT Conductivity Ring High Grade** 700 (Donut) around Crest of N10E Target Trending T2 Magnetic Ridge Zone 600 (Classic Pyrite Shell) 500 **Magnetic Intrusive** 400 300 200 100 0 500m

Figure 6: East-west cross-section through Target T2 at Southeast Alpala. A magnetic apophyse ascending near the Alpala Structural Zone (interpreted from the 0.0034 SI unit isosurface) is capped by conductivity anomalies (red), and underlies north-south fault-controlled zones of acid alteration and bismuth, tellurium and antimony geochemical leakage anomalism.

-100

-200





**Figure 7:** Interpreted east-west cross-section through Target T2 at Southeast Alpala. The Southeast Alpala porphyry target is shown by the blue dashed outline. High grade targets lie close to the Alpala Structural Zone and below the bismuth and tellurium surface anomalies.

# Hole CSD-14-009 Update

Hole CSD-14-009 ("Hole 9") was at a depth of 1298.42m on 3 December and progressing toward a minimum target depth of 1800m. The hole is presently drilling through strong visual copper sulphide mineralisation. The copper sulphides comprise coarse grained chalcopyrite associated with intense quartz stockwork veining and disseminated magnetite in zones of potassic alteration in quartz diorite intrusions. Visible copper sulphide mineralisation has now been intersected over an interval of 845.97m, from 452.45m to 1298.42m depth, and is continuing downhole.



# Note

Due to the highly technical nature of the information provided in this market release, a Glossary of Terms is available on the SolGold website.

# **London Mines and Money Presentation**

The presentation given by the Company's Managing Director, Mr Alan Martin, is available on the Company's website (www.solgold.com.au) under Presentations in the Investor Centre.

# **About Cascabel**

SolGold owns 21.1m shares (approximately 11%) in TSX-V-listed Cornerstone Capital Resources (Cornerstone), and 85% of Exploraciones Novomining S.A. ("ENSA"). ENSA is an Ecuadorean registered company, which holds 100% of the Cascabel concession in northern Ecuador. Cornerstone holds the remaining 15% of ENSA.

The Cascabel project is located in northwestern Ecuador in an under-explored northern section of the richly endowed Andean Copper Belt. World class deposits located within this belt include the 982 million tonnes at 0.89% Cu Junin copper project located some 60km to the southwest of Cascabel, the 3.3 billion tonnes at 0.36% Cu Cobre Panama deposit located to the north in Panama and the 905 million tonnes at 0.92 g/t Au La Colosa porphyry deposit located to the north in Colombia, containing 26 million ounces of gold. The Alpala Prospect exhibits surface mineralisation and alteration patterns indicative of a porphyry copper gold system and has a similar footprint to large porphyry systems around the world.

# **Qualified Person:**

Information in this report relating to the exploration results is based on data reviewed by Dr Bruce Rohrlach (BSc (Hons), PhD), the GM Exploration of the Company. Dr Rohrlach is a Member of the Australasian Institute of Mining and Metallurgy who has in excess of 26 years' experience in mineral exploration and is a Qualified Person under the AIM Rules. Dr Rohrlach consents to the inclusion of the information in the form and context in which it appears.

By order of the Board Karl Schlobohm Company Secretary



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# **NOTES TO EDITORS**

SolGold's exploration projects are located in northern Ecuador, Australia, and the Solomon Islands. In Ecuador, they consist of a joint venture with Cornerstone Capital Resources Inc. on the Cascabel copper-gold project. In Australia, SolGold holds 100% of the Rannes, Mt Perry, Cracow West and Normanby Projects, all in southeast Queensland. In the Solomon Islands they comprise the Fauro Project (located on Fauro Island), and the Lower Koloula, Malukuna and Kuma licenses, which are located on Guadalcanal.

The Cascabel copper-gold project is located approximately 180 km by sealed road north of Ecuador's capital, Quito, 20 km south of the Colombian border, and 75 km inland from the coastal city of San Lorenzo. At the Rannes project SolGold has announced indicated and inferred resources of 18.7 million tonnes at 0.9 g/t gold equivalent (gold + silver) for 550,146 ounces of gold equivalent (296,657 ounces of gold and 10,137,736 ounces of silver; see announcement dated 23 May 2012 for details of the resource statement and gold equivalent ratios). The Rannes project is currently under review.

In the Solomon Islands, a soil geochemical survey and 3D modelling of magnetic data has been approved at Kuma.

SolGold's objective is to create substantial shareholder value by discovering and defining world-class copper-gold deposits.



SolGold's Board includes accomplished professionals with strong track records in the areas of exploration, mine development, investment, finance and law. Board and Management have significantly vested interests in the Company, holding approximately 14% of its issued share capital.

SolGold is based in Brisbane, Queensland, Australia. The Company listed on London's AIM Market in 2006, under the AIM code 'SOLG' and currently has a total of 652,153,202 fully paid ordinary shares, 12,820,000 options exercisable at 50p, 12,730,000 options exercisable at 28p and 9,730,000 options exercisable at 14p.

# **CAUTIONARY NOTICE**

The news release may contain certain statements and expressions of belief, expectation or opinion which are forward looking statements, and which relate, inter alia, to the Company's proposed strategy, plans and objectives or to the expectations or intentions of the Company's directors. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from such forward-looking statements. Accordingly, you should not rely on any forward-looking statements and save as required by the AIM Rules for Companies or by law, the Company does not accept any obligation to disseminate any updates or revisions to such forward-looking statements.