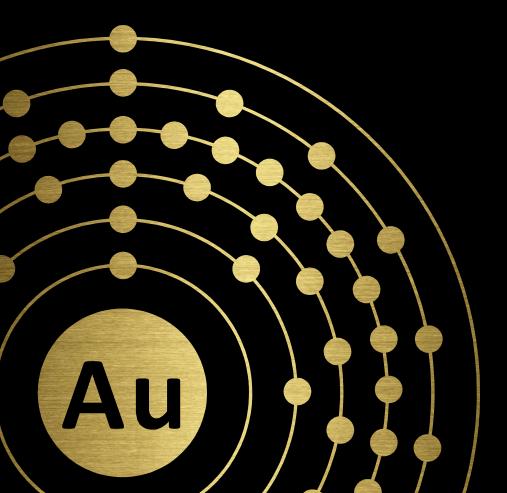


REVIEW OF DISCOVERY AND EMERGING POTENTIAL OF THE WAFI-GOLPU PROJECT

Mineral Exploration Round-up 2012



Mike Humphries
Exploration Executive
26 January 2012



Private Securities Litigation Reform Act Safe Harbour Statement



This presentation contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the safe harbour created by such sections. These statements may be identified by words such as "expects", "looks forward to", "anticipates", "intends", "believes", "seeks", "estimates", "will", "project" or words of similar meaning. All statements other than those of historical facts included in this presentation are forward-looking statements, including, without limitation, (i) estimates of future earnings, and the sensitivity of earnings to the gold and other metals prices; (ii) estimates of future gold and other metals production and sales, (iii) estimates of future cash costs; (iv) estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices; (v) statements regarding future debt repayments; (vi) estimates of future capital expenditures; and (vii) estimates of reserves, and statements regarding future exploration results and the replacement of reserves. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, project cost overruns, as well as political, economic and operational risks in the countries in which we operate and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the Company's latest Annual Report on Form 20-F for the year ended June 30, 2011 which is on file with the Securities and Exchange Commission, as well as the Company's other SEC filings. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstances after the date of this presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.





- 1 Introduction
- PNG Overview & Regional Geology
- Wafi Golpu Now
- Exploration History & Key Learnings
- Wafi Transfer Potential
- 6 Conclusion



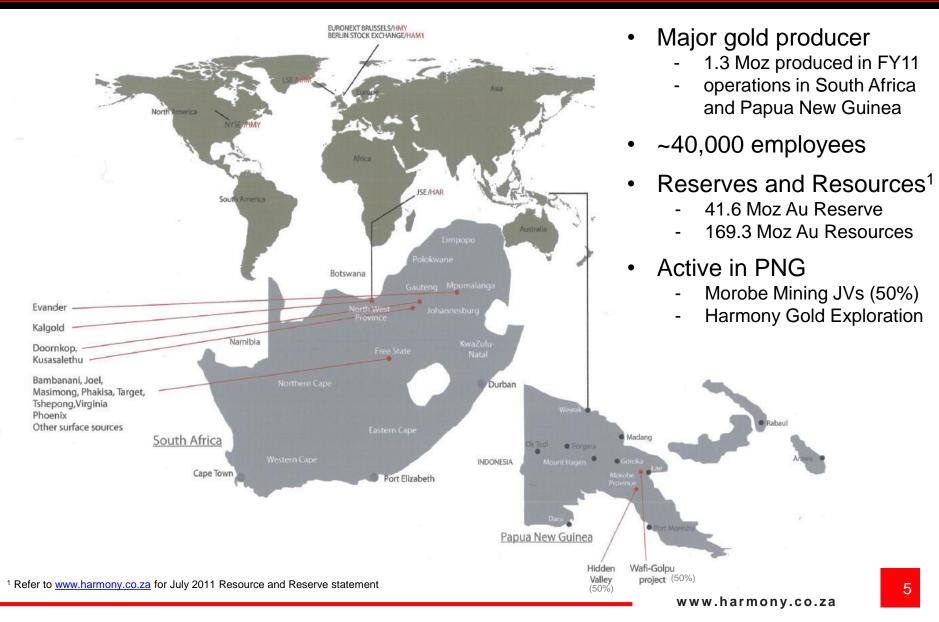
Introduction

www.harmony.co.za



Harmony Gold Mining Company Limited (Harmony)



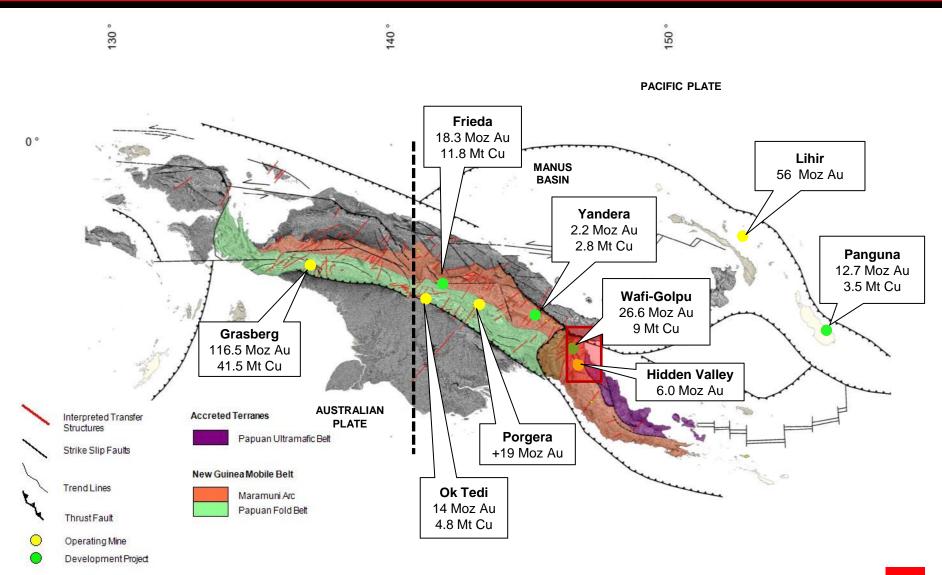






PNG: A World Class Mineral Belt

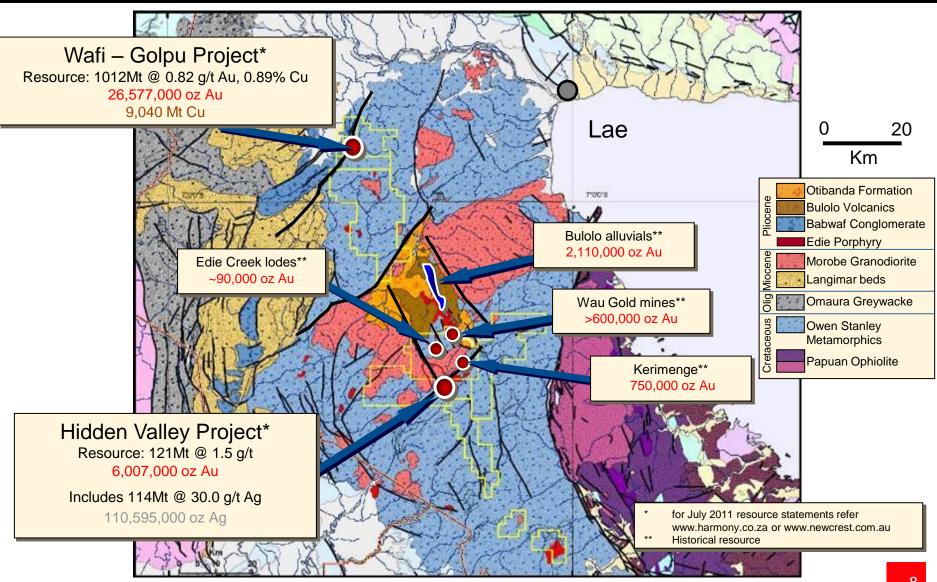




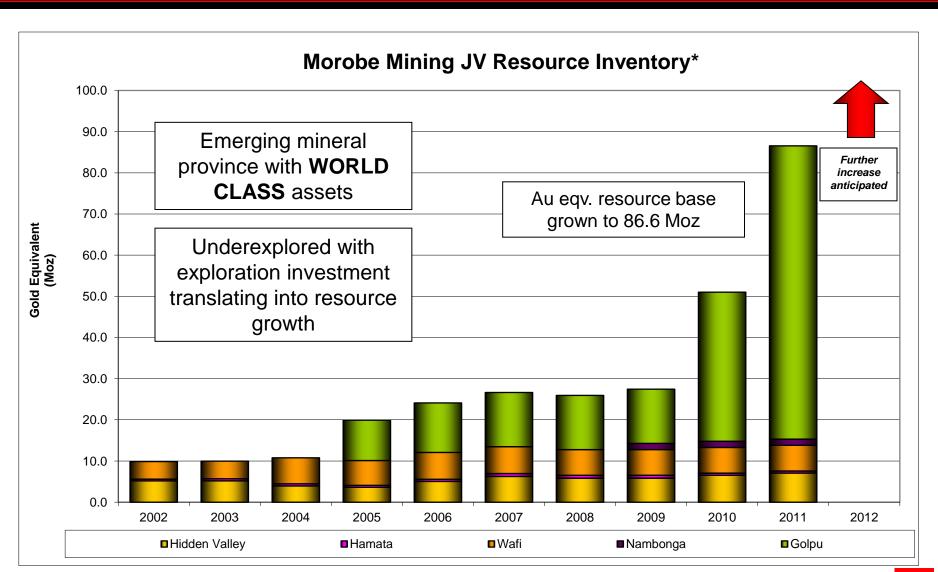


Morobe District Geology







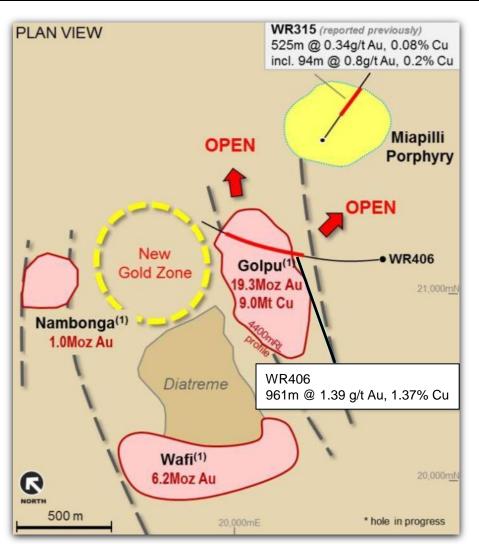






Wafi-Golpu JV Project





- 50:50 JV project with Newcrest Mining Limited, currently in prefeasibility
- Major mineralised system intrusive complex with multiple phases
 - o Copper gold
 - o Gold
- Total Resource comprises 3 deposits:

1.01Bt @ 0.82 % Cu, 0.89 g/t Au 26.6 Moz Au, 9 Mt Cu, 83 Kt Mo

- Excellent potential for expansion at "near mine" and at district scales
- (1) Refer <u>www.harmony.co.za</u> or <u>www.newcrest.com.au</u> for Statement of Mineral Resources & Ore Reserves to 30 June 2011. Resource figures quoted on 100% basis..



Wafi-Golpu System Schematic



GOLPU

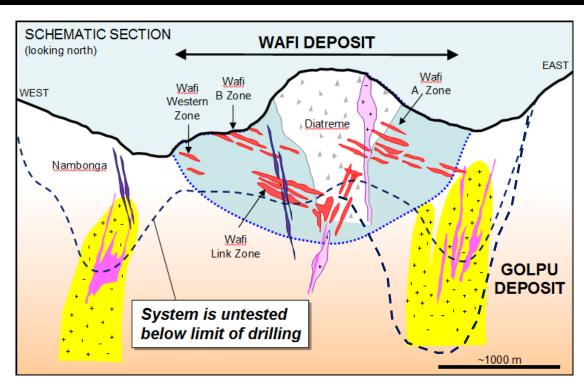
 Cylindrical shape amenable to block caving

WAFI.

- High sulphidation system (+oxide)
- Complicated metallurgical recovery
- Amenable to open pit and/or bulk underground mining

STUDIES

- 20 30Mtpa
- 300 700koz/yr gold
- 200 320kt/yr copper
- Early access to Golpu planned
- Golpu lowest qtr cost production





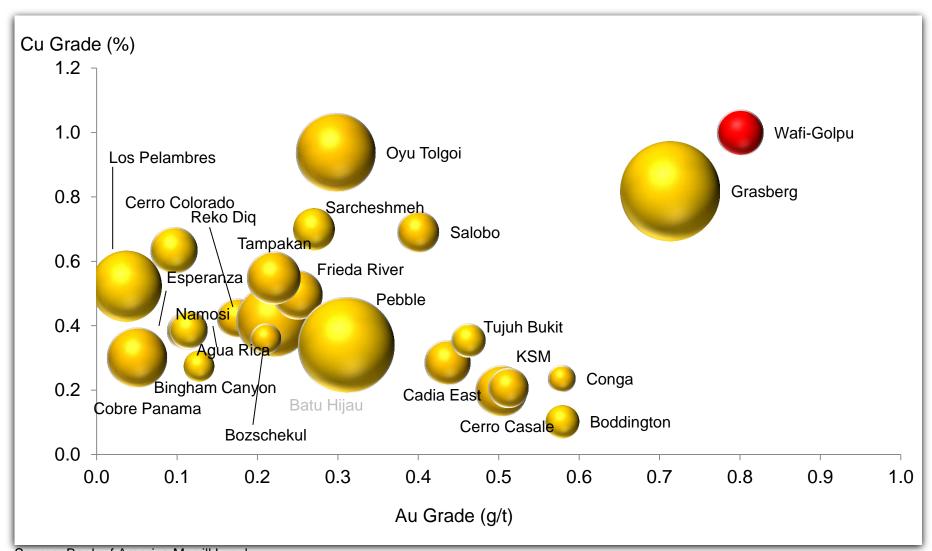


Golpu



Copper-gold porphyry deposits





Source: Bank of America Merrill Lynch Gold equivalent based on US\$1150/oz Au, US\$2.50/lb Cu at 100% recovery for both metals

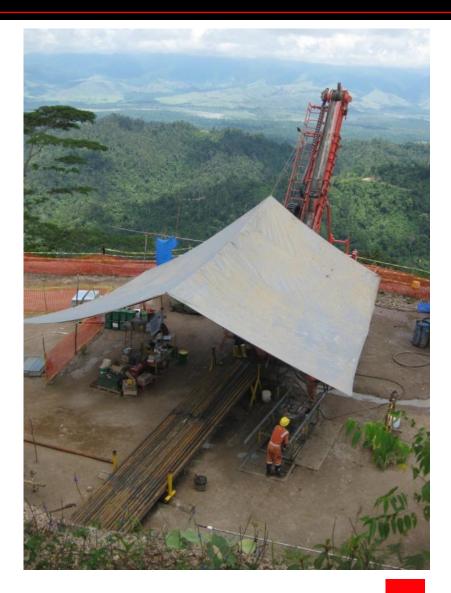




Exploration History



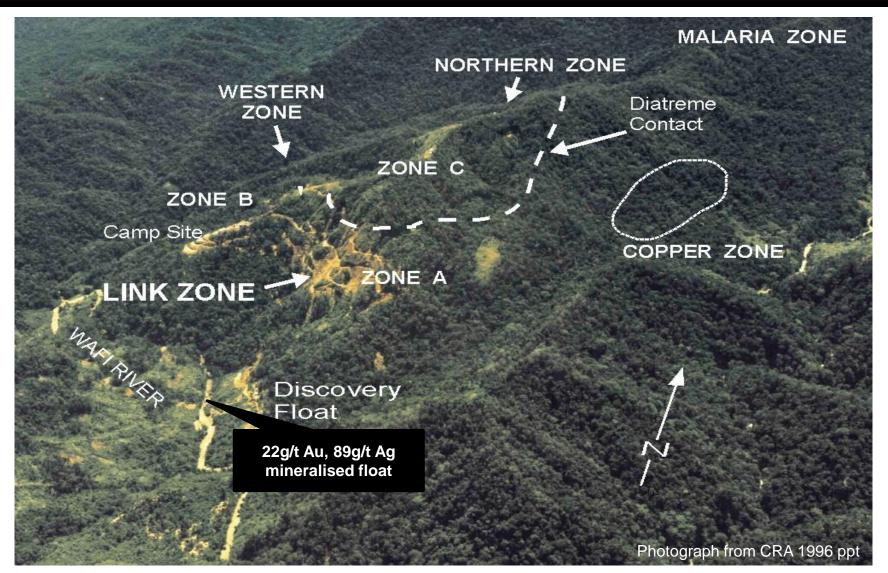
- 1977 1987: CRA Exploration
 - Discovered outcropping mineralisation at A zone. Developed as Au prospect
 - Drilled initial resource at Wafi
- 1987 1990: CRA Elders JV
 - Wafi developed to 18Mt @ 2.5 g/t Au
 - Golpu Cu-Au deposit discovered 100Mt @ 1.3 % Cu, 0.6 g/t Au
- 1990 1997: CRA Exploration
 - High grade "Link" zone discovery
 - Golpu concept / prefeas studies
- 1997 2004:
 - Periods on care and maintenance
 - Ownership changes (AGF, Aurora, Abelle)
- 2004 2008: Harmony Gold
 - Golpu Prefeasibility
 - Nambonga drilling
- 2008 current: Morobe Mining JV (50:50 Harmony – Newcrest)
 - Nambonga resource
 - Golpu extension discovery





Wafi – Golpu Early Exploration

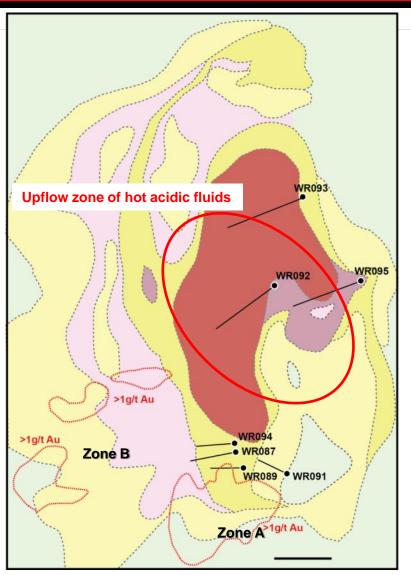


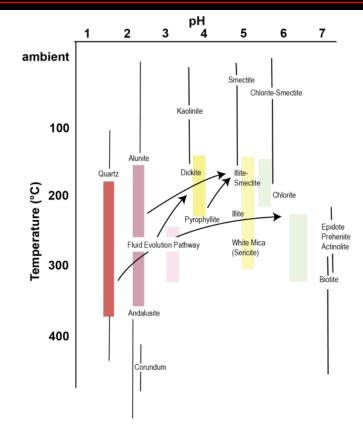




Wafi-Golpu (Elders – CRAE JV)





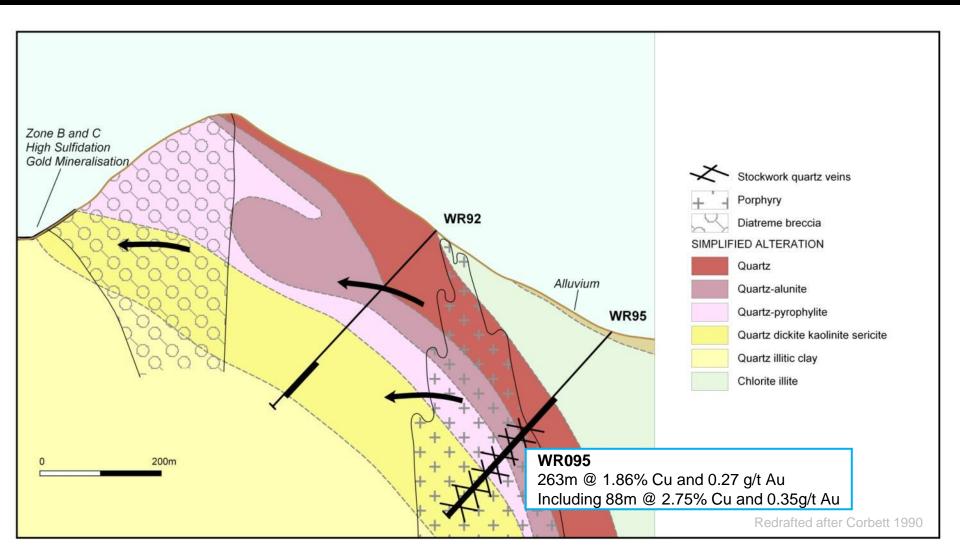


- Transition from dickite/kaolinite → quartz ± alunite was recognized a reflecting lateral changes in temperature and pH of the causative fluids
- A series of holes were proposed to test for a highgrade feeder zone to the gold mineralisation



Conceptual Model – Leading to Golpu Discovery

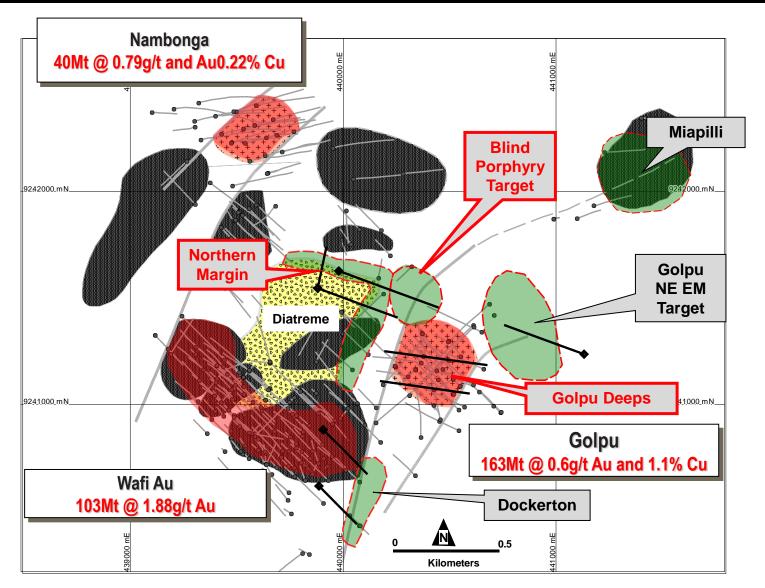






Wafi – Golpu Project July 2009 Exploration Targets

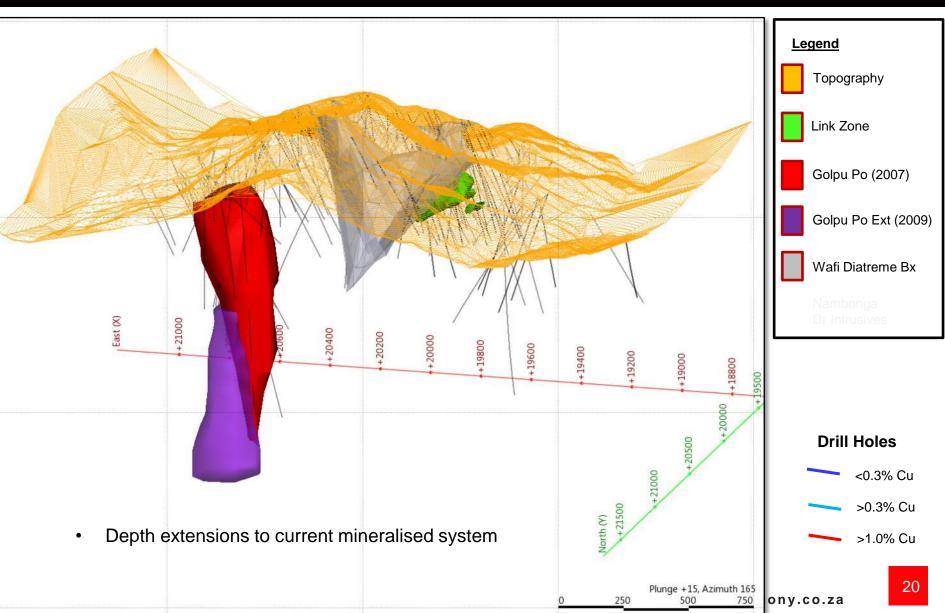






Golpu Deeps Rationale

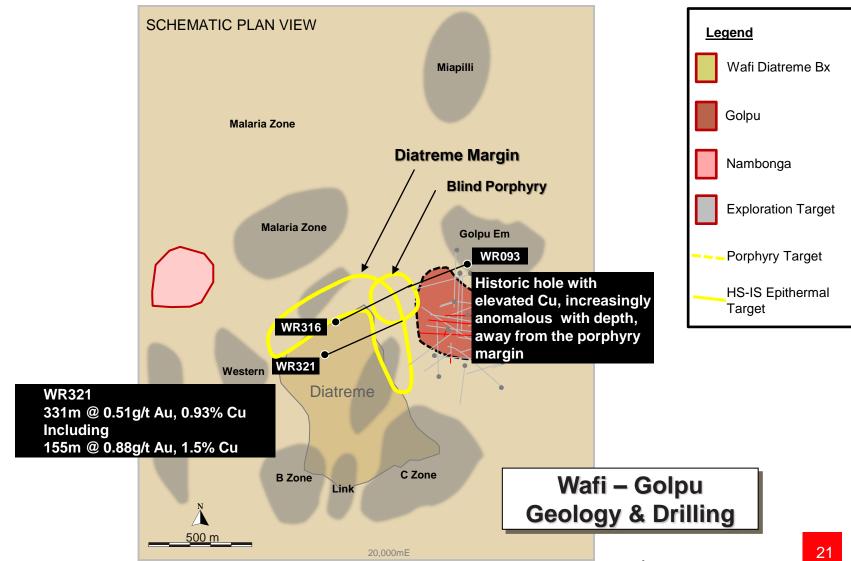






Blind Porphyry & Northern Diatreme Margin Rationale





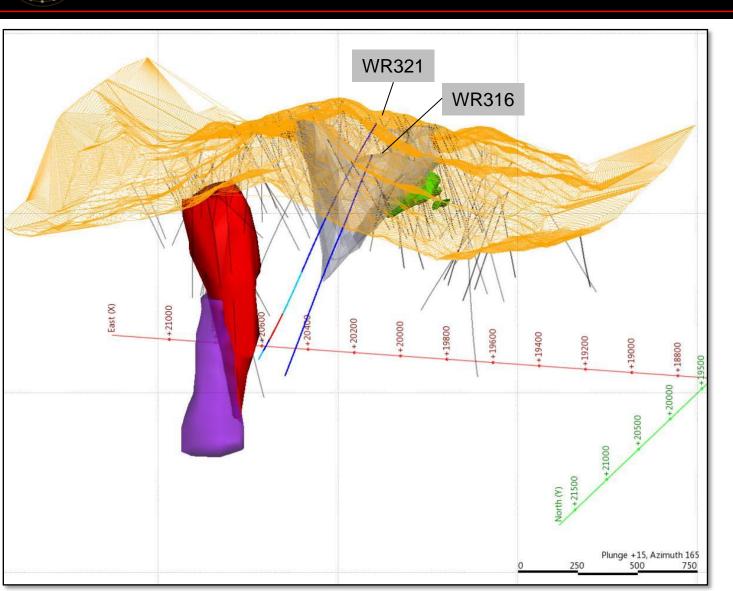


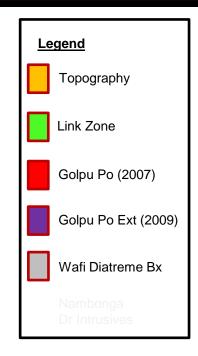


Oct, 2009:- WR321 extended beyond planned 800m owing to anomalous alt, increase in stockwork veins & increasing cpy and potassic alteration. Diorite porphyry intersected at 890m.

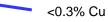
WR316 & WR321

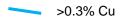


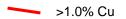








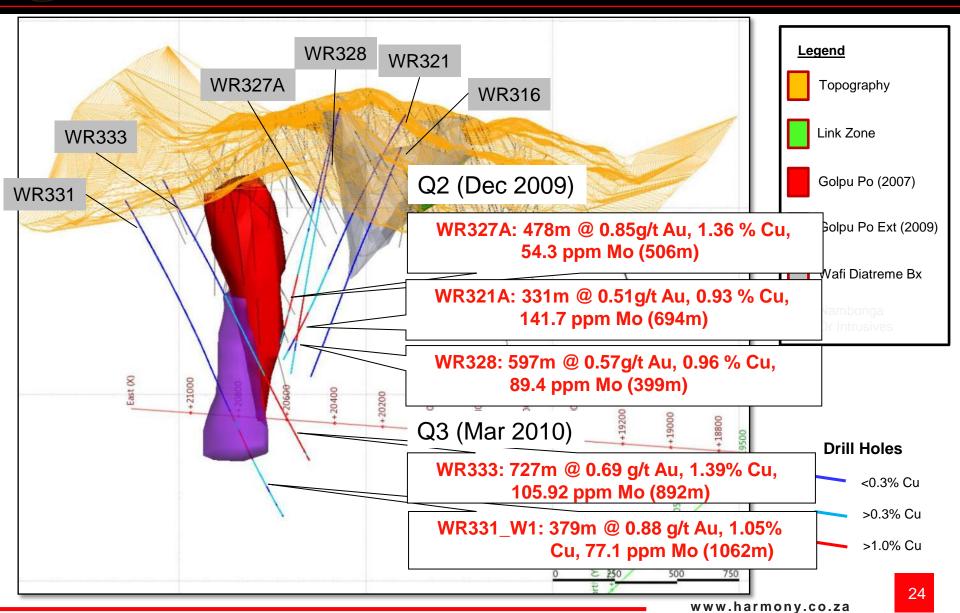






Golpu: WR328 – WR333

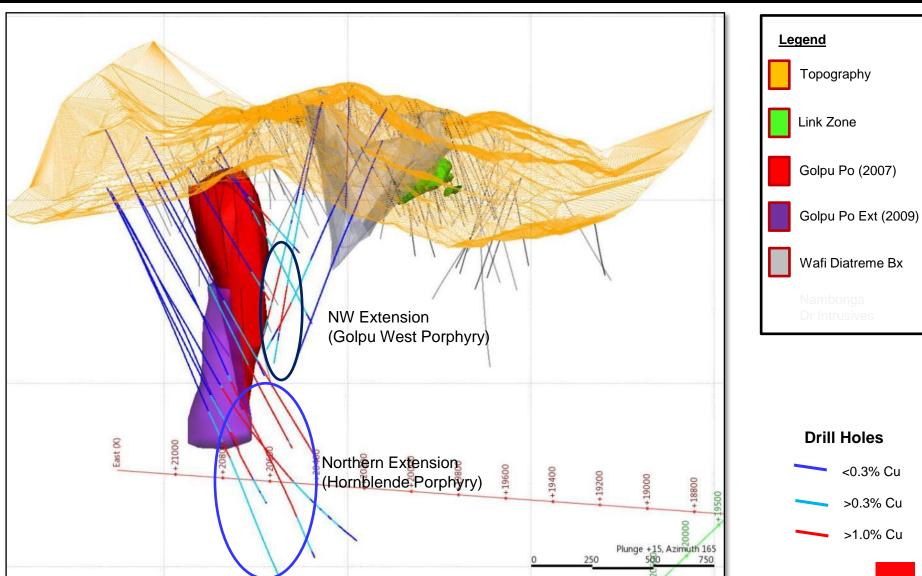






Golpu: Resource Extension Drilling WR333 – WR377







Significant intercepts



Hole ID	Interval (m)	Grade	Gold eqv. grade (g/t)	Gram meter intercept
WR337	802	1.13 g/t Au, 1.76 % Cu	4.31	3,456.6
includes	516	1.58 g/t Au, 2.43 % Cu	5.96	3,075.4
WR347	799	1.43 g/t Au, 1.9 % Cu	4.86	3,883.1
includes	606	1.79 g/t Au, 2.34 % Cu	6.01	3,642.1
WR363	595	1.65 g/t Au, 2.03 % Cu	5.31	3,159.4
includes	482	1.99 g/t Au, 2.4 % Cu	6.32	3,046.2
WR377	883	2.23 g/t Au, 2.15 % Cu	6.11	5,395.1
includes	628	3.06 g/t Au, 2.82 % Cu	8.15	5,118.2
WR406	961	1.39 g/t Au, 1.37 % Cu	3.86	3,709
includes	199	2.87 g/t Au, 2.57 % Cu	7.51	1,494.5

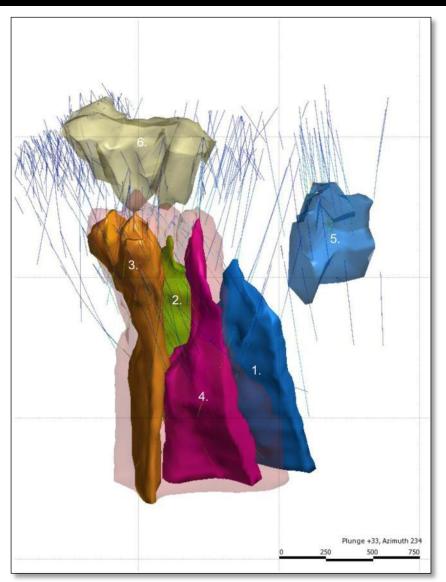
^{*} Intercepts reported >0.3% Cu with less than 10m of internal waste. Intervals of Cu >1.0% with up to 14m of internal waste are listed "inclusive" to highlight high-grade porphyry hosted mineralisation.

^{*} Ounce equivalent grades based on \$US 950 oz Au, \$US 2.5 lb Cu



Golpu Intrusive Complex... to date



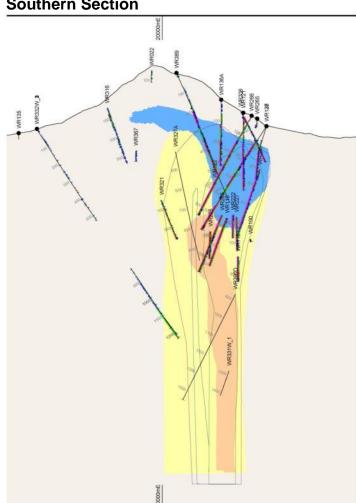


- 1. Diorite Porphyry
 - Sparsely porphyrytic feldsparphyric diorite
- 2. Golpu West
 - Crowded feldspar-phyric diorite
- 3. Golpu Porphyry
 - Quartz eye, 'square' feldsparphyric diorite
- 4. Hornblende Porphyry
 - Hornblende bearing feldsparphyric diorite
- 5. Nambonga diorite intrusive complex
 - Multiphase intrusions
- 6. Wafi Diatreme breccia complex

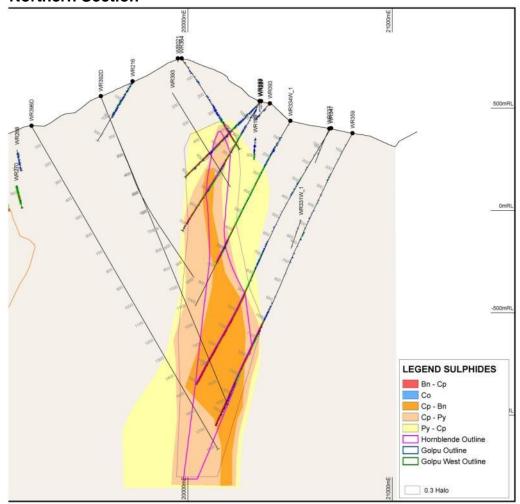




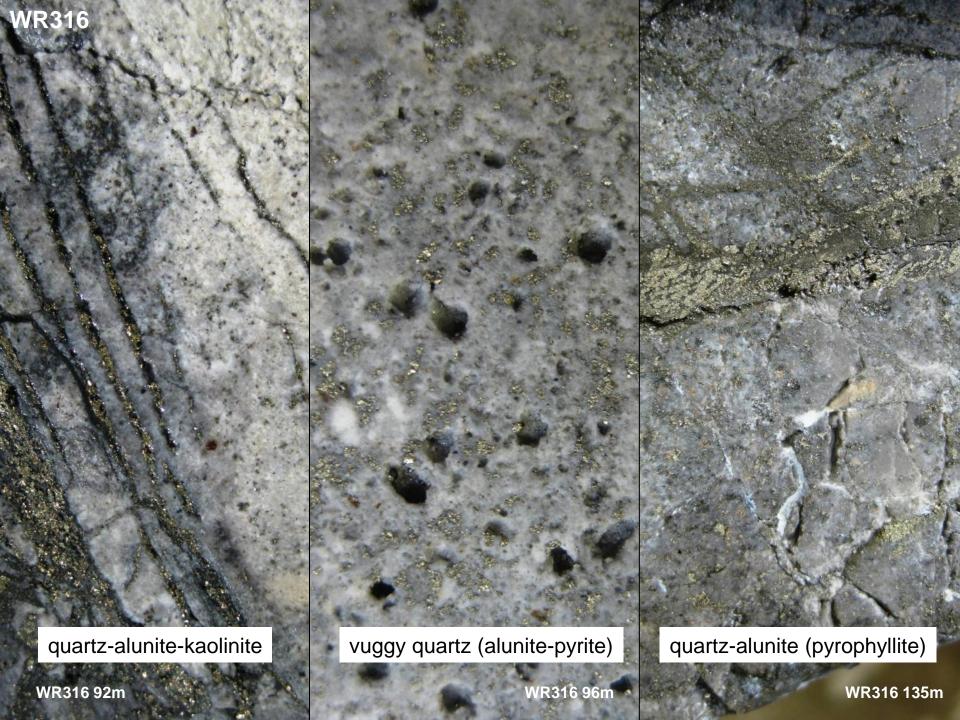
Southern Section



Northern Section









Porphyry Style Mineralisation







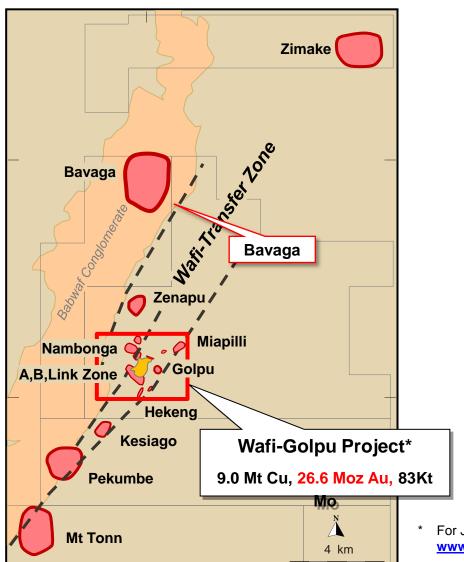
Key Lessons Learnt



- Aggressive drill testing of conceptual models and conceptual targets has underpinned success at Golpu
 - Deep drilling well considered and rationalised targets
- Continuous review and revision of working exploration models and query patterns that do not 'fit' the norm:
 - Atypical porphyry geometry
 - Increasing Cu grades in WR93 with depth
- Recognition of nested porphyries within a larger mineralised system
- Application of fundamental exploration methodology
 - Combining detailed petrographic observations
 - Recognition of potential for higher-grade zones
 - Application of sulphide and alteration zonation







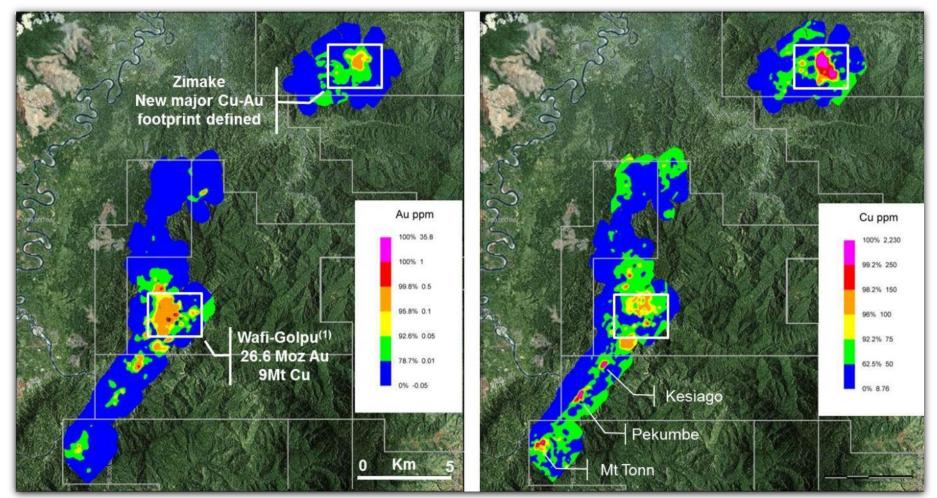
- Excellent prospectivity for major porphyry Cu/Au Systems and related epithermal Au mineralisation
- Regional exploration programs currently focussed at Bavaga, Zenapu, Zimarke and Mt Tonn
- 17km trend
- High tenor, cohesive gold surface geochemical anomalies with underlying magnetic intrusives
- Little previous exploration

For July 2011 resource statement refer www.harmony.co.za or www.newcrest.com.au



Wafi Transfer Zone – 'Elephant country'





Zimake: +1500m diameter; high-order Au+Cu geochemistry; coincident magnetic intrusive; Large scale exploration target



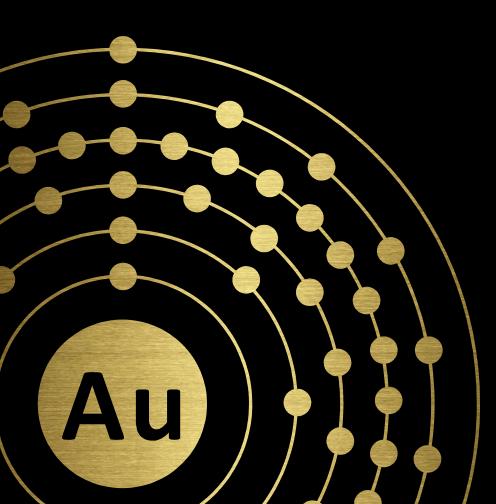






- Wafi-Golpu is a world class copper-gold system:
 - Standout amongst the highest grade porphyry systems in southeast Asia
 - 9 fold increase in the resource base to over 1 billion tonnes
- Resource potential of the Wafi-Golpu system is only beginning to crystallise :
 - Potential in the "near mine area" for extensions or new zones of gold and copper-copper gold mineralisation is excellent
 - Potential for clusters and alignments of new centres of mineralisation
- The New Guinea mobile belt represents a fertile porphyry copper gold belt with huge exploration upside:
 - Harmony have established a valuable tenement portfolio (including regional tenements outside of the Morobe JV) and have skills and resources to repeat the success at Wafi-Golpu





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