

## Mt Magnet, Hidden Valley & Golpu overview

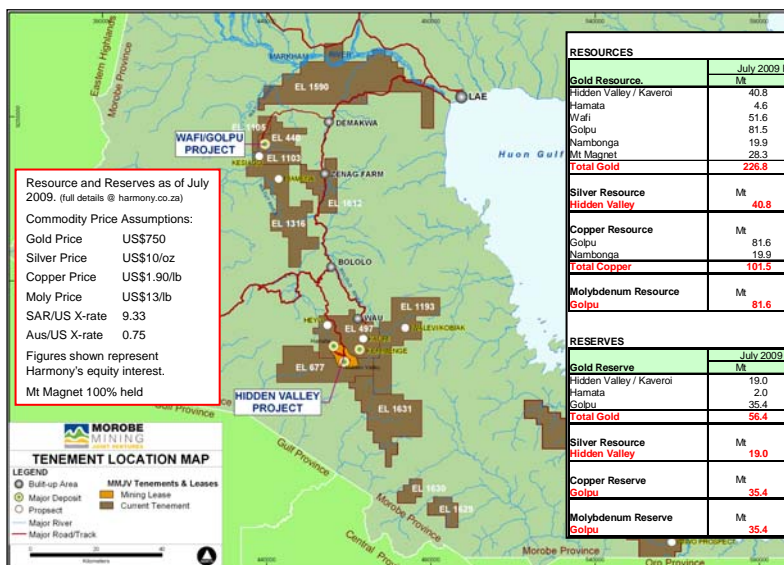
Johannes van Heerden, CEO South East Asia  
Investor Day Presentation  
19 August 2009



Ticker codes JSE : HAR  
NYSE : HMY  
LSE : HRM



## 2009 SEAsia Resources & Reserves



Resource and Reserves as of July 2009. (full details @ harmony.co.za)  
Commodity Price Assumptions:  
Gold Price US\$750  
Silver Price US\$10/oz  
Copper Price US\$1.90/lb  
Moly Price US\$13/lb  
SAR/US X-rate 9.33  
Aus/US X-rate 0.75  
Figures shown represent Harmony's equity interest.  
Mt Magnet 100% held

**MOROBE MINING**  
TENEMENT LOCATION MAP  
LEGEND  
● Built-up Area  
○ Major Deposit  
○ Prospect  
— Major River  
— Major Road/Track  
■ MMJV Tenements & Leases  
■ Mining Lease  
■ Current Tenement

RESOURCES			
July 2009 Resource 50% Equity			
Gold Resource	Mt	Au g/t	Oz ('000s)
Hidden Valley / Kaverol	40.8	1.78	2,354
Hamata	4.6	2.37	354
Wafi	51.6	1.88	3,116
Golpu	81.5	0.57	1,482
Nambonga	19.9	0.79	505
Mt Magnet	28.3	3.19	2,907
<b>Total Gold</b>	<b>226.8</b>	<b>1.47</b>	<b>10,698</b>
<b>Silver Resource</b>	<b>Mt</b>	<b>Ag g/t</b>	<b>Oz ('000s)</b>
Hidden Valley	40.8	32	41,968
<b>Copper Resource</b>	<b>Mt</b>	<b>Cu %</b>	<b>lbs (million)</b>
Golpu	81.6	1.1	1,941
Nambonga	19.9	0.2	95
<b>Total Copper</b>	<b>101.5</b>	<b>0.3</b>	<b>2,036</b>
<b>Molybdenum Resource</b>	<b>Mt</b>	<b>Mo ppm</b>	<b>lbs (million)</b>
Golpu	81.6	132	24
RESERVES			
July 2009 Reserve 50% Equity			
Gold Reserve	Mt	Au g/t	Oz ('000s)
Hidden Valley / Kaverol	19.0	2.02	1,231
Hamata	2.0	2.66	171
Golpu	35.4	0.61	694
<b>Total Gold</b>	<b>56.4</b>	<b>1.16</b>	<b>2,097</b>
<b>Silver Reserve</b>	<b>Mt</b>	<b>Ag g/t</b>	<b>Oz ('000s)</b>
Hidden Valley	19.0	36.90	22,522
<b>Copper Reserve</b>	<b>Mt</b>	<b>Cu %</b>	<b>lbs (million)</b>
Golpu	35.4	1.1	892
<b>Molybdenum Reserve</b>	<b>Mt</b>	<b>Mo ppm</b>	<b>lbs (million)</b>
Golpu	35.4	121	9

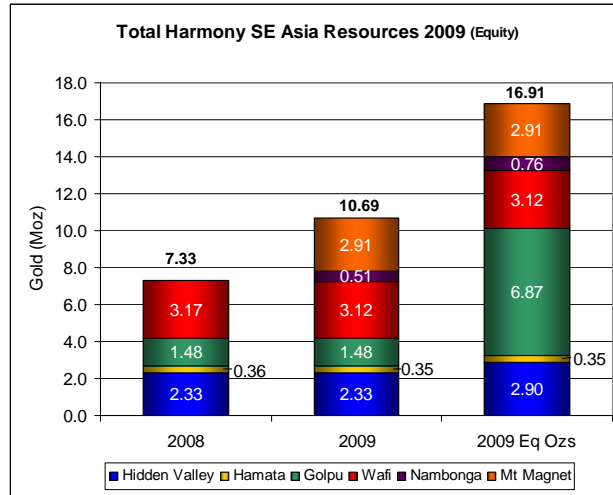
## Equivalent Oz Chart - Resources

2009 increase in Resource with discovery on porphyry copper Nambonga Deposit

Mt Magnet also re-included in statement.

Equivalent ounces factors in copper and molybdenum credit

Wafi - Golpu studies attempting to unlock value in region

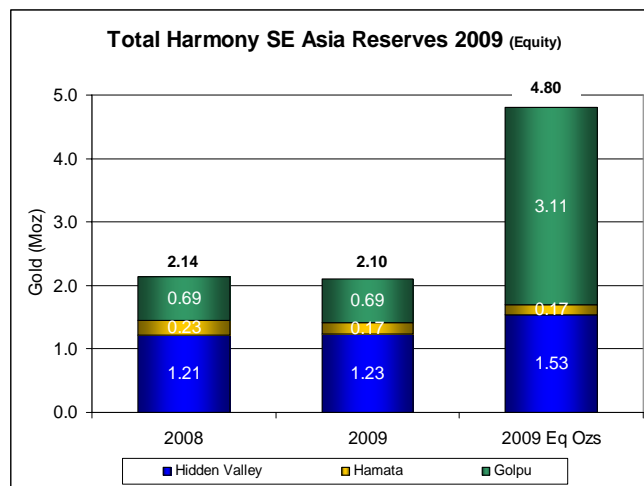


2008 Resource factored for current equity

## Equivalent Oz Chart - Reserves

Slight drop in Reserves due to mine design optimisation at Hidden Valley

Hidden Valley Expansion studies underway – will increase Reserve if successful



2008 Reserve factored for current equity

## Mt Magnet Project Study Update August 2009

### HISTORY

- Harmony purchased Mt Magnet Operations (MMG) in 2002 through the acquisition of Hill 50 Gold NL
- Located approx 600 km north of Perth, in town of Mt Magnet, WA
- On Care and Maintenance since Dec 07

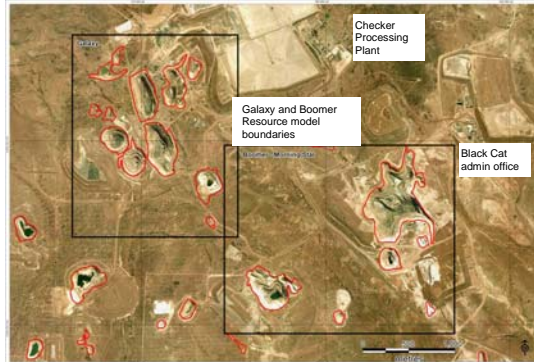
### RECENT WORK

- Current work looking at open pit conceptual studies over the Galaxy, Boomer areas, consolidating some historic smaller pits into a larger pit complex
- Initial Results (excl peripheral ore sources);
  - Ave. Production 130,000 – 150 000 oz pa
  - Total Cost US\$651/oz
  - Cash cost US\$ 550 / oz
  - Mine Life 5 years
  - Capital Study A\$42M + A\$4M
  - Potential first gold September 2010



View of the town of Mt Magnet with the Galaxy mines and Checker Plant in the background

- Consolidation of resources into large "super pit" type concept
- Larger open pit bulk mining will reduce costs over historic production costs
- Proposed 10 month study
- Initial study work will target resource and historic underground stope delineation
- Focus on improving cost per oz
- 5 month start up and pre strip
- First gold potential September 2010
- Higher grade areas can be targeted for quick payback (~18 months)



Scoping Study Resource Areas

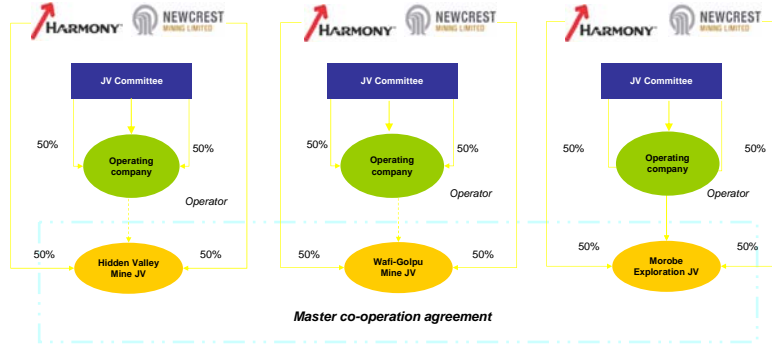
- Mt Magnet is an established producer with historic production of 5.3M ounces
- Site on full care and maintenance and requires short start up time. Care and maintenance cost approx A\$ 6 mil pa
- All infrastructure in place or available
- "Simple" open pit operation proposed
- Large Resource base for future expansion
- Areas to be targeted in study to improve ounce profile and reduce costs
  - Tails retreatment
  - Low Grade Stockpiles
  - Additional smaller open pits
  - Underground potential below Galaxy pit



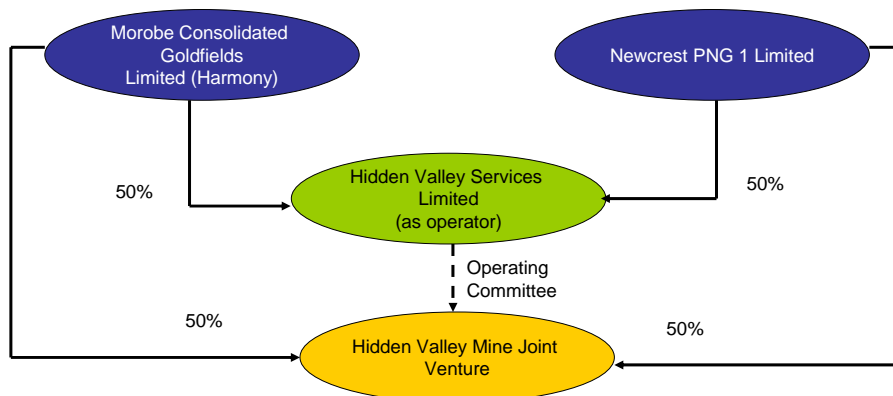
Checker Processing Plant – on care and maintenance

## Morobe Mining Joint Ventures (JV's with Newcrest earning 50%)

- Agreement based on unincorporated JV structure:
  - Each party directly owns assets and receives product from JV
  - Each party responsible for selling or marketing its own product
  - Operating company jointly owned by Newcrest and Harmony with controlling Operating Committee for administrative function of the new venture, with 50/50 representation on Operating Committee
  - Operating Committee reports to the Joint Venture Committee, also with 50/50 representation on Joint Venture Committee
  - General Manager reports to Operating Committee

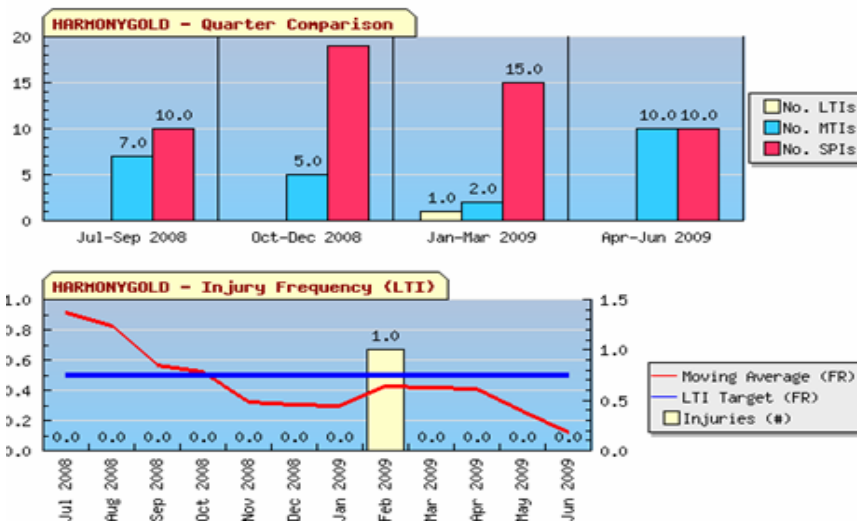


- The JV structures are driven by the concept of Joint Operatorship.
- Stage 1 (Purchase) Completion – occurred on 07.08.2008.
- Stage 2 (Farm In) Milestone – occurred 30.06.2009.
- The JV and Operating Committees comprise of equal Harmony and Newcrest representatives with equal voting rights. Total purchase consideration approx US\$ 525 mil to establish 50/50 JV.



## Hidden Valley Construction Status

## Safety performance



- Commissioning
  - Power station, grinding, gravity gold recovery sections commissioned late June - MMD and stackout Conveyor early July
  - CIL circuit commissioning middle of August
  - Overland Conveyor (OLC) commissioning date expected to be October
- Construction to complete
  - OLC civil works, gantry erection, belt installation, crushing stations
  - Non-critical infrastructure to be built in Q1/Q2 - warehouse, fixed plant workshop, security buildings, offices

- 300 mm diameter Pipe Conveyor
- Length = 5,364 m
- RL drop over 530 m, before rising to mill
- Design Capacity = 800 tph / Nominal Operating rate = 750 tph.
- SAG Mill at 130% of design, solely fed from HVK 750 tph.
- Design Earthquake loading = 0.26g  
(1 in 475 year annual probability level)





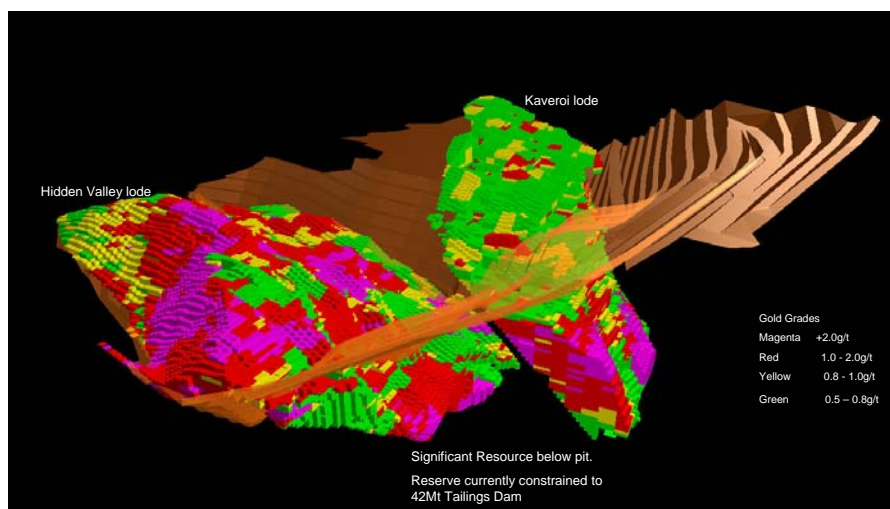
- Surge bin, sacrificial belt conveyor and large rock detector in place to ensure that maximum rock lump size does not exceed design capacity
- Surface water run off, micro piling to enhance stability, slope depressurisation to manage geotechnical risks

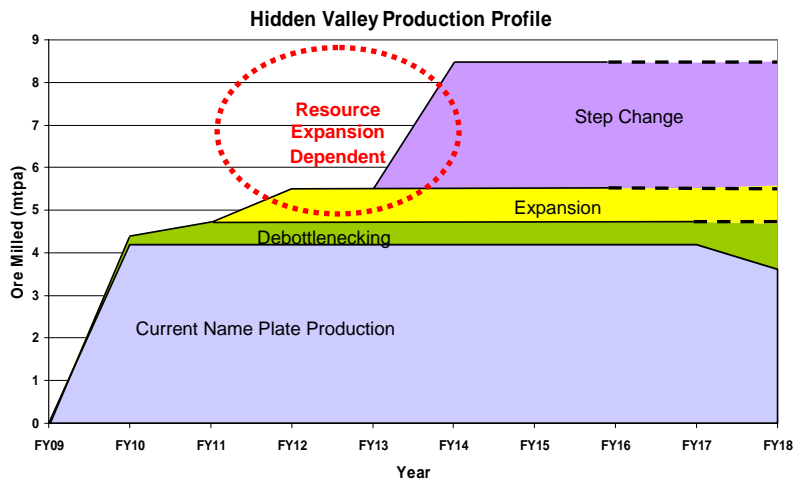


## HV Expansion Options

August 2009

- Pre-Concept Level study completed
- Objective was to identify and evaluate potential business cases for production of >400 000 ozs Au from Hidden Valley
- Stage phased approach considered:
  1. De-bottlenecking – to 4.7 Mtpa
  2. Expansion – to 5.5 Mtpa
  3. Step Change – 6 to 8.8 Mtpa (potential to yield 400k to 500k ozs)

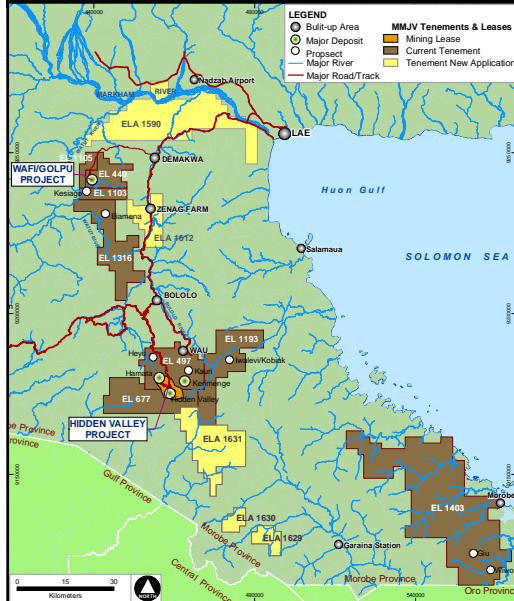




- Current nameplate 4.2 Mtpa
- De-bottlenecking target 4.7 Mtpa (+12%)
- Current resource development drilling program (strike and dip extensions) to support expansion
- Plant target constraints include: primary ore handling, gravity circuit, CIL inter-tank screens
- Mining constraint analysis
- Incremental TSF expansion options

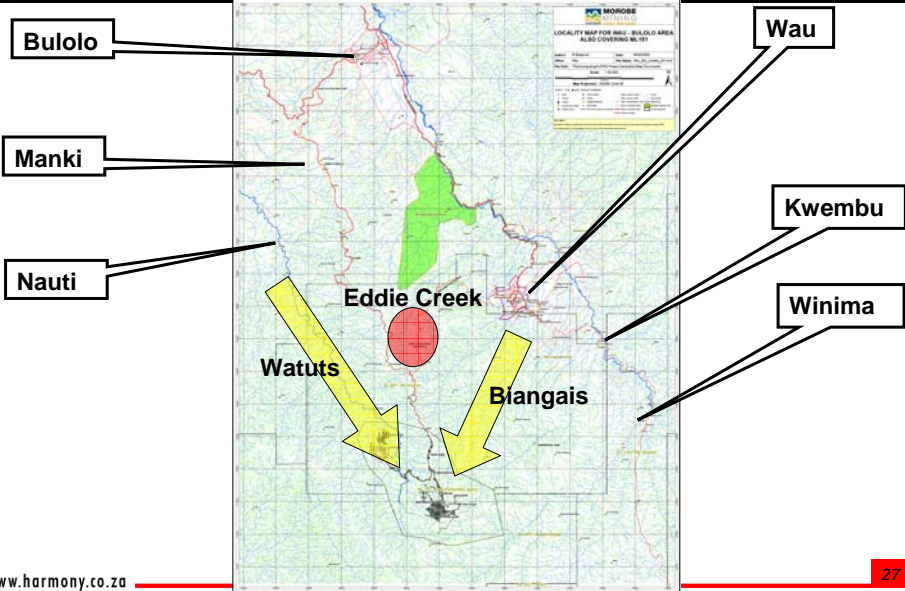
- Expansion target 5.5 Mtpa
- Timeframe 12 to 24 months
- Current resource development program to support expansion and possibly step change (the orebody will ultimately dictate)
- Expansion of Hamata process plant
- Revised mine plan based on pit expansion and increased mining rate
- Additional TSF and waste dump capacity

## Hidden Valley Operational overview



- Distance to Lae: 90 km
- Sealed road to Bulolo from Lae
- Hidden Valley pit at 2,700m
- Treatment plant at 2,040m

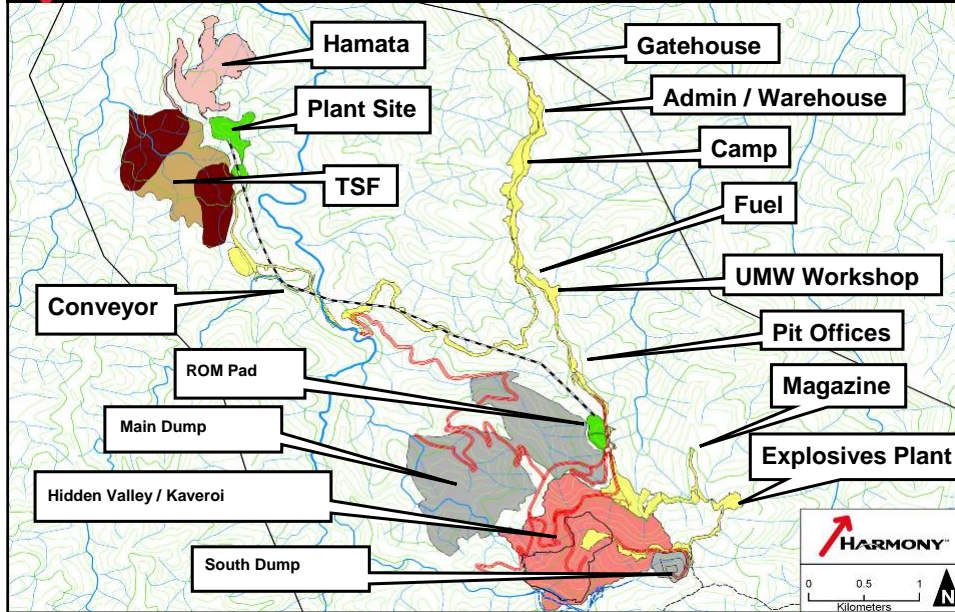
- At start-up most senior roles will be filled by expatriates, objective is to transition majority of senior roles to national employees
- Workforce of 800 employees plus contractors
- >50% of permanent employees are Landowners (Tier 1) or non-landowner local communities (Tier 2)
- Operational readiness programs and training in place
- Royalty distribution mechanism for landowners being established



- Memorandum of Agreement Compliance and review meetings
- Continuous Landowner engagement
- Continuous village liaison
- Community support
- Social monitoring



- Employment opportunities
- Training and development
- Supply and Procurement policy
- Business development through NKW landowner company
- Supportive government



- 2 Open pits, Hidden Valley / Kaveroi and Hamata
- Hidden Valley / Kaveroi contains 80% of gold reserves, 100% of silver reserves
- Hamata, smaller higher grade (2.5g/t) gold only pit next to plant site
- Pre-strip operations completed
- RC grade control drilling
- Selective mining on 3m benches by 180T and 80T excavators. 100T class truck fleet
- Owner operator
- Equipment maintenance under MARC contract by Komatsu PNG agent

- Stockpile of 1.3 mil tonnes @ 1.8 g/t gold available at start of continuous operation
- Mining focused on Hamata open pit until overland conveyor commissioned



Mill Feed Stockpile



- Single 11m diameter SAG mill
- Option of CIL or floatation process options with gravity circuit for enhanced Au recovery
- Au and Ag separated in onsite refining processes to optimise product transport security and cost.

- Ore is crushed at the pit crest (Hidden Valley and Hamata pits) then conveyed to the Plant
- Process flow sheet provides flexibility to treat full range of ore types found at Hidden Valley
- Tailings will be disposed in a fully engineered storage facility constructed in accordance with international dam safety code requirements



Piping and E&I works on CIL Tank Tops



- Estimated attributable gold production of 105 000 – 120 000 oz in 2010 financial year
- Attributable capital for project completion, development and sustaining capital of A\$ 60 mil expected during current financial year
- LOM cash costs US\$ 350 / oz net of silver credits

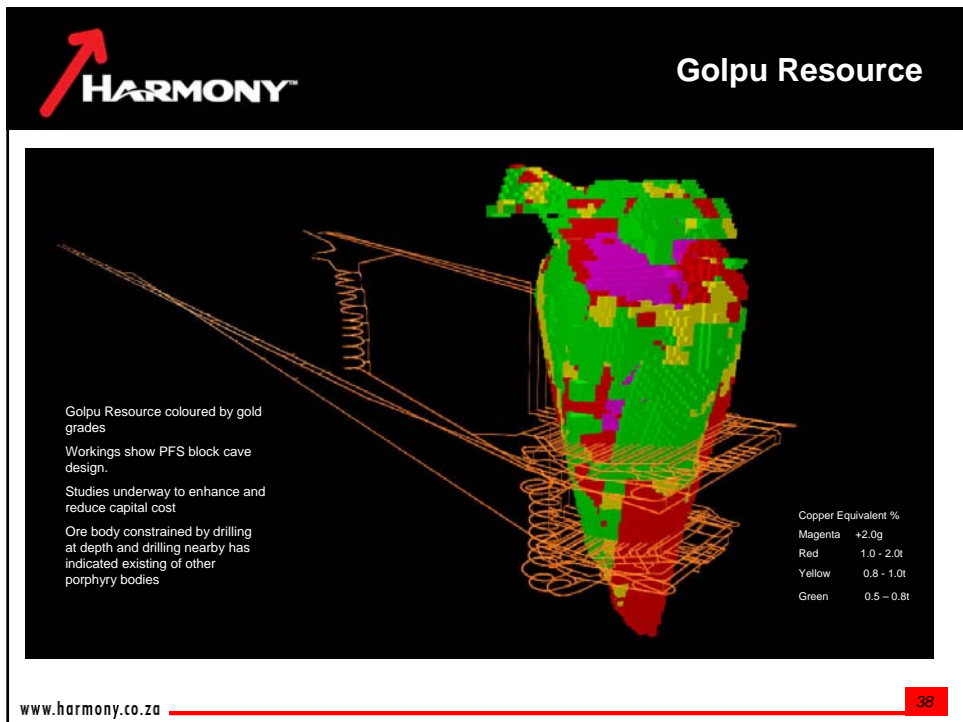
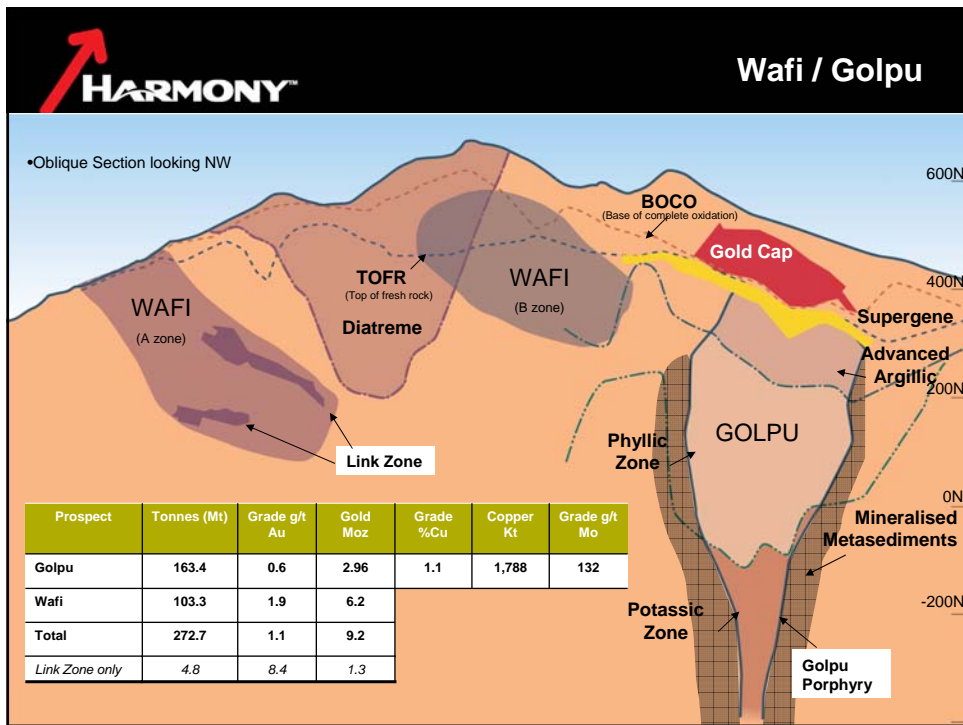


- AGR Matthey Ltd (AGR):
  - Partnership between WA Mint (The Perth Mint) and Australian Gold Alliance Pty Ltd and Johnson Matthey (Aust) Ltd
  - Located in Perth Western Australia
  - Product risk transfers to AGR at the Gold Room at the Plant
  - Gold transported by air
  - Silver shipped

- Royalty payable to PNG government      2% of Net smelter return
- 30% corporate tax rate
- Oil price assumptions (per barrel)
  - 09/10      US\$ 68 (Kina1.97/l, current Kina 1.78/l)
  - 10/11      US\$ 80
  - 11/12      US\$ 90
- Diesel vs Hydro price, impact A\$13mil – A\$ 15 mil per annum, hydropower expected to reach site towards end of 2010

## **Golpu Studies**

**August 2009**



- Objective - a project with lower capital cost and better NPV than the previous concept study
- "Simplify concepts, reduce capex and improve NPV"
- The concept includes:
  - A single lift Golpu block cave (optimum extraction level at -350 m RL)
  - Cost-efficient design and location for mine access, process plant, TSF and infrastructure
  - Synergistic open pit gold options for early development and cashflow
- The conceptual mine design is a significant departure from Golpu PFS scenario and viability will be tested against PFS study results

- Key assumption is that Golpu resource is constrained by a lack of deep drilling and that the lower resource cross-sectional area is larger than currently modelled
- Better definition of mineralisation between – 100 and -500 m RL is required to confirm lower elevation footprint area
- Potential benefits if mineralised zone extends to similar footprint as upper sections of deposit
- Conceptual study is expected to be completed in the September quarter
- Work program to be formulated based on study results

