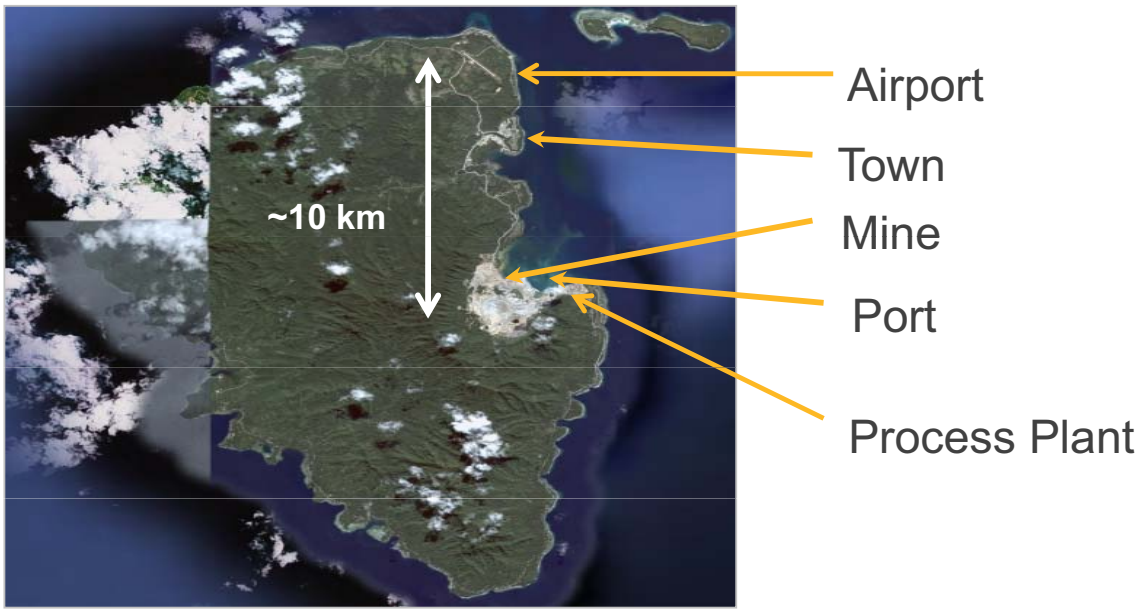
Lihir Island Operations

Noel Foley, EGM Lihir Island

Site overview

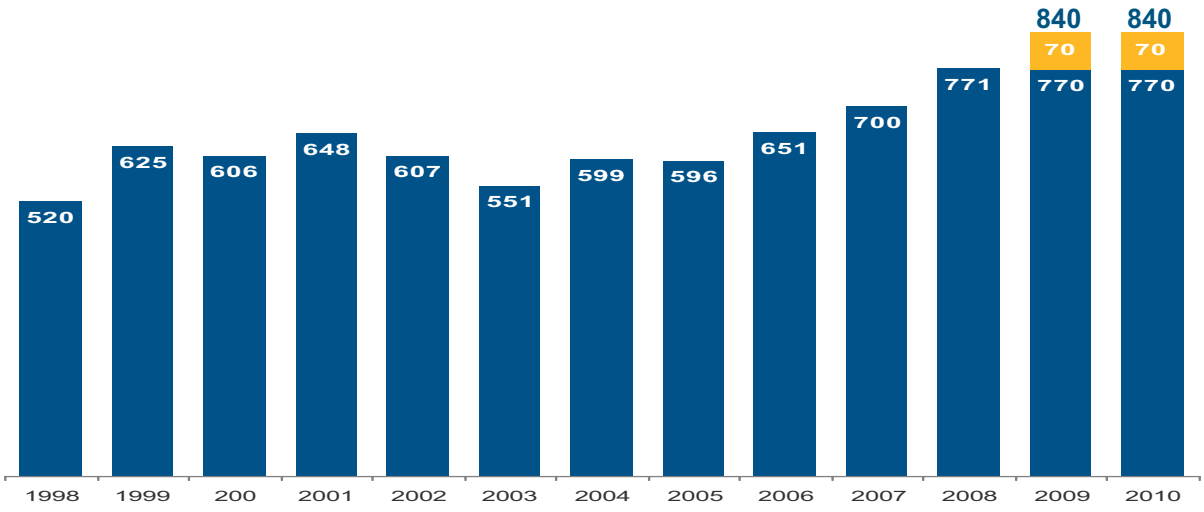


History of project

- 1982 – Exploration & development
- 1983 – Gold mineralisation identified
- 1995 – Lihir Gold Limited incorporated
- 1997 – Production commenced
- 2005 – Move to independent management of LGL
- 2007 – Flotation circuit commissioned
- 2008 – Million Ounce Plant Upgrade approved

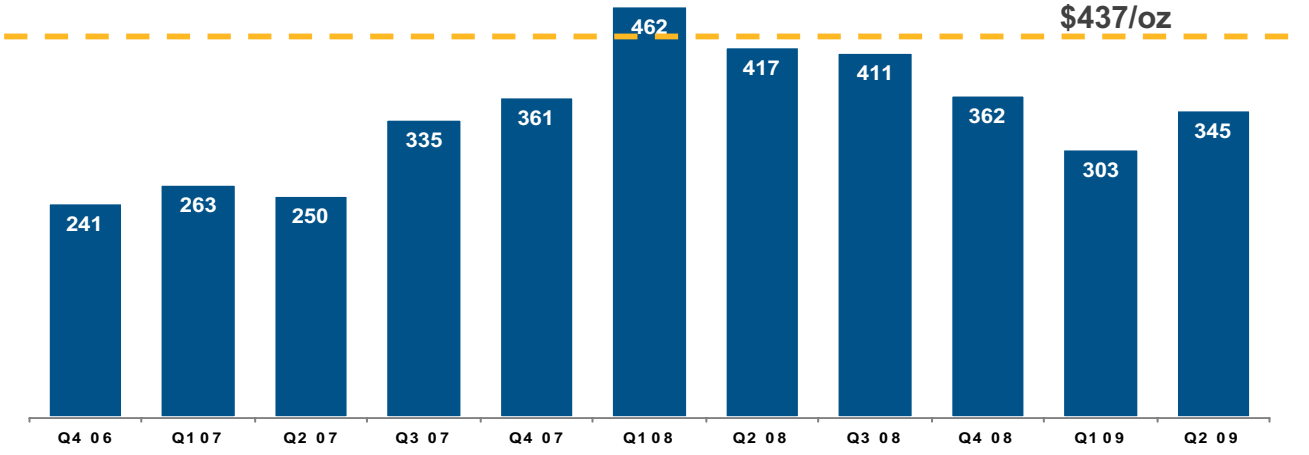
Record gold production

(Kozs)



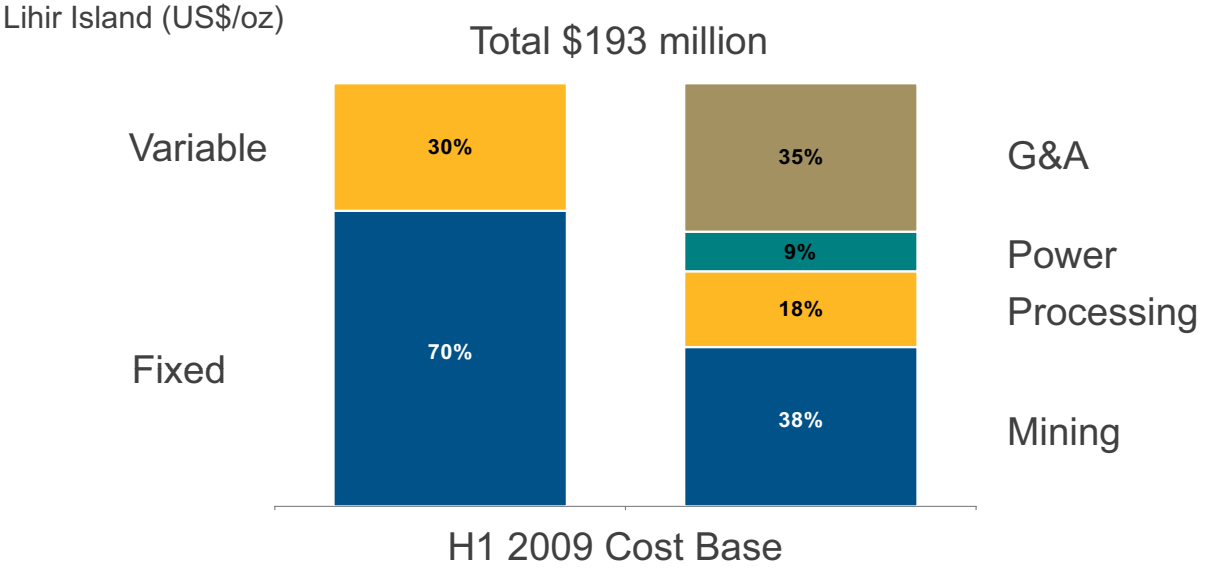
Low cost operation

Lihir Island (US$/oz)



Cost breakdown

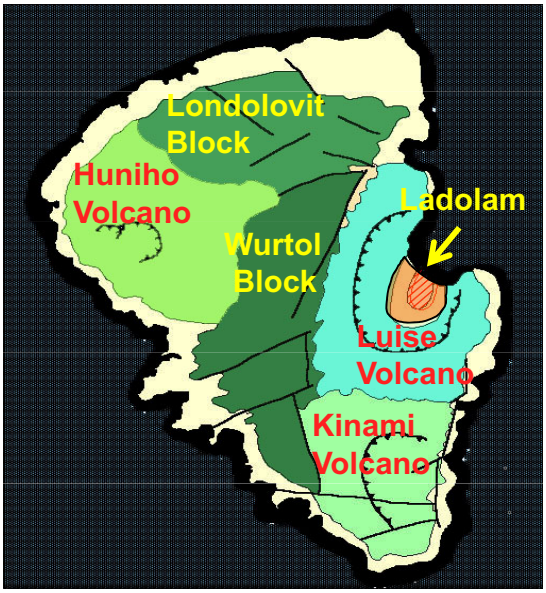
Lihir Island (US$/oz)



2. Geology & Exploration

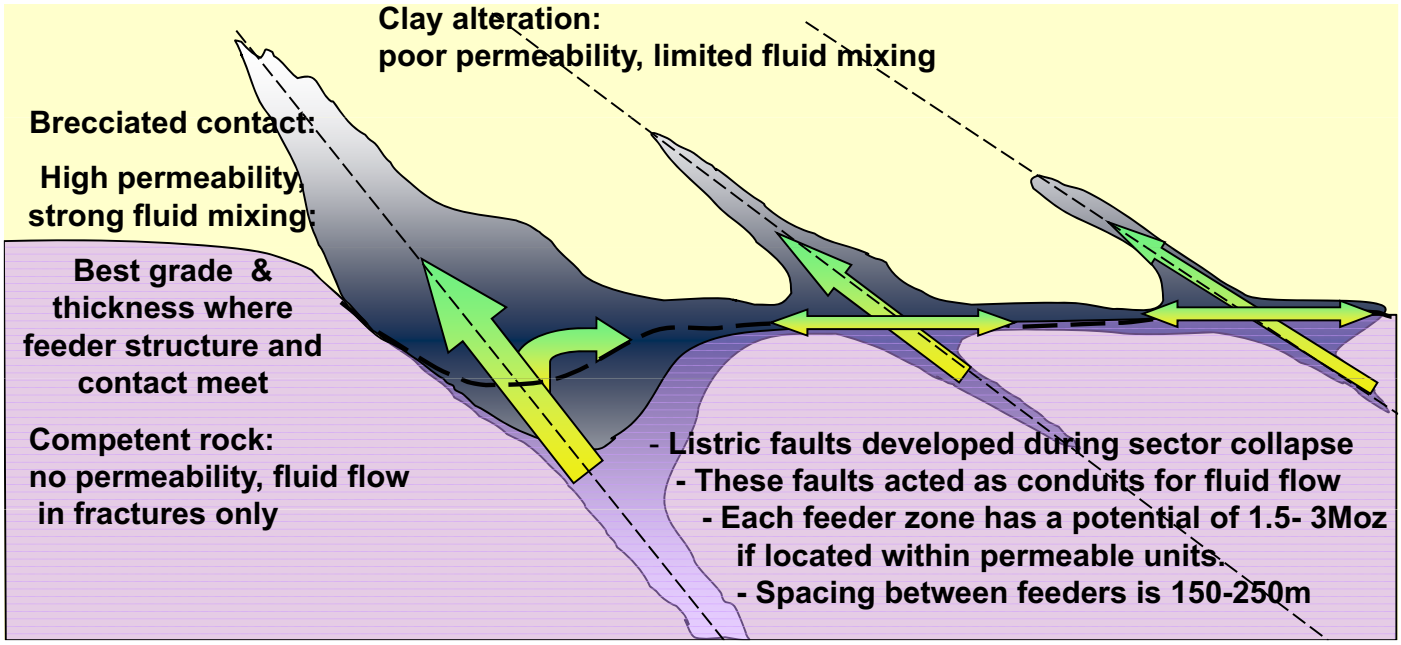
Roy Kidd, Principal Geologist

Lihir geology

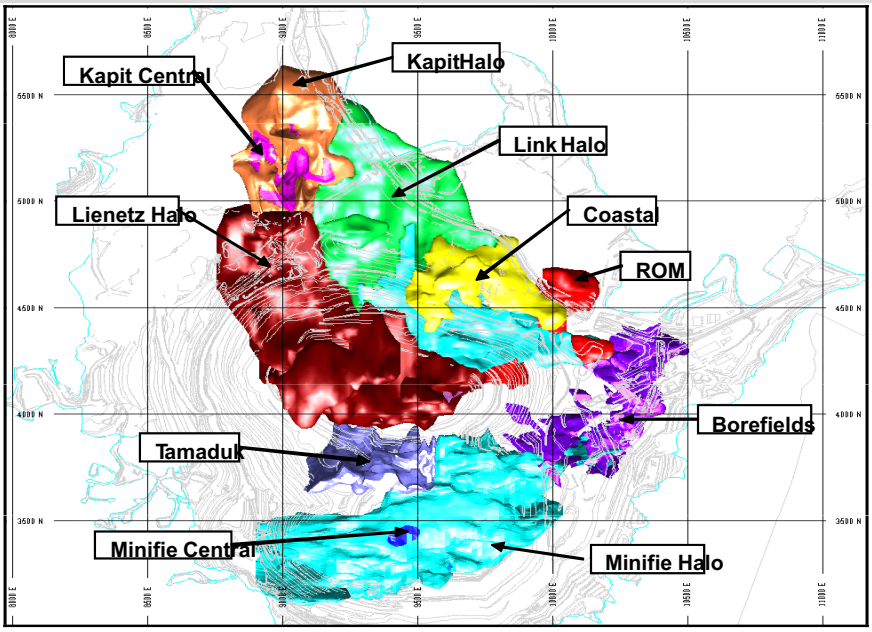


- Comprised of the remnants of five Miocene-Quaternary volcanic edifices.
- Composed of Si-undersaturated alkaline to intermediate, mafic trachybasalts and associated volcaniclastics.
- Huniho, Kinami and Luise volcanoes all had seaward directed sector collapses.
- Luise is the youngest volcano (~1Ma) and was comprised of alkali basalt & trachy-basaltic vesicular flows, and abundant blocky to sandy pyroclastic breccias and tuffs.
- Stocks of alkaline monzonite were intruded into the base of Luise volcano, at least up to sea level, between 0.9-0.4 Ma.

Model for gold deposition

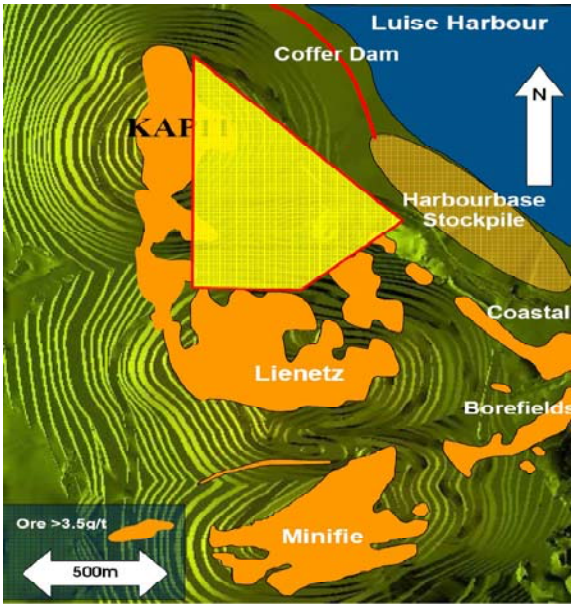


Lihir orebody – plan view

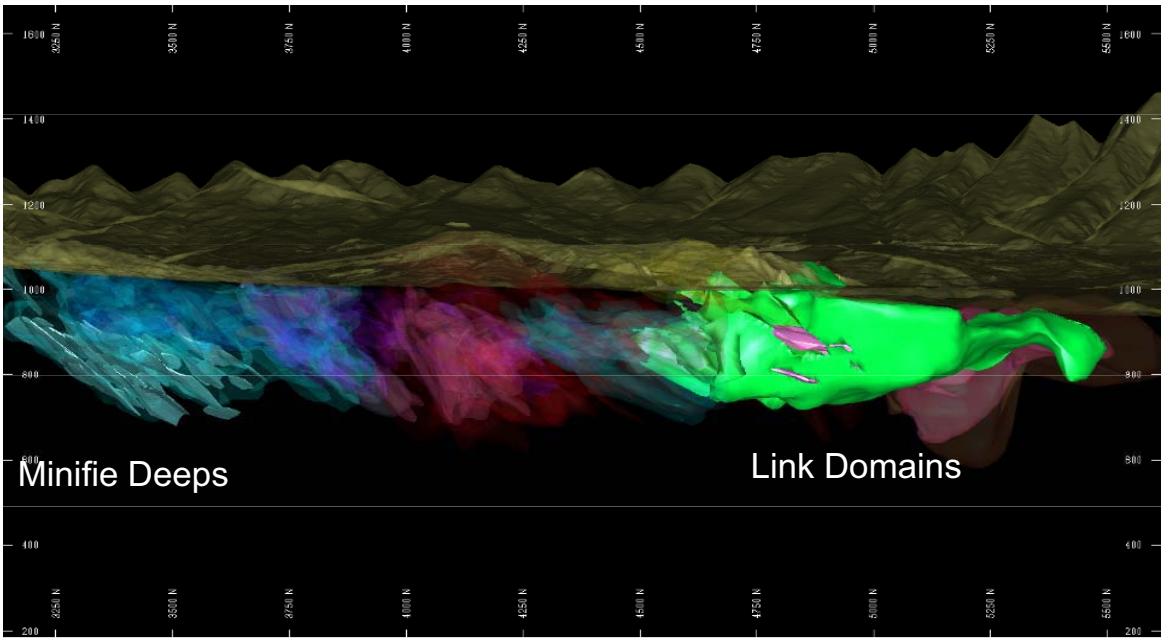


Link zone

- In late 2007 drilling commenced in the “Link” zone
- 18,675m of drilling completed by end of 2008.
- Results included for the first time in Aug 2009 resource estimate



2009 grade domains



Resources increased

In Situ Resources						
Lihir Island	**August 2009**			**December 31, 2008**		
	Tonnes (mt)	Average grade (Au g/t)	Contained ounces (mozs)	Tonnes (mt)	Average grade (Au g/t)	Contained ounces (mozs)
Measured	59.4	2.48	4.7	59.4	2.48	4.7
Indicated	494	2.41	38.3	324.7	2.71	28.2
TOTAL			**43.0**			**32.9**
Inferred	87.3	1.95	5.5	46.4	2.30	3.4

1) August 2009 update cut-off grade of 1.0 g/t. December 2008 cut-off grade of 1.20 g/t. Rounding, conforming to the JORC Code, may cause some computational discrepancies.
2) Stated resources numbers have not been adjusted to account for mining depletion during the period from December 2008 to August 2009.
3) The number of contained ounces does not indicate the ounces that will be ultimately recovered. The resources ultimately recovered and available for sale depends on whether, and to the degree which, mineral resources are converted to ore reserves.

Mining

Noel Foley, EGM Lihir Island

Mining cycle

Drill and Blast

Load and Haul

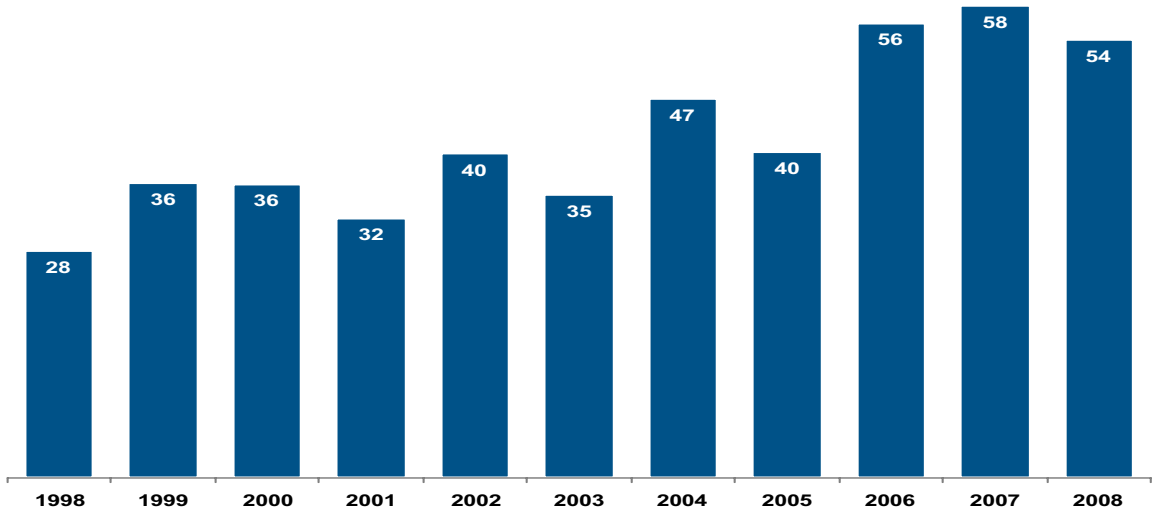
Process Plant

Barge (waste)

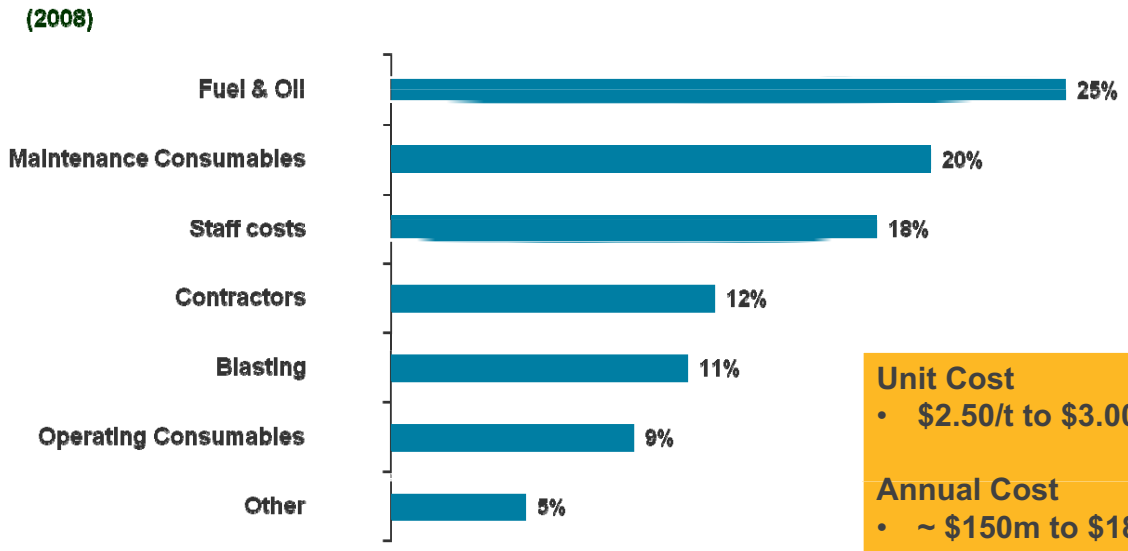
Stockpile (ore)

Mining production rising

(Material Movements, kt)



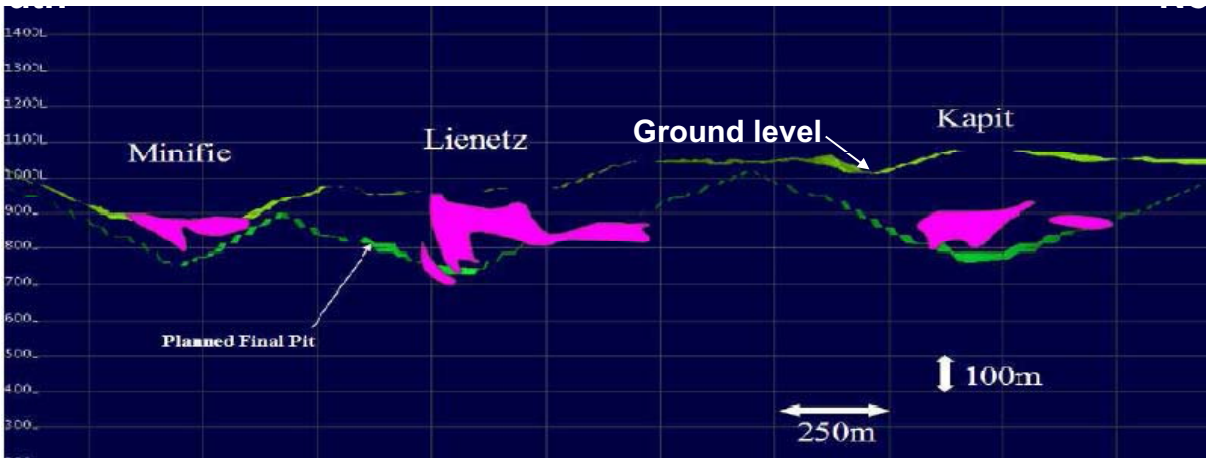
Mining cost profile



Unit Cost
- $2.50/t to $3.00/t

Annual Cost
- ~ $150m to $180m

Three main pits



Lihir - 21.8 Moz Reserve

Reserve as at 31 December 2008	Minifie	Lienetz	Kapit	Total
Total Material Movement Mt	85.9	218.0	316.6	620.6
Waste Mt	62.6	120.2	257.4	440.3
Ore Mt	23.3	97.8	59.3	180.3
Remaining Strip ratio	2.7	1.2	4.3	
Pit Strip Ratio	2.8	2.3	4.3	
Average Grade Au g/t	2.6	2.7	3.4	2.9
Average S %	6.2	3.7	6.2	4.8
Contained Ounces	2.0	8.5	6.5	17.0
Stockpiled Ounces				4.8
Total reserves (31 December 2008)				21.8

Reserves to be updated in 2009 following
10MOz resource increase announced August 2009

Mining focus

- Transition from Lienetz to Kapit
- Commence Kapit development
- Stockpile relocation
- Technical considerations – (depressurisation, dewatering, coffer dam)

Processing

Alasdair Noble, Manager Process Operations

Processing history & background

- Process Plant commissioned 1997 (capacity 2.8 Mt pa)
- Elevated cut off grade strategy
  - High grade ore processed
  - Lower grade ore stockpiled
- Original plant design allowed for expansion

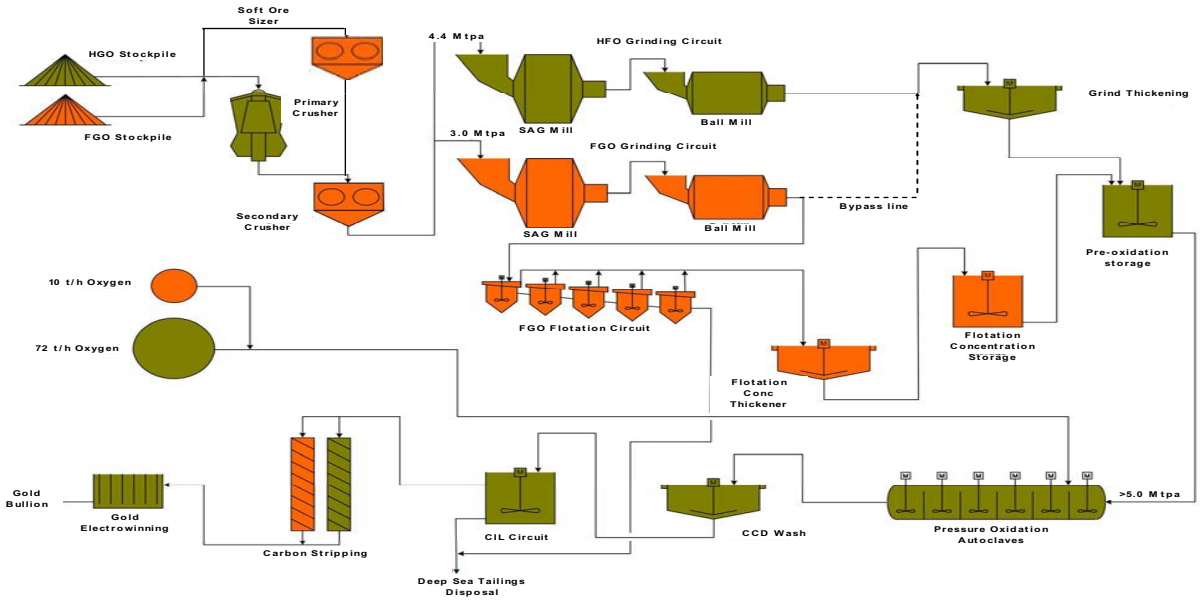
Processing history & background

- Gold is locked within pyrite
  - Direct cyanidation - only 30% gold recovered
  - Greater than 90% contained pyrite needs to be oxidised
- Sherritt-Gordon whole ore pressure oxidation technology
  - High temperature, high pressure process with addition of pure oxygen - 205°C, 2650 kPa
  - Exothermic reaction (generates heat)
  - Pyrite oxidises to ferrous sulphate

Processing history & background

- Flotation circuit commissioned 2007
- Allows processing of lower sulphur grade ore
- Ability to target optimum sulphur grades for autoclaves
- Additional milling capacity
- Improved operational flexibility

Processing flow sheet



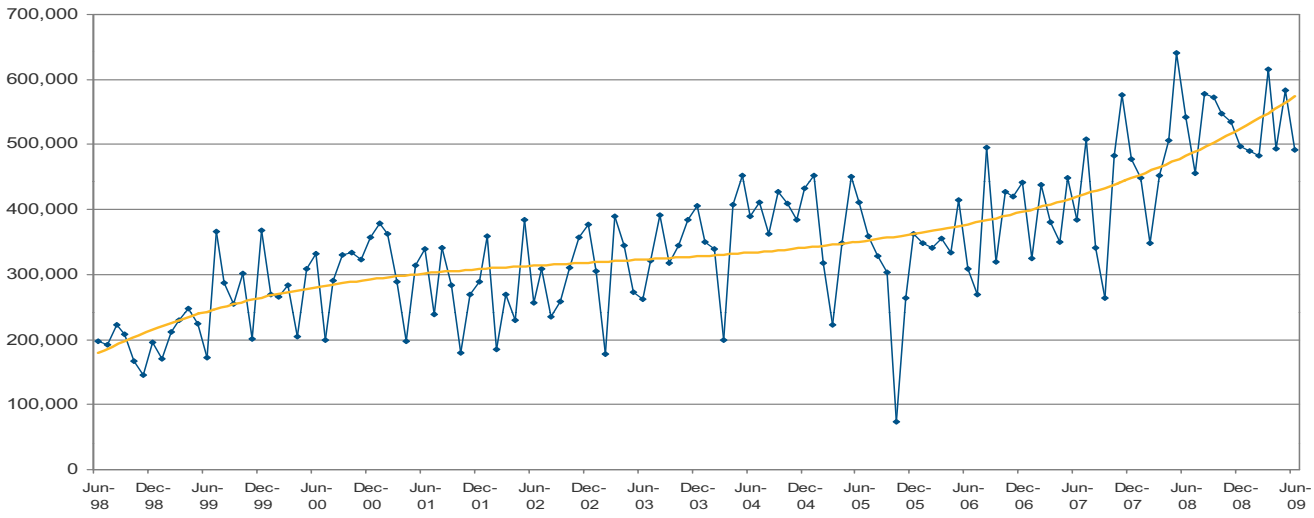
Operational improvement

Focus on two areas:

- Removing Constraints
  - Maximising utilisation of high capital items – Autoclaves and Oxygen Plants
  - Crushing Capacity / Pebble Crushers / CIL / Elution
- Optimising Autoclaves
  - Blending strategies
  - Heat recovery
  - Quench capacity

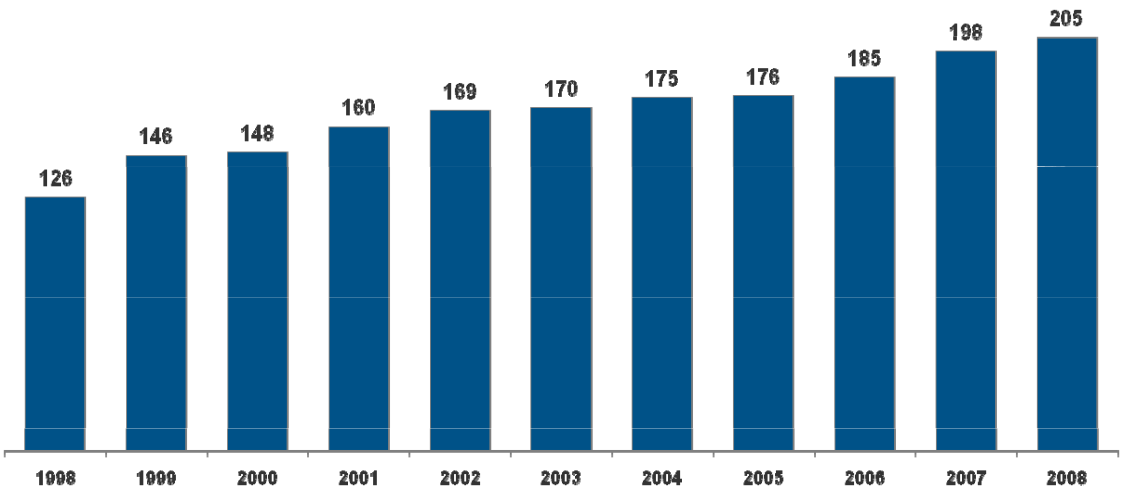
Crusher throughputs rising

(Monthly, tonnes)

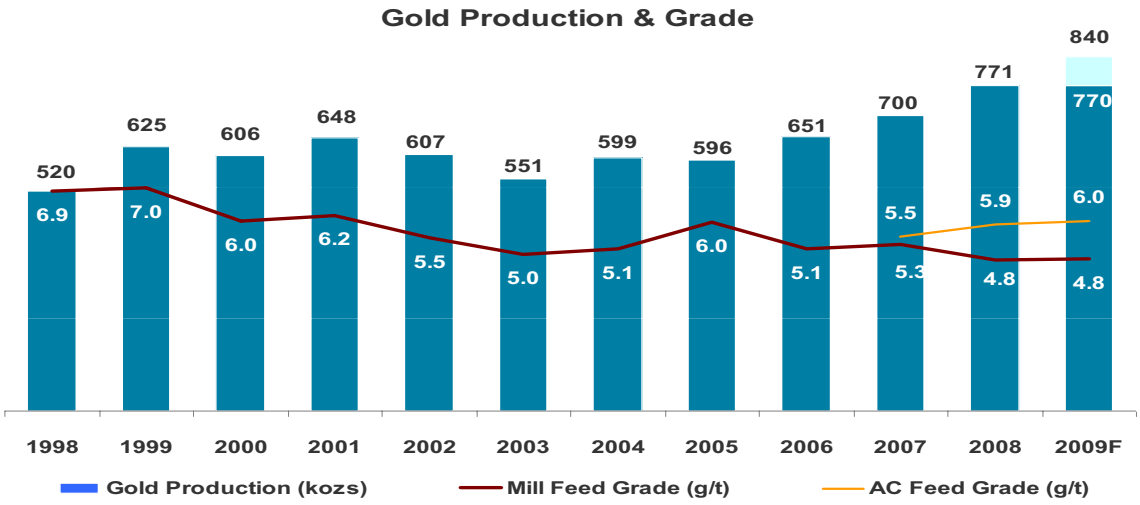


Autoclave throughputs rising

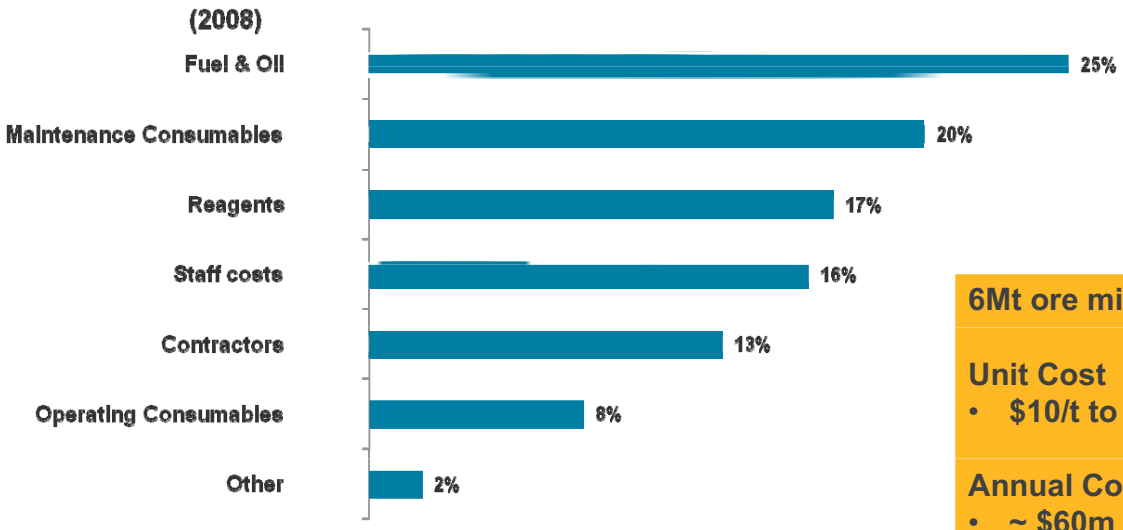
(Tonnes/op hr/autoclave)



Impact of improvements and flotation



Processing cost profile



6Mt ore milled pa

Unit Cost
- **$10/t to $13/t**

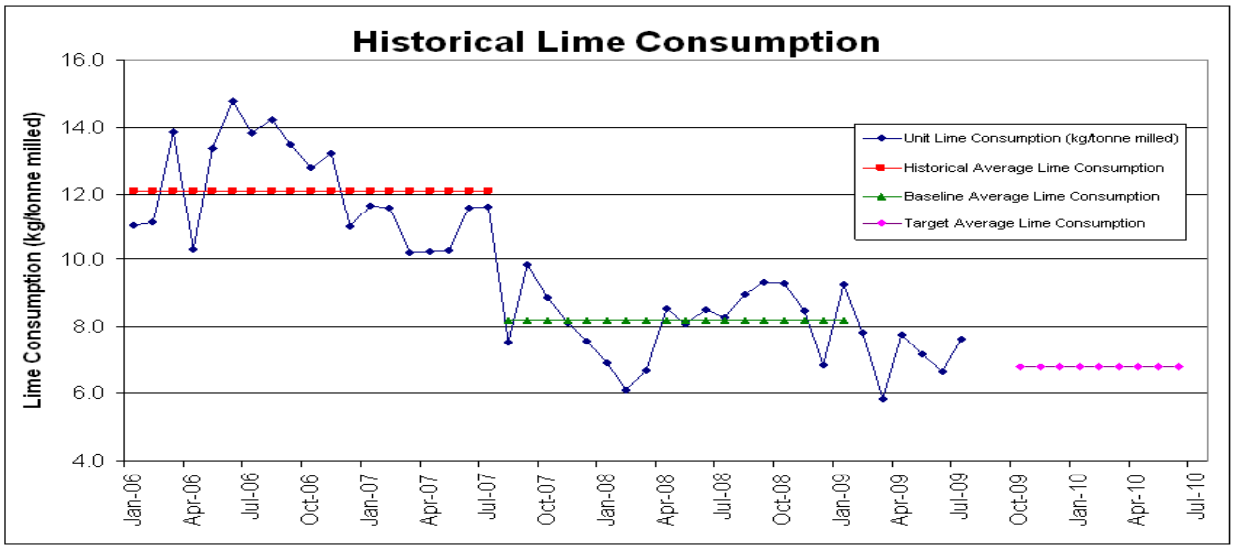
Annual Cost
- **~ $60m to $80m**

Cost improvement

Cost Control – example lime

- 3rd stage of CCD thickening
- Improved control
- Formal continuous improvement project
- Significant savings realised
- Expand focus to other reagents

Cost saving initiatives



Geothermal power

Geothermally Active

Steam Wells

Separators

Silencers

Steam

Power station
(steam turbines & cooling tower)

Electricity for Lihir Operations

Processing summary

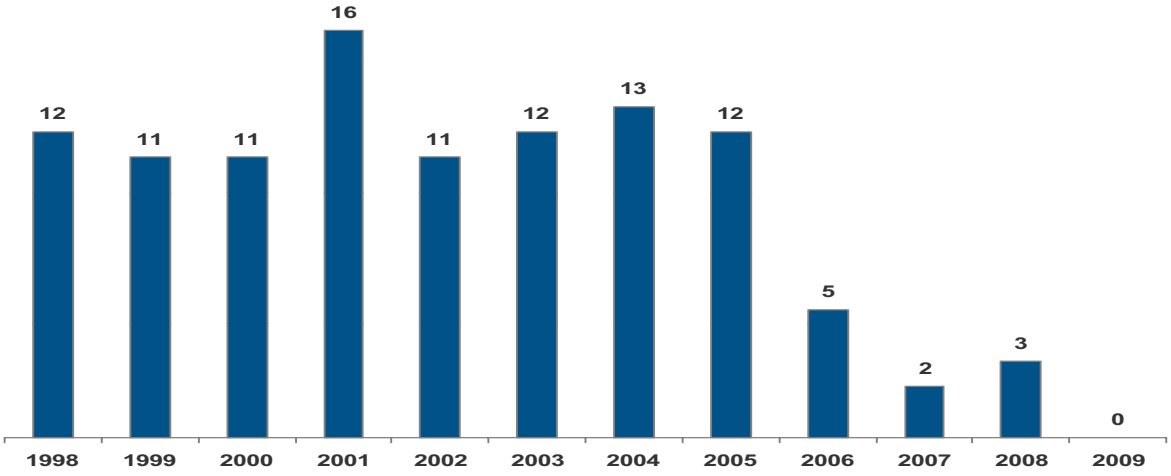
- Operational and efficiency gains being realised
- Flotation fully operational and adding value
- Geothermal Power - continues to benefit processing cost
- MOPU – will increase production, flexibility and redundancy

Safety, Environment & Community

Noel Foley, EGM Lihir Island

Excellent safety record

(Lost Time Injuries)



400 days LTI free on 28 July 2009

Environment & Community

Community

- Build trust by delivering on commitments
- Proactively work with community to meet their goals
- Lihir Sustainable Development Plan
- Align interests where possible

Environment

- Environmental impacts closely monitored
- No serious environmental incidents in more than 3 years

Questions