Cadia Valley Operations

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Agenda

- Description of operations
- Performance
- Outlook
Cadia Valley Location Map
CVO Site Overview

- **Red**: Newcrest Owned Land
- **Green**: Operational Area
- **Yellow**: Mining Lease
History & Highlights

- Newcrest acquired lease 1991

- Exploration Discoveries
  - Cadia Hill 1992
  - Ridgeway 1996
  - Cadia East 1994

- Cadia Hill commissioned in 1998

- Ridgeway commissioned in 2002

- World class mineral province

- Security of tenure
  - Freehold land, no native title issues

- Motivated and Committed Workforce
  - Low turnover rate (<9%pa)
Description of Operation

- Porphyry gold / copper mineralisation
- Two operating mines
  - Cadia Hill open pit (17Mtpa ore)
  - Ridgeway underground (5.6Mtpa ore)
- Ore Processing Complex Treating 23Mtpa
  - Conventional flotation circuit
  - Producing gold/copper concentrate and gold bullion
- Open pit & underground both owner mining operations
- Contractors used for
  - Open Cut Mobile Fleet Maintenance
  - Project Engineering Management
  - Construction of Ridgeway Deeps
Permitting

- All properties affected by mining leases are owned by Newcrest
- Significant buffer zones have been acquired to the west and south west
- CE exploration declines approved and progressing
Community / Environment

- Community and Environment are integral and embedded in the way we work

- NSW Minerals Council major award winners for Community Relations Strategy
  - Winner – NSW Minerals Council 2007 Excellence Award (Community)
  - Winner – NSW Minerals Council 2007 Excellence Award (People’s Choice)
Ridgeway Deeps Block Cave

Cadia East Panel Cave

Ridgeway Sublevel Cave

Cadia Hill

Resource of 83 million gold equivalent ounces

(Approximation calculated at Gold: US$600 per ounce; Copper: US$1.70 per pound)
Geology

- Volcanic sequence of rocks hosting Porphyry gold - copper systems related to intrusive events 420 million years ago

- 6th largest known gold rich porphyry system in the world (ranks as a 'Giant' porphyry deposit ~2.5 Billion tonnes)

- 5 deposits discovered to date lie within a 6km long mineralised corridor which remains open at depth and along strike to the east

- Gold, copper and molybdenum are associated with quartz veining, as fine disseminations and rarely with massive sulphide

- To date only bulk mining methods employed to best match scale of the ore system
Cadia Hill Open Pit Mining

- Owner operated fleet
  - Conventional truck/shovel operation
  - Modular mining dispatch system

- Drill & Blast 15 metre benches
  - Contract bulk explosives (Dyno)
  - Conventional grade control – BH sampling

- Open pit fleet
  - 17 Caterpillar 793 Haul Trucks
  - Komatsu – 2 face shovels and 2 loaders
  - 3 Drill rigs
  - 1 Excavator
  - Other ancillary equipment
Ridgeway underground mine

- Blind transverse sub level cave
- Large ore body footprint
- Sublevels are located at 30m intervals and cross cuts at 14m apart
- Mining between 850-950m below the surface
- Opening up block cave at 1200m below surface
- Mine has 14 sublevels and currently mining last 3 levels with mining to be completed by February 2010
- Ore pass system to transfer level and gyrator crusher
- Owner mining fleet with 5 trucks
Ridgeway Mine Production Flow
Processing facility

- CVO has 2 ore treatment plants
  - Cadia Hill plant 17Mtpa
  - Ridgeway plant 5.8Mtpa
Ore Treatment

Cadia Hill Concentrator is a success story including a single line process with one of the biggest SAG mills in the world measuring 12.2m x 6.1m, processing 2130t/h feed and a 20MW motor.
Infrastructure

- **Power**
  - Sourced from NSW electricity grid
  - CVO currently uses around 600 GWH of electricity / annum
  - One of NSW largest power consumers
  - Long term power contract which ends in 2010

- **Tailings Dam**
  - Tailings Dams increased storage by upstream wall lifts

- **Water**
  - 2 key water storage facilities
  - Cadiangullong Dam @40% capacity (1696ML)
  - Rodds Creek Dam @ 68% capacity (2529ML)
  - Total on site storage at 53%

Alternative (Solar, Biomass)  
Electrical Network  
Gas Power Station  
Wind Generation

CVO  
**Power Options**
Water Position for CVO

- Current Water Sources
  - Cadiangullong Dam
  - Rodds Creek Dam
  - Tailings Dam
  - Orange Effluent approximately 10ML/day
  - Blayney Return approximately 2ML/day
  - On site bores

- Surface water licences
  - Total extraction licences - 11,405 ML/annum

- Orange City Council effluent agreement
  - Agreement provides for up to 13ML/day (4,745 ML/annum)

- Make-up water requirement is 20 mega litres per day of which 10 mega litres is supplied by effluent
- With current capacity there is sufficient water to operate for over 12 months (assuming no further rainfall)
- Strategies being implemented to ensure long term water security
  - Increasing capacity of Rodd's Creek dam
  - Improving usage of recycled water
  - Improved harvesting of licensed water
Key achievements over last year

- Key production records
  - 07/08 Record CVO gold production of 715,587oz *(previously 690,552 in 04/05)*
  - 07/08 Record Cadia Hill gold production of 414,169oz *(previously 327,620 in 99/00)*
  - Cadia Hill Recovery at 82.1% *(previously 79.6% in 06/07)*
  - CVO milled 22,567,944t *(previous 22,496,245 in 03/04)*

- Other key achievements
  - Tyre life has increased by 45% since 2005/06
  - Throughput improvements (low pressure water pumps, mobile crushing plant)
  - Efficiency improvements (utilisation and maintenance) of open pit fleet
  - Reduce engine truck change out time
Business Improvement Initiatives

- Successes – Projects completed in 2007/08
  - Stockpile management to reduce mill feed variation
  - Install mobile crushing plant to increase throughput in LG mill (by processing RWY ore)
  - Match shutdown maintenance activities duration to reline duration
  - Increase mill throughput by optimising low pressure water pumps
  - Increase truck speed in Open pit mine
  - Reduce engine truck change out time
Exploration Potential

- Actively exploring on and around the Mining Lease
- New approach to be adopted with 3D Global modelling
- Re-assessing areas with view to discover 'different' style deposits
- Consider overall discovery potential to be high
- Recent recognition of new, previously unconsidered terrain a revelation
- Focus on immediate CVO district and Marsden only
Key Targets or Priorities over next 5 years

- Smooth transition from SLC to block cave
- Smooth transition from Cadia Hill Open Pit to Cadia East Panel Cave
- Increase throughput 24mtpa – 27mtpa – 32mtpa
- Improved equipment and plant OEE
- Cost reduction through bulk mining
  - Mining methods
  - Technology
Summary

- World class mineral province
- Very good long-term prospects
  - 30 years plus mine life
  - Exploration and resource expansion opportunities
- Committed and Motivated workforce
- Strong community support
- CVO here for the long haul