## **Welcome to Goonyella Riverside Mine**





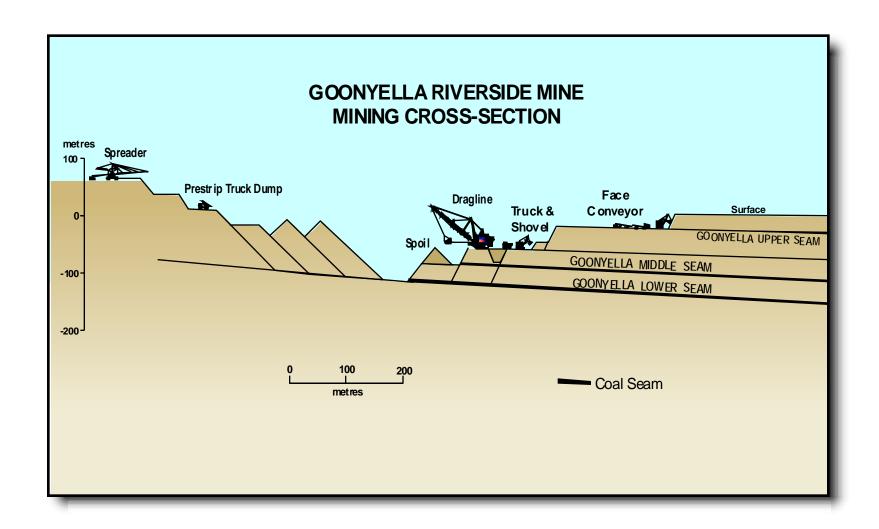






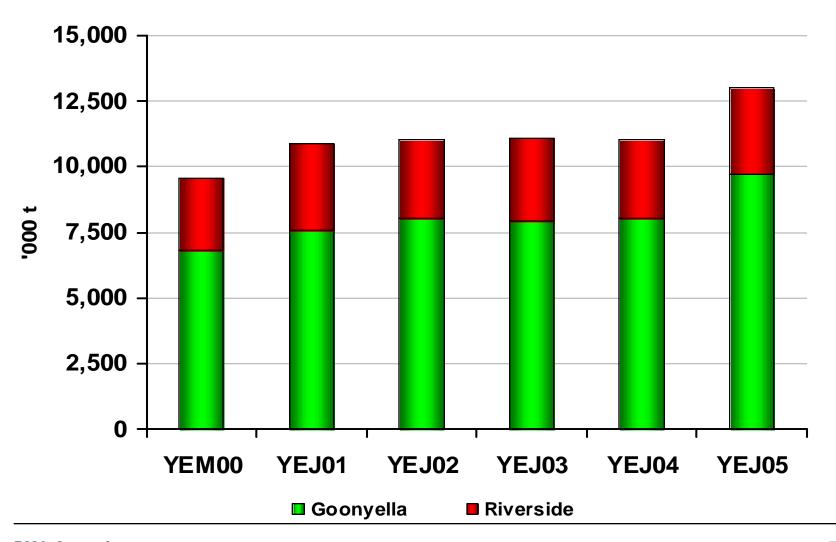
## **Typical Cross-section of Mine**





## **Annual Production FY00 to FY05**

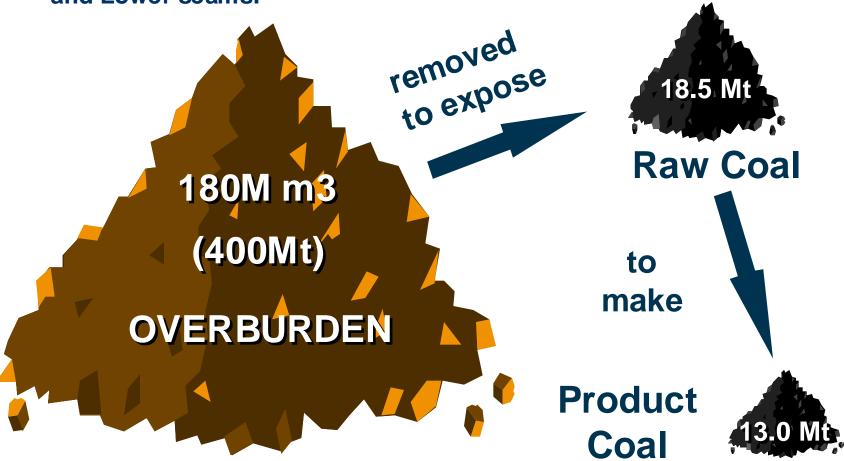




# **Annual Open Cut Quantities**



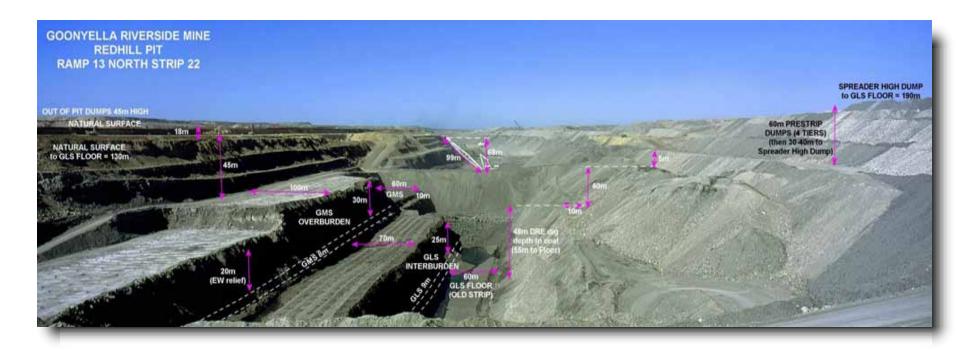
 Open cut strip mine designed to extract Goonyella Upper, Middle and Lower seams.



#### **Overburden Removal**



- Overburden depths presently range from about 70 to 150 metres
- Process Top soil → Prestrip → Draglines → Coal Mining
- Combined average over 1 million tonnes of material movement per day



### **Drill and Blast**



#### **Drilling**

3 x DrillTech D90K (BMA)

1 x Svedala SKS (Contract)

1200 km/year



Blasting 100 Mbcm/year 38,000 t explosives/year

## **Overburden Removal - Prestrip**



- Where required, overburden is removed by prestrip equipment
  - SHE/MMD sizer and conveyor system 10,000 t/h
  - 4 electric rope shovels P&H 2800 & 4100A & 4100XPB shovels



### **Truck Shovel Fleet**





# **Draglines**





# **Coal Mining**



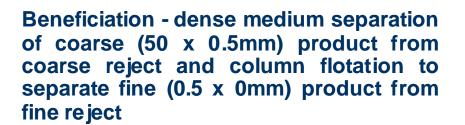


# **Coal Preparation**



Raw coal is blended and processed by the coal preparation plants (CPP)

Coal is crushed to - 50mm



Quality is monitored at all stages to ensure products are consistently "on spec."

# **Goonyella Expansion**



## **Open Cut**

- Contract pre-strip
- New mining equipment including Cat 797B trucks

### **Punch Longwall**

- Broadmeadow under development
- Q1 FY06 start-up

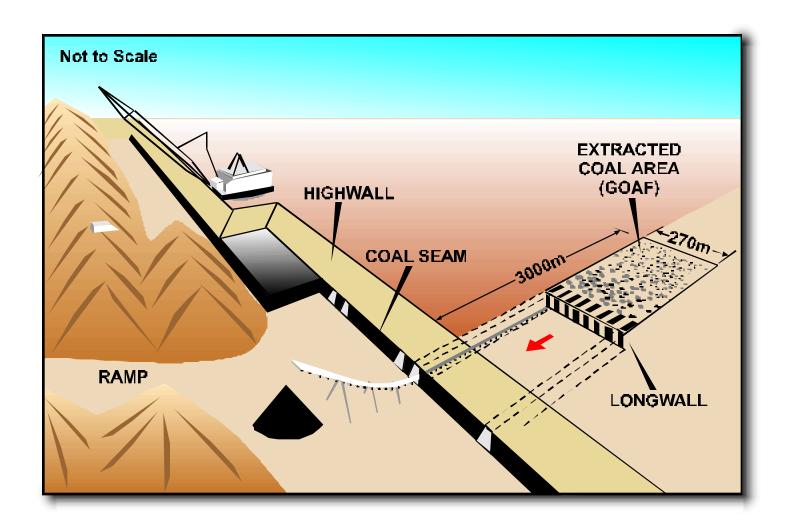
## **New Cat 797B Haul Trucks**





# Broadmeadow Punch Longwall Schematic





# **Broadmeadow Longwall Shearer**









#### Safety, Environment and Community



#### **SAFETY** Drive for Zero Harm

- Very High Safety Performance
   Previously achieved 2 year LTI Free and over 500 days CI Free
- NOSA Safety Excellence Award in 2001, finalists in 2003 "MINEX" Safety Awards

#### **ENVIRONMENT**

- Extensive Dust and Noise Monitoring and Minimisation Programs
- World Class Water management program
- Six Monthly Community Environmental Audit of the terminal
- ISO14001 Accreditation (the first coal loading port in Australia)
- EPA Clean Beach "Beach Spirit Award" for 2 successive years

#### **COMMUNITY**

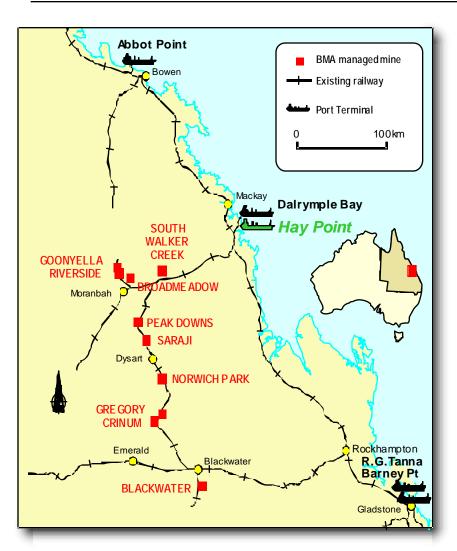
- Celebrated 30 years of operation on 5 November 2001
- Integral part of the local community, contributor to local projects



# **BMA Coal Logistics Chain**



30tre



## **Shipped Tonnages (Mt)**

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BMA owned port	FY04	FY05
Hay Point	33.9	25.6

#### **Common User Facilities**

50.2	39.5
1.1	0.5
12.8	10.5
2.4	2.9
	12.8

Domestic Sales 2.4 1.7



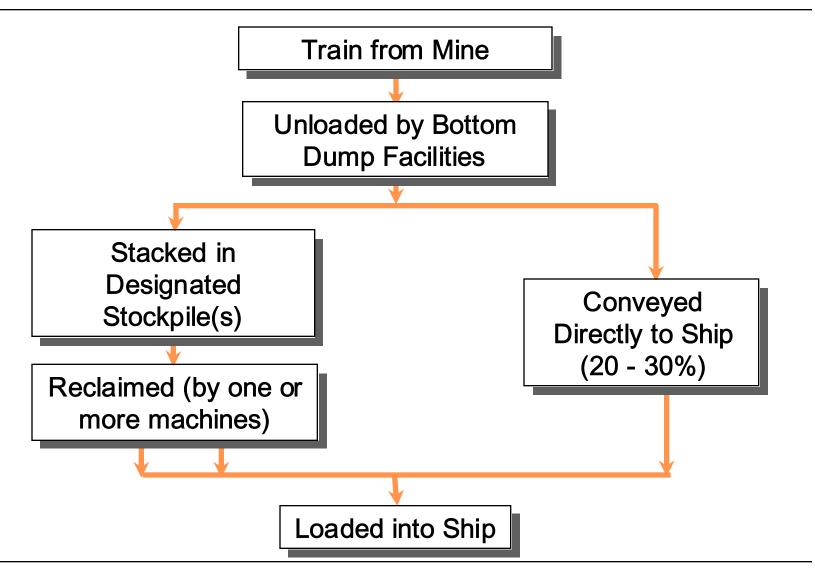
## **Site Schematic**





# **Coal Handling Process**





# **Blending and Quality Control**

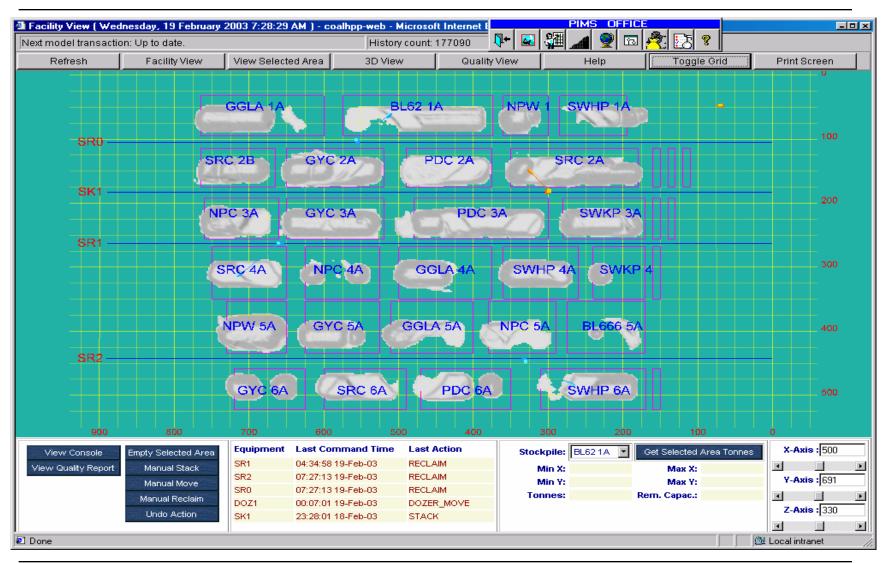


- Very flexible operation. Currently about 25 30% of shipments are blends of two or more coal types
- Port quality system certified to AS/NZS ISO 9001:2000
- Electronic links and daily phone communication between mines, port and marketing for managing production and quality issues
- Train quality results available electronically before the coal arrives at the port
- "Coal Tracking" system developed to monitor and control quality through the terminal – World's first system, BMA developed and own the IP



## **Coal Tracking System - Yard View**





# **Coal Tracking System**



#### **Business benefits:**

- High level of traceability from train to stockpile to ship.
- Definitive action on non-conforming product
- Selective reclaim plans can be set to consistently allow the target specification to be met
- Virtual elimination of penalties. (Only 3 shipments out of 762 incurred penalties in FY'04. All were only 0.1% above specification.)

#### **Customer benefits:**

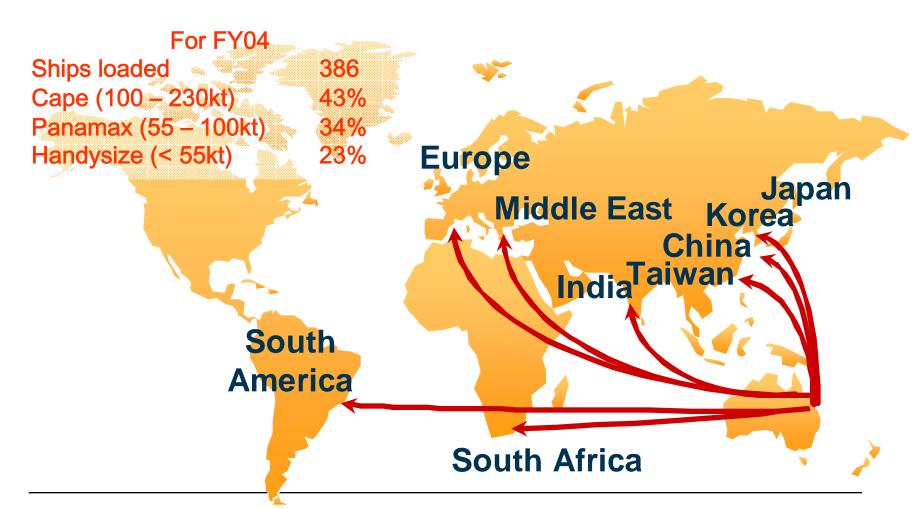
- Product that always meets Customer's specifications (reliability)
- Tighter quality control and reduced variability in coal quality



# **Cargo Destinations**



#### **Over 78 Customers 28 Countries**







#### % Change from Base Year

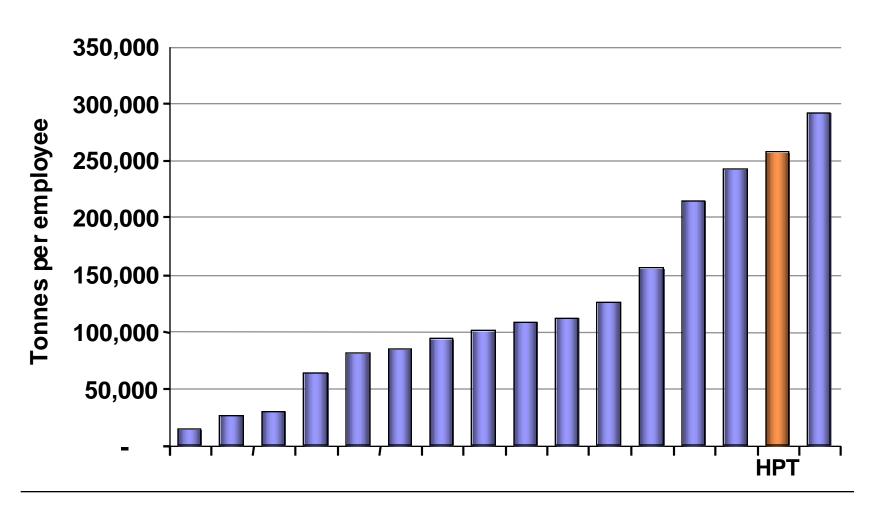




# **Hay Point Productivity**



#### **HPT** productivity in top quartile

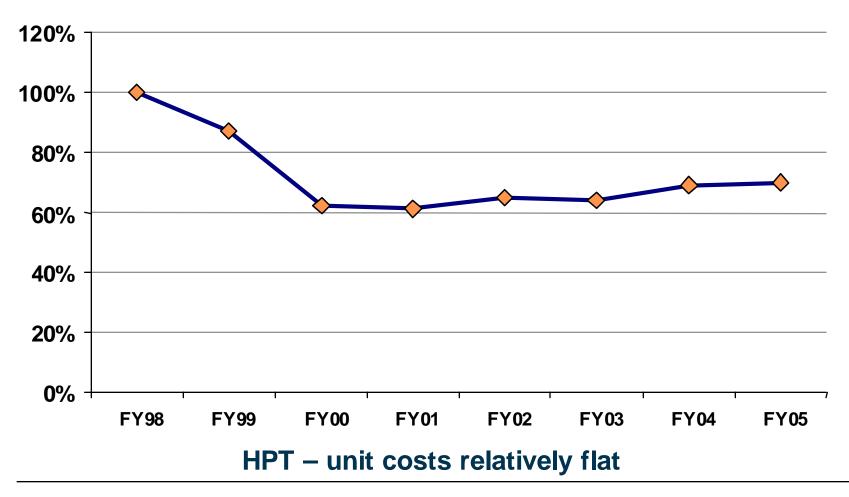




## **Controllable Unit Costs**



#### % Change from Base Year

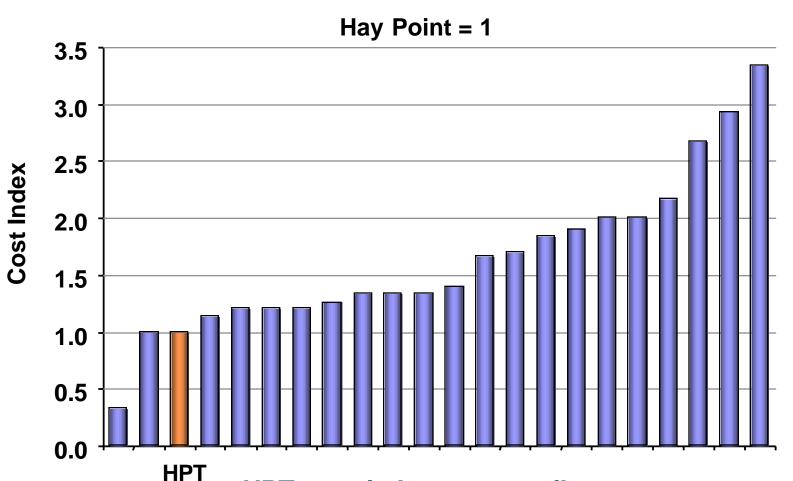




# **Hay Point Terminal Cost**



#### **Total Terminal Cost Index**

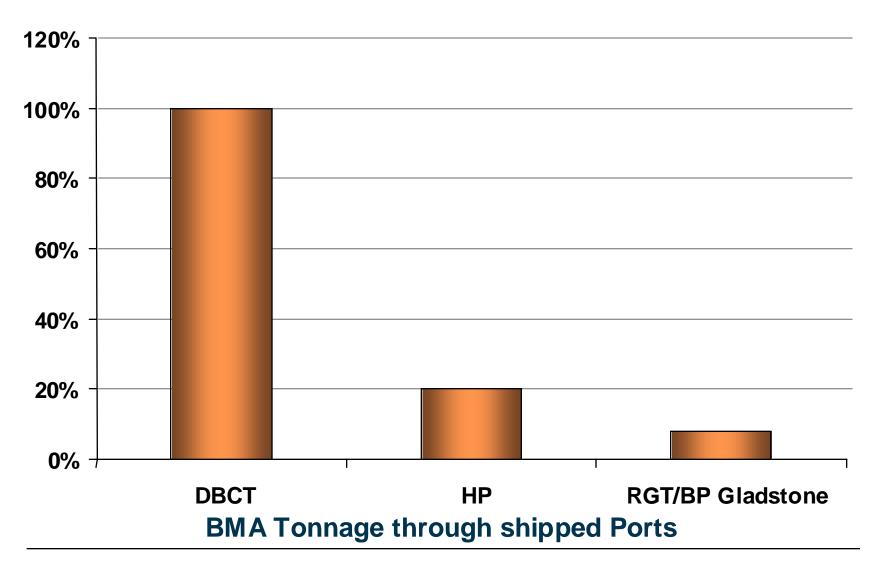


HPT cost in lowest quartile



# **Net Demurrage FY05**

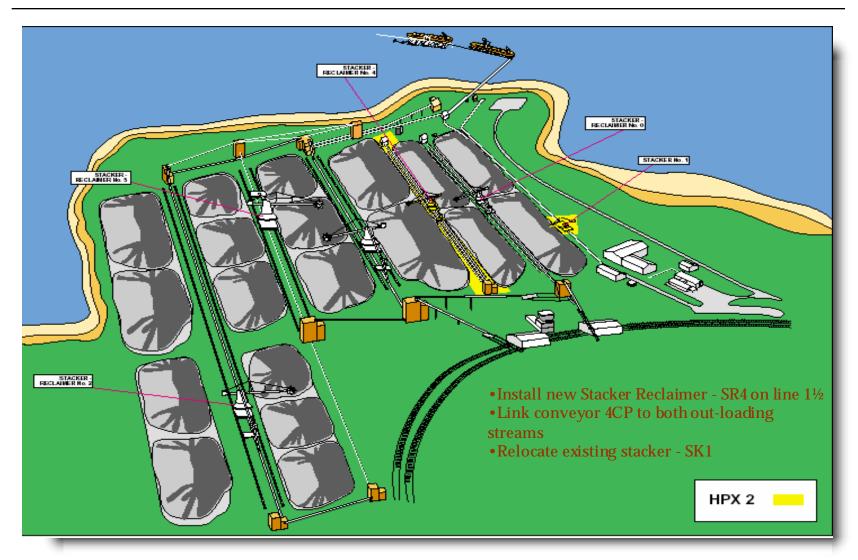




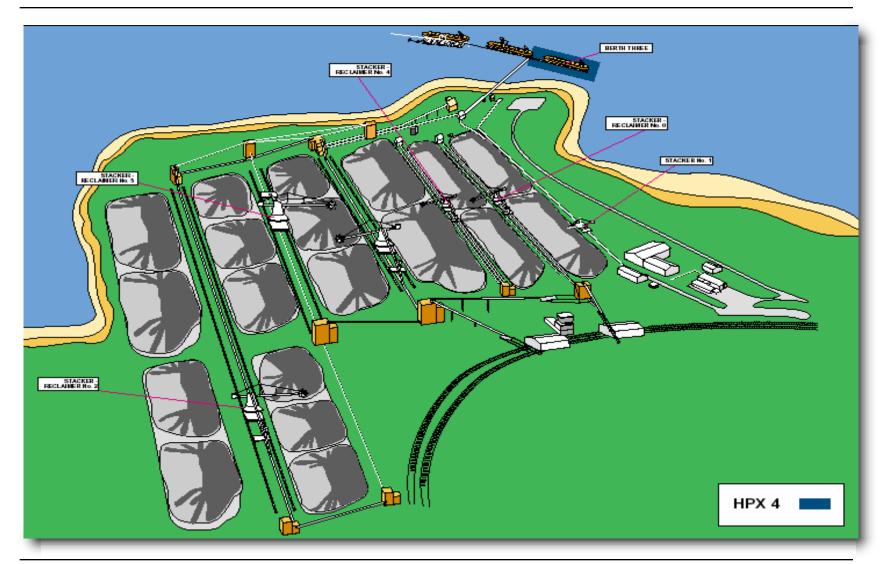




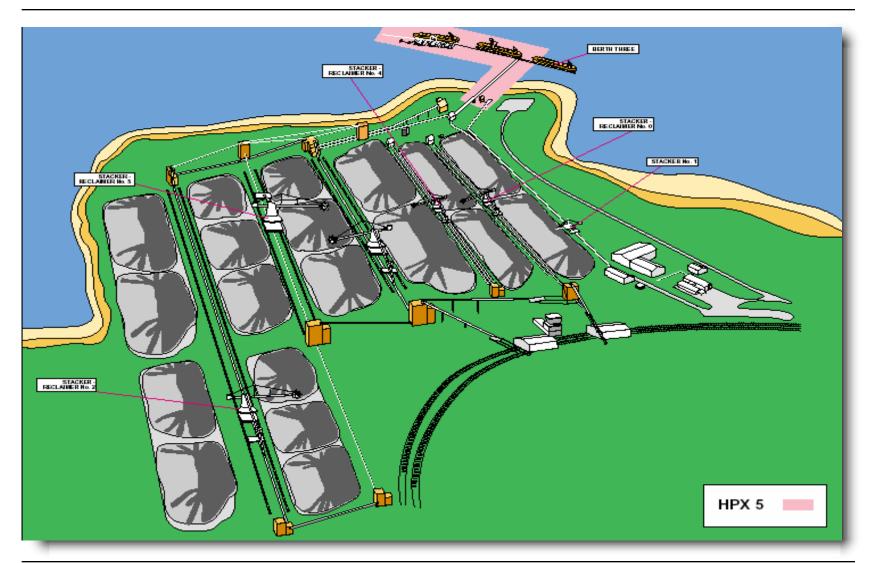
















- A strategic asset owned and controlled by BMA
- Integral part of BMA logistics chain
- Low cost, high productivity, quality focussed and reliability - all World Class
- Capacity to expand and continue to grow when we need to