Gas Management at Moranbah North

Presentation to ACARP
Gas & Outburst Workshop
16\textsuperscript{th} Sept 2005

Bruce Robertson
GMI seam - Total Desorbable Gas Content (m3/t)

- Current development in 5-6 m3/t coal
- High permeability, 100mD
- OMP in place
  - DRI900 at 7.2m3/t
- Mining 100s – 200s
- Preparing for transition to gassy mine operations:
  - Pre-drainage - now
  - Goaf Drainage – trials
Development 2006 - 2008

- Transition from south to north district
- Use this phase to establish drainage lead time
Gas drainage req’d at 3.5–4 m³/t
MRD variable success, improving
- Collaborating with CH4
- Require long lead times
Inseam drilling from niches, vented by risers
- ~ 22km in 2006, good conditions
- High perm, much water, good gas make, recharge
Gas Drainage Flows History

Cumulative Gas Flow (m³ at 20 °C and 101.3 kPa abs)

- Borehole Moranbah North (Well #108)
- Borehole Moranbah North (Well #107)
- Borehole Moranbah North (Well #Mains)
- Borehole Moranbah North (Well #108BV1)
- Borehole Moranbah North (Well #108BV2)
- Borehole Moranbah North (Well #107X)
- Borehole Moranbah North (Well #108Xa)
- Borehole Moranbah North (Well #51)
- Borehole Moranbah North (Well #36)
- Borehole Moranbah North (Well #29A)
- Borehole Moranbah North (Well #39A)
- Borehole Moranbah North (Well #108Xb)
- Borehole Moranbah North (Well #42)
- Borehole Moranbah North (Well #44)
- Borehole Moranbah North (Well #16)
- Borehole Moranbah North (Well #23)

Chart Options
- Cumulative Gas (m³)
- Gas (l/m/min)
- Water (m³/day)
- Water (l/min)
- Height Water (m)
- Pore Pressure (kPa)
- Gas (l/s)
- Cumulative Water (kilo-litres)
Drainage Strategy

Key

- Mined out
- In-seam drainage in place
- Low content (no drainage)
- In-seam drainage
- MNC MRD
- CH4 MRD
MRD Program

- 2005: 11 holes
- 2006: 10 holes
- 2006: 6 holes
- 2007: 10 holes
- 2008: 6 holes
Gas Management

- **Development**
  - Outburst Management Plan – on threshold
  - Pre-drainage, dewatering advantage
  - High ventilation, long gate roads

- **Longwall**
  - High ventilation required
  - 3 entry gate roads for pressure drop and tailgate gas management
  - Goaf drainage will be required. trials pending
  - Pre-drainage of upper/lower seams is an option (P, GL etc)

- **Gas Utilisation**
  - Flaring practised
  - Pipeline off-take (CH4/Enertrade)
  - Electricity generation – regional opportunity
  - Lots of gas – cost recovery