



Bulga Coal Mine – Coal Mining Trial



Case Study
GSM13-01

Year
2013

Client
XStrata

Site/Location
Bulga Coal

Region
Hunter Valley, NSW

Scope
Coal Mining Trial

Mechanical Availability
90%

Production Rates
411 bcm/hr. in partings
355 bcm/hr. in coal

Rock Type
Coal and Partings

Rock Hardness
20 to 50MPa

GET Consumption
1188 bcm per pick

Trial Time
60 days

Safety
3865 manhours,
Zero LTIs

Project Details

Xstrata contracted Global Surface Mining (GSM) to carry out a comprehensive trial to evaluate the use of surface mining (SM) technology to mine coal and partings at the Bulga Coal Mine in NSW. The trial was designed to determine if SM technology could:

- Cut at or above rates specified in Wirtgen manual;
- Mine coal without ripping;
- Mine partings without drill and blast or ripping;
- Selectively mine thin coal seams;
- Mine coal suitable for plant bypass (ash and -2mm fines);
- Reduce parting dilution; and,
- Increase coal recovery.

The results achieved were excellent:

- Nil incidents; ✓
- Acceptable surface miner noise levels; ✓
- Acceptable mining dust levels; ✓
- Cut coal and partings successfully without drill & blast or ripping; ✓
- Cutting at (or over) rates specified in Wirtgen operating manual; ✓
- Availability over 75%; ✓
- 50mm maximum dilution (average of roof and floor); ✓
- Maximum recovery; ✓
- Product suitable for plant bypass (ash and < 20% -2mm); ✓

Despite the overwhelmingly successful trial further evaluation and full production using surface miners was put on hold due to the fall in coal prices and subsequent reductions in planned mine output. Nevertheless GSM have continued to invest in innovative new technologies to reduce coal dilution and maximise coal recoveries.

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