

# Christmas Creek – Iron Ore Mining



## PROJECT SUMMARY

Fortescue Metals Group (FMG) contracted Global Civil and Mining (GCM) to operate and maintain their fleet of Wirtgen and Vermeer surface miners at the Christmas Creek mine.

FMG and GCM had collaborated for a number of years on the introduction of surface mining technology into the Pilbara iron ore industry. This close collaboration included the development of new (to the Pilbara) mine planning, mining, maintenance, get management and grade control techniques. Over many years leading up to the awarding of the surface mining contract at Christmas Creek GCM had established itself as the industry leader for surface mining in hard rock applications.

For the project GCM mobilised:

- A total workforce of 275 operators and support personnel;
- Purpose designed, built and equipped service trucks;
- Purpose designed, built and equipped pick (GET) maintenance trucks; and,
- Training, safety and quality support systems.

The mixed fleet of Wirtgen and Vermeer surface miners was the largest of surface miners working anywhere in the world. Monthly material movements were in excess of 8,000,000 tonnes. During the four year period over 150,000,000 tonnes of material were mined.

GCM invested heavily on practical, on site, R&D that resulted in the further evolution of one site surface mining practises. Pick design and development was fast tracked and new designs were trialled in the field.

Surface mining came of age in iron ore mining due to the vision, tenacity and innovative collaboration between FMG and GCM.

**Case Study**  
GCM14-02

**Year**  
2011-14

**Client**  
Fortescue Metals Group

**Site/Location**  
Christmas Creek Mine

**Region**  
Pilbara WA

**Scope**  
Iron Ore Mining

**Mining Production**  
Up to 9,400,000  
tonnes per month

**Rock Type**  
Iron Ore

**Rock Hardness**  
25 - 120MPa

**Fleet & Mech. Avail.**  
13 Wirtgen 4200s  
7 Vermeer 1655s  
9 Vermeer 1255s

**Production & GET**  
4200, 1626 tph  
1655, 1342 tph  
1255s, 498 tph

**Operations**  
24/7

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