

HOPE DOWNS 1 PROJECT TELEMETRY SYSTEMS

Project Name

Hamersley HMS
Hope Downs Project
Stage 1
Supply and Installation of
Telemetry Systems

Client

KBR

End User

Rio Tinto Iron Ore

Project Location

Hope Downs, Pilbara, WA

Services Provided

Design and installation of
telemetry.
Electrical installation
services

Project Value

Miri Telemetry

Project Value

\$1m

Completed

September 2008

Applicon performed project design, engineering and installation of telemetry systems on the Hope Downs Project Stage 1. The telemetry systems gather and distribute critical data from the electrical and water infrastructure associated with the mine, process plant, construction camp and permanent accommodation village

PROJECT SUMMARY

Rio Tinto Iron Ore undertook the Hope Downs Project Stage 1 (50:50 Unincorporated Joint Venture between RTIO and Hancock Prospecting) as part of their overall Expansion Projects plans. This new mine provides important additional production capacity to Rio Tinto's Pilbara operations.

SCOPE OF WORK

The primary scope of work covered the design, engineering, configuration, programming, testing, supply, installation and project management of a telemetry system based on Miri AD2006 RTUs. Slave devices were installed around the mine site to collect and transmit critical data to centralised Master units for display, trending, alarming and control on a stand-alone CitectSCADA I/O server.

Telemetry master and slave devices are installed at the following locations:

- Dewatering Bores (17)
- Standpipes (4)
- Construction Camp Potable Water System
- Construction Camp Waste Water Treatment Plant
- Workshop and Services Buildings Waste Water Treatment Plant
- 33kV Reclosers (2)
- Dewatering Bores Collection Dam Booster Pump Station
- Village Potable Water System
- Village Waste Water Treatment Plant
- Village Power Station

The system also provides remote start/stop control of the mine site dewatering bores as well as full automatic control of the potable water systems at the mine site, construction camp and village.



Quality
ISO 9001

SAI GLOBAL

AMD1003 REV03 10JUN09

BUSINESS IMPROVEMENTS

The installation of this Telemetry based monitoring and control system provided the client with real-time and historical visibility in their continual water usage across the mine and village sites providing them with information needed to make critical decisions based on current water table levels, pump MCC status and operation, fire pump, waste water and potable water tank levels and recloser status details.

After being originally selected as the successful Telemetry Systems tenderer under a traditional procurement process, Applicon's level of contract performance was such that KBR chose to increase our scope to encompass several different tasks and disciplines.

Apart from the original telemetry system scope, Applicon performed additional Electrical installation services, subcontractor management, fibre optic installation and terminations and also programming for motor control devices such as soft starters, motor managers and relays. These additional scopes were awarded largely as a result of our professional contracting approach, attention to detail, particular awareness of site mobilisation and safety requirements.

Applicon completed this 15 month project on time, on budget, and with zero incident and injuries.

TECHNOLOGIES

- Schneider CitectSCADA V7
- Miri AD2006 RTU
- Moxa industrial networks

ABOUT APPLICON

Applicon is an engineering company specialising in Process Automation & Control, Communications, Network Integration, Renewable Energy Systems, Power & Water, Security and Fibre Optic technologies. Our ISO 9001:2000 certification and engineering discipline means we approach technology using a structured and consultative methodology, to ensure the solution achieves the desired business outcomes.