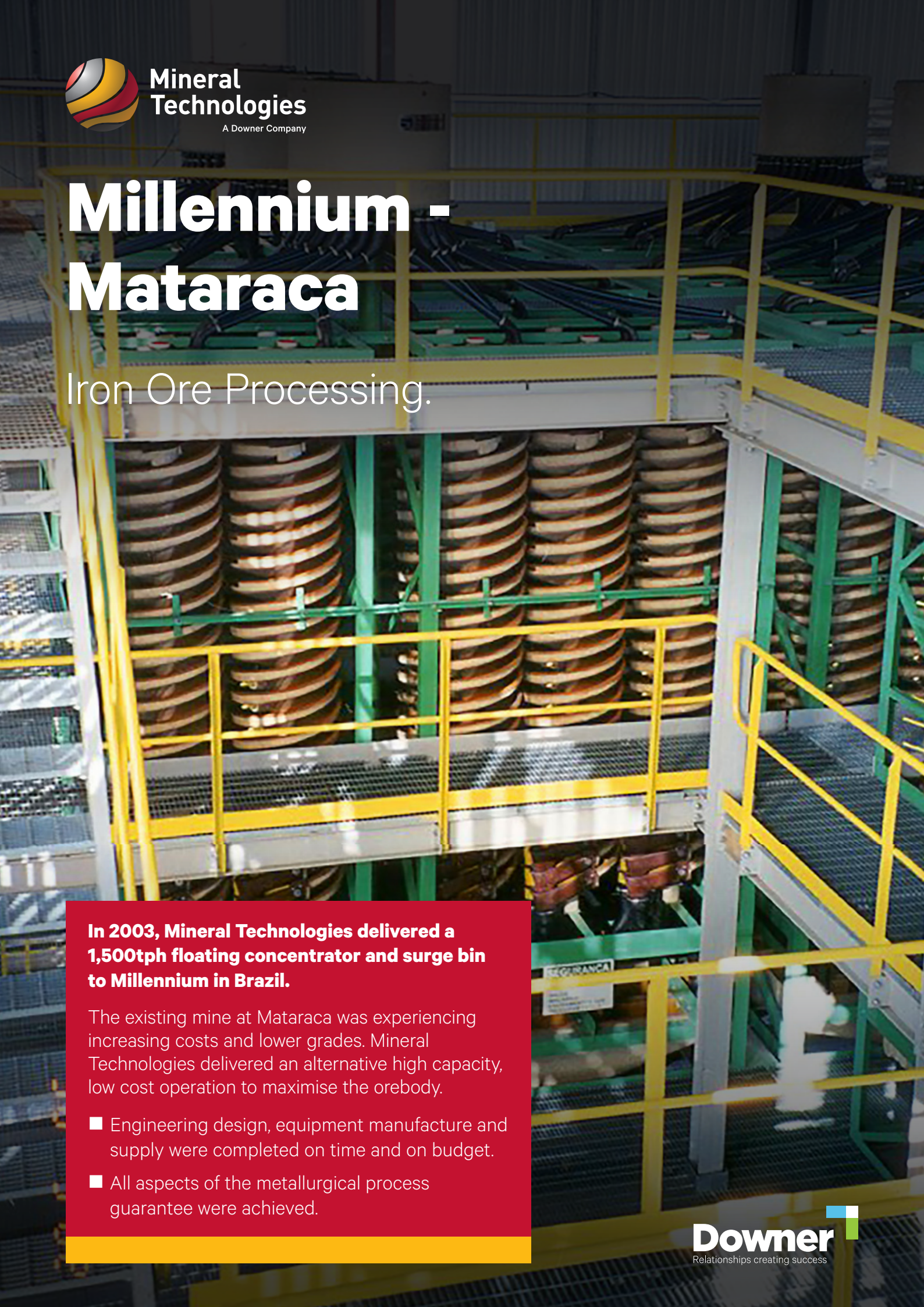
Mineral Technologies
A Downer Company

Millennium - Mataraca

Iron Ore Processing.



In 2003, Mineral Technologies delivered a 1,500tph floating concentrator and surge bin to Millennium in Brazil.

The existing mine at Mataraca was experiencing increasing costs and lower grades. Mineral Technologies delivered an alternative high capacity, low cost operation to maximise the orebody.

- Engineering design, equipment manufacture and supply were completed on time and on budget.
- All aspects of the metallurgical process guarantee were achieved.

Downer
Relationships creating success

Project Profile

Millennium - Mataraca

Client Millennium

Location Brazil

Capability Groups Mineral Processing

Commencement 2003

Completion 2003

Services Provided

- Metallurgical testing
- Plant design
- Equipment supply
- Commissioning
- Operator training

Highlights

- The existing mine at Mataraca was experiencing increasing costs and lower grades. Mineral Technologies delivered an alternative high capacity, low cost operation to maximise the orebody
- Engineering design, equipment manufacture, and supply were completed on time and on budget
- Commissioning by Mineral Technologies' metallurgists and engineers was completed on time
- All aspects of the metallurgical process guarantee were achieved
- Millennium was satisfied that key milestones and successful project outcomes were achieved

Smart Engineering

Mineral Technologies was commissioned to design a 1,500 tph floating concentrator and surge bin, and to supply process equipment along with commissioning and operator training services.

The project started in 1997 when Mineral Technologies conducted orebody evaluation at Millennium's existing Mataraca mine in north-eastern Brazil to determine whether proven deposits of lower grade ore could be economically mined.

In the following years Mineral Technologies provided preliminary mine planning followed by detailed mine planning. Bulk sample testwork was carried out at Mineral Technologies' South African facilities and process flowsheets were delineated. A feasibility study was then undertaken.

Following project approval Mineral Technologies was commissioned to deliver detailed engineering design, supply of proprietary gravity separation equipment, and commissioning services.

With tailings stability of paramount importance, Mineral Technologies also designed a tailings stacking system to safely deposit tailings behind the operation to pre-mining heights, some of which are located 50 metres above the dredge pond water level.