RWE

Mining: The world's largest-powering downhill conveyor

Mining Logistic





Chile



Client

Minera Los Pelambres (MLP)



Expertise

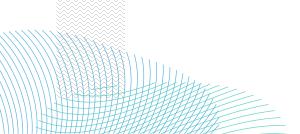
Electrical Engineering, Mechanical Engineering, Conveyor Belts, Conveyor Systems, Mine Logistics, Training

Our Services

- · Electrical engineering
- Mechanical engineering
- Basic design of a bespoke conveyor system
- O&M training
- Site supervision
- Owner's consultant



· Technical advisor on conveyor system



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Project description

One of the world's largest copper mines, Minera Los Pelambres (MLP) in Chile, is located in the Andes at 3,200 m. Due to environmental restrictions MLP was forced to place the ore processing plant 8 miles far apart from the minted site, at an elevation of 1.800 m.

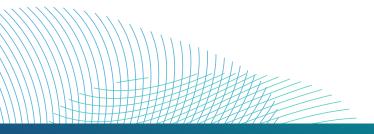
Daily ore throughput was planned initially at 85,000 tones, with later increasement to 197,500 tones. Developing a technically feasible and economically viable transport solution for the movement of ore from mine to plant posed a significant challenge.



MLP appointed us to develop the necessary transport system connecting the ore mine site with the processing plant. As owner's consultant and technical advisor we developed the basic design of the conveyor system. During construction works our electrical and mechanical experts checked the quality of the installation in compliance with specifications.

Other services we provided included supervision during commissioning, and training of local operations and maintenance staff. Our role as technical advisor to the site owner involved assisting the client with both technical data and problem solving, while also making operational decisions on their behalf within the initial operating phase.

The result: A bespoke design for the world's largest powering downhill conveyor with 1,200 m drop over a distance of 8 miles. The conveyor belt is the most powerful belt in the world with a strength of 7,800N per mm width. Due to both bespoke designs of belt and brake control system, an effective operation under extreme circumstances became reality.



America & Africa

