

OCP Concentrate Pipeline Dewatering

Deep Bed™ Paste Thickeners



CASE STUDY

Location: Jorf Lasfar, Morocco

Owner: Office Cherifien des Phosphate

Improving the Process

Morocco has expanded its phosphate operations. The country has increased the production of its mines located inland. To handle the increase in concentrate, they have switched from rail transport to a slurry pipeline. They have also created joint ventures with their customers to install acid plants near the coast. The phosphoric acid will be a significantly larger part of the country's exports, rather than the raw material.

The 187km pipeline is designed to transport the 50-53 wt% solids concentrate solution from the Khouribga-based mines to the Jorf Lasfar seaside industrial platform. The concentrate slurry is then divided between several acid plants and screening plants. The feed to the acid plant is optimized to 65 wt% solids to save on sulfuric acid consumption. WesTech is supplying the Deep Bed™ paste thickeners required to produce the target feed density for four of the acid plants. WesTech is also supplying the pumps, instrumentation, and surge holding tanks.

WesTech/Paste Thick™ recommended and designed process control to insure a tight underflow density for the acid plant. The thickener underflow system has instrumentation and methods of monitoring and trimming the density to a narrow range.



WesTech 20m Deep Bed™ paste thickener and 10m surge tanks feeding the acid plant.