

KEMAPCO, JORDAN

Geosynthetic lining system for potassium nitrate evaporation ponds



Industry: Water
Application: Evaporation ponds
Location: Aquaba, Jordan

Overview

Arab Fertilizers and Chemicals Industries Ltd (Kemapco), owned by the Jordanian Government, produces fertilizers at a site located 30 km (18.6 miles) south of Aqaba in Jordan. The plant produces roughly 8% of the world's potassium nitrate, which has a wide variety of uses particularly in food production as a preservative and in agriculture as a fertilizer.

The plant has several evaporation ponds that store and evaporate the effluent water from the manufacturing process. In August 2021, Arabian Environmental Construction Co. (AEC) in Jordan were appointed to construct two new evaporation ponds. These evaporation ponds were lined with Solmax geosynthetic liners to protect groundwater and seawater from pollution.

Challenge

The project owner had rigorous standards for the installation of the geosynthetic lining system. The installation and quality control testing was carried out by AEC. Envitech Solutions, South Africa, was responsible for construction quality assurance for the installation of the geosynthetic lining system and the scope of work included monitoring and reporting on the installation of the geomembranes as well as co-signing the quality assurance certificates provided by AEC.

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CASE STUDY

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The project faced several challenges that threatened to timeously completion of the project. These included a short supply and rising costs of raw material. The Solmax team was praised for their global mentality and local manufacturer approach that allowed them to overcome these challenges and complete the project on time.

Solmax's role

Solmax provided an innovative solution that met the client's exacting requirements. The liners protect the environment and local communities from pollution and allow for the safe and effective removal of the wastewater. Mazen Zureikat, Managing Director of AEC said, "This was another success story complemented with quality Geosynthetic Materials supplied by Solmax and quality installation including the state-of-the-art Post Installation Arc & Dipole Testing."



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