Customer Success Story

Location: Africa

AMI systems transform mining camp in Africa

Mining camps may lack access to clean water due to limited water sources and high levels of contamination.

Challenge

In the heart of a remote location in Africa, a gold mine was experiencing significant growth.

With commercial production of over millions of ounces of gold, the mine continued to expand its operations to increase its ore throughput capacity.

The expansion necessitated upgrades to the mine mill facilities, infrastructure, and water treatment systems.

The mine needed a solution to treat brackish water from a bore hole and provide water for mining operations and drinking water for the 800-person camp.

An engineering firm collaborated with Applied Membranes on this project. Applied Membranes would provide systems that produce softened water for the camp workers and elution treatment water for the expanding mining operations.

Solution

Applied Membranes designed and built two (2) state-of-the-art brackish water reverse osmosis (**BWRO**) water treatment systems with a total capacity of **150 GPM (35 m3/h)** for the mine operations.

Housed within 40-foot containers, the first container is for pre-treatment including chlorine generators and media filters.

Pre-treated water is then piped into the second container with an Applied Membranes RO skid and clean-in-place (CIP) system for further purification.

Additional technologies such as UV treatment provide treatment for high-quality drinking water.

The RO product water is stored and pressurized in tanks, ensuring a reliable supply for mining operations, and distributed to various points of use within the site.

Key Features:

- pH monitor
- ORP monitor
- Antiscalant
- Chemical injection system
- Clean-in-place system

Results

Applied Membranes collaborated with the engineering firm and provided access to clean and safe water for the remote mining operations and camp in Africa.

The 800-person workforce relies on access to clean and safe water from AMI systems for daily activities, including personal hygiene, drinking, cooking, and laundry.

Scalability: AMI modular systems are scalable so the infrastructure can adapt to changing operational needs and future expansions.

Robust technology: AMI systems incorporate advanced technologies to meet stringent quality standards and regulatory requirements. Remote monitoring is included to enable real-time monitoring and management of water quality and system performance.

Reliability: AMI systems deliver reliable and consistent performance, providing a continuous supply of high-quality water to support mining operations and meet the potable water needs of mine workers.

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