

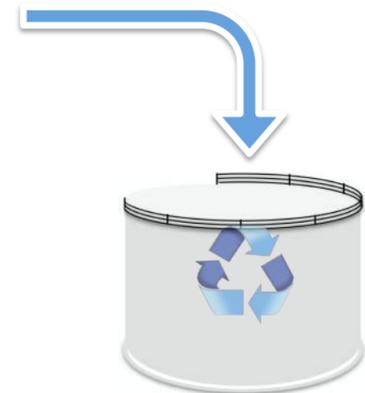
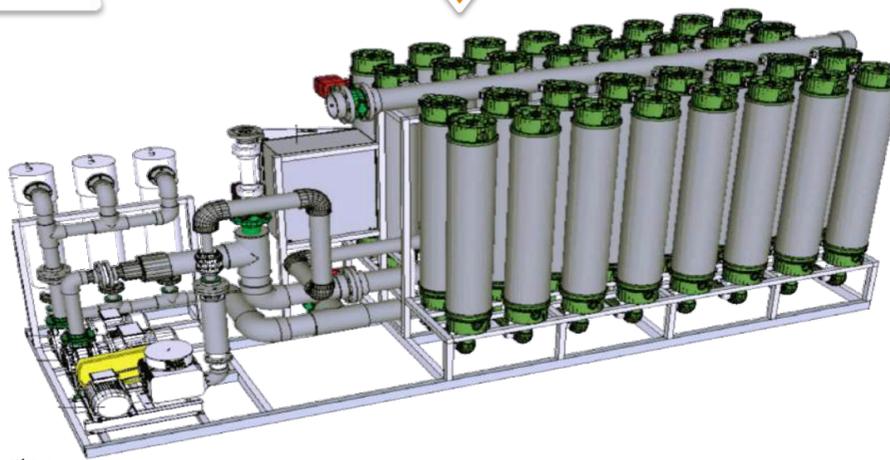
Tailing Pond Treatment with PoreLogix Ultrafiltration Systems

PoreLogix Ultrafiltration Systems with the PAN Hollow Fiber membrane treats tailing ponds without chemicals for immediate reuse in the processing cycle.

1 WATER USE
The process of mining requires the mixture of pulverized rock and water to make slurry.

2 COLLECTION
From this slurry, the valuable material is extracted with gravity or chemicals leaving behind a tailing pond of excess minerals.

3 FILTRATION
PoreLogix Ultrafiltration Systems provide a robust, mobile filtration system capable removing 99.99% of the leftover tailings >.01 micron pore size.



4 FILTRATION & RECYCLING
Producing greater than 90% water recovery, PoreLogix Ultrafiltration Systems significantly reduce the water demand for each mining operation.

5 QUALITY
PoreLogix Ultrafiltration Systems consistently provide higher quality permeate compared to traditional systems with polymers.

6 ADVANTAGES
PoreLogix Ultrafiltration Systems are energy efficient, low maintenance and 1/3rd the size of traditional clarification technology.

** Typical permeate quality is (<5mg/l TSS) without the use of polymers.*



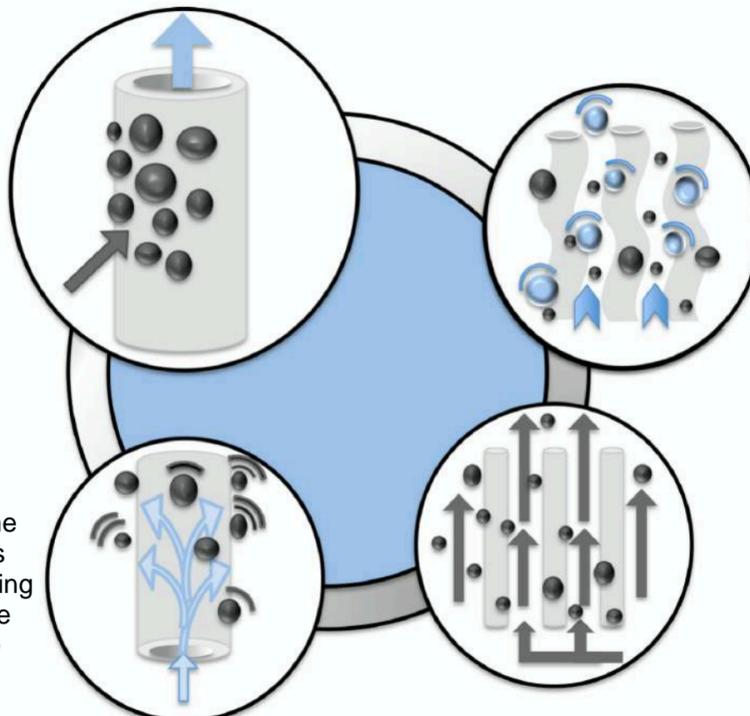
PORELOGIX ULTRAFILTRATION SYSTEMS FILTRATION PROCESS

FILTRATION PROCESS (OUT - IN FLOW)

Filtration process is via an Out-In flow configuration where feed water is in contact with the exterior of the fibers and the filtrate (product water) is drawn from the inside of the hollow fibers (lumen). This configuration has the distinctive advantage of a larger membranes surface area, which translates to a higher flow.

BACK FLUSH

After the Forward Flush process has removed the majority of the solids from the cartridge, Porelogix Ultrafiltration systems will engage in a Back Flush process utilizing filtrate to Back Flush from the inside of the hollow fibers, hence dislodging any of the remaining solids attached to the outer surface of the fiber.



AIR SCOURING

During both the Forward Flush and Back Flush process, air bubbles are injected into the cartridge dislodging suspended solids from the hollow fiber membrane. This enables the Forward and Back Flush process to effectively remove the solids from the cartridge to prevent build-up.

FORWARD FLUSH

On a preset time frame or upon reaching a predetermined transmembrane pressure (TMP), Porelogix Ultrafiltration systems will engage in a regeneration process. Beginning with the Forward Flush process, 95% of the solids are removed with the feed water without TMP constriction.