



The Challenge

North American Industrial Services (NAIS) provides industrial cleaning support to Kennecott Mine in Magna, Utah. Their customer requested an alternate method to excavation and open-air drying of tailing.

The tailing had recoverable metal benefits if dry ore was 60% solids, using a conditioning agent that would not interfere with the copper cathode process. Recovered ore needed to be protected from rewetting by rain and migration of airborne particles during storage.

The Solution

NAIS reviewed various dewatering technologies and found Geotube® containers, alongside SmartFeed™ chemical conditioning technology, were able to meet the goals of the project.

These combined technologies allowed hydraulic dredging at variable rates of 800-1,500 gpm with feed solids



variations of 2-30% dry solids. The SmartFeed™ system's ability to handle such variable feed allowed the dredge to operate without intervention. The collection of ore fines having a particle size of 75µm required a chemical program that resulted in high capture rates with a dose rate that did not impede recovery process.

The consolidated ore within the Geotube® containers exceeded 60% dry solids with a capture rate of 99.3% in the returning filtrate.

The Geotube® structures provided protection from rewetting and

protection from airborne particulate migration.

Customer Comments

"The use of Geotube® containers fed by the Smartfeed™ system provided a process that benchmarked itself daily with mass-balance reporting. The application resulted in a low impact to the surrounding environment, leaving a protected, recoverable ore."

SmartFeed™ is a patent-pending technology of

Mineral Processing Services, LLC

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Application:

» Copper Tailing Pond Processing

Location:

» Salt Lake City, UT

Technology:

» SmartFeed™ Chemical Conditioning
» Geotube® Engineered Containers

Geotube® Distributor:

» Mineral Processing Services

Contractor:

» North American Industrial Services

Polymer:

» Aries Chemical