



## 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