



Mobile Remediation Enhanced By Sludge Demulsifier

Problem

Chempro Environmental, a Pacific Coast remediation company, was contracted to clean up 50,000 BBL of refinery sludge and tank bottoms.

Due to the previous history of the tank, contents were stratified, with pockets of heterogeneous mixtures of oil, water, and solids.

A reliable and versatile demulsifier was needed to enable the decanter centrifuge to provide the stipulated recovery and volume reduction.

Solution

RECOVEROL* ECO 17 was tested under different conditions on a variety for samples. Although oil content of the sludge ranged from 8-40%, and solids from 10-35%, ECO 17 gave a consistent three-phase separation.

Results

ECO 17 was mixed into the sludge batch tank at a concentration of 1000-2500 ppm. Temperature was controlled at 120-150°F, and a contact time of 8-10 minutes was allowed. Upstream of the decanter polymer was injected at around 1000 ppm.

Centrifuge solids were discharged into a holding tank, and the liquids pumped into Baker tanks for settling.

At an average processing rate of 1100 barrels per day, the following typical results were achieved:

Solids	65-72% dry solids Less than 4% oil
Oil	Less than 1% BS&W
Water	Less than 300 ppm TSS

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