CETCO ENERGY SERVICES

A Minerals Technologies Company

SUCCESS STORY

Water Treatment & Filtration

CLEAR SOLUTIONS for complex fluids

$ZnBr_2$ Removal Emulsified Oil - TUNA™ Heat Exchanger Unit

CHALLENGE

- $ZnBr_2$ could not be separated from the oil due to viscosity

SOLUTION

- CETCO Energy Services (CETCO), TUNA™ flameless heat exchanger unit

RESULTS

- Recovery of 3,000 BBLS of $ZnBr_2$ and prevention of oil contamination

$ZnBr_2$ Removal Emulsified Oil - TUNA™ Heat Exchanger Unit

CHALLENGE

A Gulf of Mexico Operator could not successfully clean up a well due to $ZnBr_2$ completion fluid that was heavily emulsified with crude oil that had a high concentration of paraffin and asphaltenes. CETCO was requested to provide a solution to break the tight emulsion, return clean oil to LACT Meter and to capture the completion fluid to send in for reconditioning.

CETCO SOLUTION

CETCO dispatched the TUNA™ flameless Heater Treater that captures waste heat from diesel engines exhaust, engine water cooling system and hydraulic power pack that has an artificially high load to create desired heat. This waste heat is captured using highly efficient heat exchangers that heats up a process medium (glycol & water solution) that indirectly introduces heat to the process fluid via a tube & shell heat exchanger.

The TUNA™ unit was able to raise the temperature of the Crude Oil from 70°F to 160°F to break the tight emulsion with the aid of low concentrations of emulsion breakers to deliver pipeline sales quality oil to LACT Meter and return clean completion fluid suitable for recondition and or for proper disposal.

The TUNA™ unit is rated for Class 1 Div. 2 Area Classifications for Offshore services and is fully API-14C Compliant.

RESULTS

CETCO recovered ~ 3,000 BBLS of highly contaminated $ZnBr_2$ Completion fluid and crude oil. Successfully broke the emulsion and delivered clean oil to LACT Meters and transferred completion fluid to A Work Boat standing by with 500 BBL tanks. A portion of the Completion Fluid was sent in for credit and reuse. As a result, disposal cost was kept to a minimum.

This solution allowed the Operator to successfully clean up and flow the well without contaminating Processing Facility with $ZnBr_2$ completion fluid. Operator also had no problem passing Annual Toxicity Testing and there were no NPDES exceedances during the course of this operation.

CLEAR SOLUTIONS for complex fluids

CETCOENERGYSALES@mineralstech.com
cetcoenergyservices.com