

CETCO

ENERGY SERVICES

Trinity

A Minerals Technologies Company

SUCCESS STORY

Water Treatment & Filtration

Temporary Process Equipment & Technologies



CLEAR SOLUTIONS for complex fluids

Remove Highly Emulsified Crude Oil from Oil Export Cooling Medium

CHALLENGE



- Remove highly emulsified crude oil contaminating cooling medium system used to cool oil prior pumping oil into departing export pipeline without impacting over 90,000 bpd Offshore Oil Producing Platform in the Gulf of Mexico (GOM)

SOLUTION



- CETCO Energy Services (CETCO), developed a custom process to treat highly contaminated cooling medium to recover oily emulsion while the system remained on line

RESULTS



- Process 2,622 bbls of highly contaminated cooling medium with RM-10® emulsion breaker without a single process upset and zero interruption in oil production. Project completed within budget, allotted time frame and cooling medium cleaned up to its original condition and heat dispersing properties.

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Remove Highly Emulsified Crude Oil from Oil Export Cooling Medium

CHALLENGE

A process and procedure had to be developed to process highly emulsified contaminated cooling medium for the platform's oil export cooling system without causing any process upsets. The system had to be performed with clear and concise communications with facilities' control room to maintain desired levels in oil expansion tank within very tight tolerances to keep from causing a major upset or shut in that would adversely affect daily oil production which was in excess of 90,000 bopd. It should be noted that conventional oilfield emulsion breakers used in the industry very found to be ineffective in breaking the tight emulsion.

CETCO SOLUTION

CETCO worked with our Wastewater Group that specializes in treating highly contaminated fluids and identified a blend of RM-10[®] emulsion breaker that worked remarkably well in breaking tight emulsion in a matter of seconds whereas other emulsion breakers frequently used in the Oil & Gas Market had essentially no effect on the tight emulsion.

Once the desired RM-10[®] emulsion breaker product was identified a system was scaled up to treat the Oil Export Cooling Water System. A modular package was assembled that would work in the allotted space on an Offshore Platform that complied with strict requirements for a Major Oil & Gas Operator in the GOM. The system was developed to batch treat ~ 2400 bbls of cooling medium while the system remain fully on-line and without interrupting daily oil production rates. Whole process had to be operated to stay within very tight liquid level tolerance otherwise a shut in would occur and shut in the platform and become a major disruption to daily oil production quotas.

RESULTS

A total of 2,622 bbls of Cooling Medium was process and 76 bbls of oil and oily flock was recovered and sent in for disposal. A total of 600 lbs of RM-10[®] emulsion breaker and 90 3 Ply Socks Filters were used.

The Cooling Medium was fully restored to its original condition and heat dispersion properties. Project was completed on time and within budget and ZERO disruption in Oil Production. ZERO Environmental or Safety Incidents. Client was 100% Satisfied and assured CETCO if this project was needed they would not hesitate to call CETCO to perform this service again.

