



# CLEAR SOLUTIONS for complex fluids

## Decrease Cycle Time – Subsea Well Intervention



### CHALLENGE

- Subsea well intervention campaign was scheduled for a condensed timeline from conception to completion, cycle time, to decrease cost and match vessel schedule



### SOLUTION

- Designed and commission BSEE compliant Well Test and Filtration package to meet Subpart H RP 14C. This proposal combined design and execution phase of the campaign to a single step



### RESULTS

- CETCO Energy Services (CETCO), commissioned a BSEE compliant Well Test and Filtration package in a timeline that allowed for the addition of a 3rd well to intervention campaign

## Decrease Cycle Time – Subsea Well Intervention

### CHALLENGE

A deep water Gulf of Mexico producer experienced decline in production of (2) subsea wells. The decision to intervene on both wells was a function of timing and cost. The goal of the intervention was to safely increase production at minimum cost without causing main production facility downtime in the form of process upset.

### CETCO SOLUTION

Due to strong working relationship between producer and CETCO, a semi-submersible well intervention vessel was identified 14 days prior to equipment mobilization. Given this accelerated timeline, RP Subpart H BSEE schematic must be generated and submitted in parallel with equipment preparation and mobilization. This proposal condensed the regulatory approval process into equipment mobilization increasing the risk of downtime waiting on regulatory approval. CETCO proposal included combination of well test and water filtration process with 800 bbl of holding capacity on rig and (2) OSVs with a total holding capacity of 6,000 bbl of crude for maximum operating rate of 10,000 bbl/d oil, 4,000 bbl/d water, and 20 MMscf/d gas.

### RESULTS

CETCO package was commissioned with all regulatory approvals 11 days after the intervention vessel contract started. The 1st well acid intervention was completed 18 days into contract period with a stack hop to the 2nd well. The 2nd well acid intervention was completed 18 days into contract period. Given the success of the intervention campaign a 3rd well was added. The 3rd well acid intervention was completed 37 days into contract period.

Both CETCO and intervention vessel were released after 43 days of operation in which a total (6) acid stages were pumped. During well test flow periods, 2,851 bbl of fluid was treated and discharged overboard while 11,506 bbl of oil was transferred onto OSVs. Producer and intervention vessel had not previously experience such cycle times for this scale of operation. The project ended with zero recordable injuries. This is a testament to strong working relationship between CETCO and producer.

