



## SUCCESS STORY

Well Fluid Management  
Well Intervention & Flowback Applications

# Underbalance Perforation - Fluid Recycling Process

## CHALLENGE

In a multi-well deep water Underbalance intervention campaign, our client sought a 4-Phase Separation Package that adhered to both government and ABS requirements for installation on multiple MODUs in GOM. Although package criteria altered slightly per campaign the general requirements are as follows:

Fluid Rate - 6 BPM

Gas Rate - 6 MMscf/d

Surface Pressure - 15 kpsi

Holding Volume - 900 bbl

Deck Area Limits - ~40 ft x ~100 ft

## CETCO SOLUTION

By commingling our Well Test and Water Treatment & Filtration services, CETCO Energy Services, (CETCO) offered a single vendor solution to receive, treat, and transfer fluid. This solution was then validated by our R&D and process engineering group providing supporting documentation against actual well bore fluids.

Highlights of Solution:

High Capacity Remote Venting System (Safe Area)

Area Classification Compliant

Large Fluid Holding Volume

In-tank Oxygen Detection System

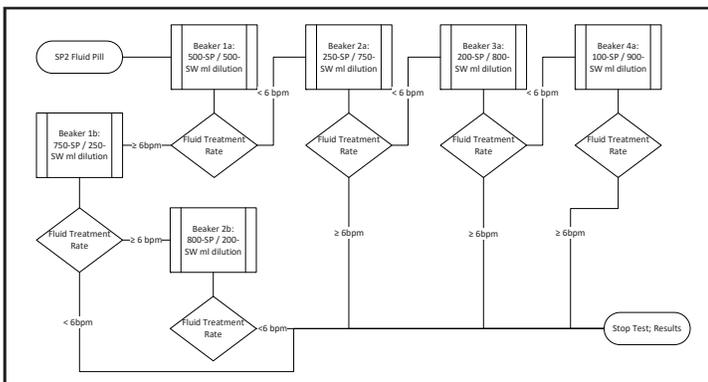
Closed Loop Filling of MPTs (When Necessary)

Sand Slurry Disposal System

## RESULTS

Prior to installation of CETCO Fluid Management and Recycling Package, 100% of surge volume and subsequent reverse outs were sent for disposal accounting for waste of between 800 to 2,000 bbl per well.

On average CETCO package is able to return between 50%-90% of the volumes previous disposed. This results in less logistical cost and ultimately disposal fees. At average cost of ~\$250 per barrel, CETCO has saved our client ~\$5.2 MM and counting in fluid/logistical costs. This does not include the added well production benefits of perforating Underbalanced which is made possible through hydrocarbon handling system.



©2021 CETCO ENERGY SERVICES, A MINERALS TECHNOLOGIES COMPANY. All Rights Reserved.



CETCOENERGYSALES@mineralstech.com  
cetcoenergyservices.com