

Case Study

Reactivating a 'Dead Well' & Boosting Production

Background

A state-owned oil company faced a significant challenge with a non-producing "Dead Well" in a block where 40% of reserves had been extracted, leaving 60% unrecovered or deemed technically unviable. The well's heavy oil, with an API gravity of 12° to 14° and a viscosity of 18,000 cps, posed operational difficulties. Waxing issues and high viscosity further complicated extraction efforts. With limited public disclosure due to the company's information policy, the customer needed a solution to justify further investment—or risk abandoning the block entirely.

Challenges

1. **Operational Challenge:** Zero production (0 bpd) with significant remaining reserves.
2. **Technical Constraints:** High viscosity (18,000 cps), wax buildup, and suboptimal rock permeability.
3. **Financial Risk:** Without viable production, the block faced potential abandonment, halting future investments.

Solution

Our team deployed a well stimulation strategy focused on two key mechanisms:

1. **Reducing water/oil surface friction to enhance flow.**
2. **Altering rock permeability to a water-wet condition, improving oil mobility.**

No additional chemical treatments were required, ensuring a cost-effective and streamlined approach. The intervention was tested over a 30-day period.



CDS[®]

Results

The outcomes exceeded expectations:

1. **Production Increase:** From 0 bpd to 50 bpd.
2. **Viscosity Reduction:** Dropped from 18,000 cps to 90 cps at 90°F.
3. **Wax Inhibition:** Effective control of wax buildup without chemical additives.
4. **Technical Justification:** Provided a basis to pursue the 60% of previously unviable reserves.
5. **Financial Impact:** Created a strong economic case for continued investment in the block.

Conclusion

This case study highlights the power of CDS Solutions targeted well stimulation to revive non-producing assets. By addressing both operational and financial challenges, our approach not only restored production but also opened new opportunities for the customer. The success underscores the potential for similar strategies to unlock value in other challenging reservoirs.

To learn more

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