

Weatherford®

REAL RESULTS

PCPs Reduce Annual Well Interventions by 69 Percent, Surpassing KPIs

Objectives

- Increase the mean time between failures (MTBF) to 150 days for 260 oil wells situated within four field clusters.
- Reduce well intervention rates by overcoming application challenges that negatively impacted well run times, including high bottomhole temperatures (BHT), medium aggressive fluids, corrosive downhole environments, and tubing and rod failures.

Results

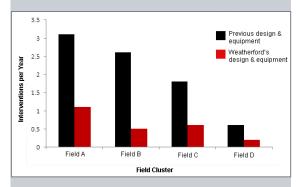
- Weatherford personnel designed and installed over 260
 progressing cavity pumping (PCP) systems within each of the
 operator's four field clusters. The optimized pump selection
 combined with best operational practices resulted in the following
 declines in yearly well interventions:
 - Field A, from 3.1 to 1.1 (a 64 percent decrease, with five of the 26 wells experiencing zero interventions)
 - Field B, from 2.6 to 0.5 (an 80 percent decrease, with19 of the 28 wells experiencing zero interventions)
 - Field C, from 1.8 to 0.6 (a 66 percent decrease, with 37 of the 65 wells experiencing zero interventions)
 - Field D, from 0.6 to 0.2 (a 66 percent decrease, with 82 of the 91 wells experiencing zero interventions)

Value to Client

- Using Weatherford's PCP systems extended the run time of the operator's well operations to an average of 377 days (one field in particular averaged 484 days), reducing the frequency and associated downtime of well interventions and substantially reducing operating costs.
- Weatherford's PCP systems met and surpassed the operator's target KPI.



Weatherford's PCP systems decreased the number of interventions in each field by an average of 69 percent, with many of the wells experiencing no interventions, exceeding the operator key performance indicators (KPIs) despite demanding well applications.



The graph above shows the average well interventions per field cluster before and after Weatherford's PCP installation.

Location

Romania

Well Type

Onshore

Deviation

Vertical to 15°/100 ft (30 m) dogleg severity

Products/Services

- Downhole PCPs (numerous models)
- PCP driveheads
- · Monitoring and optimization software

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