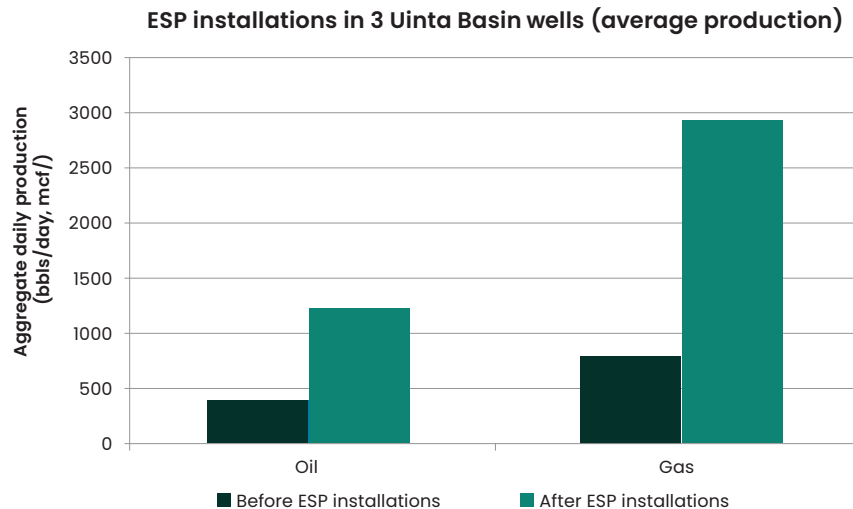


Case study: Utah

ESP systems increase oil production 199% and gas production 263% in the Uinta Basin



An operator in Utah recompleted several wells in the Uinta Basin. Over the first few months following the recompletions, production dropped dramatically. Concerned with the decline in production, the operator approached Baker Hughes Artificial Lift Systems for a solution. In addition to the decline in production, these wells had bottomhole temperatures in excess of 220°F (104°C), the wells were more than 10,000 feet deep, and gas-to-oil ratios (GOR) were above 2,000 scf/bbl.

Baker Hughes designed and installed electrical submersible pumping (ESP) systems for three of the wells to increase draw down and boost production. The systems used **FLEXPump™ technology** to cover a wide production range. **MVP™ multiphase pumps** were also used with tandem **GM™ performance series vortex gas separators** to handle the high GOR.

To improve reliability in the elevated temperatures characteristic of the deep setting depths, the systems were designed with **XP™ Xtreme Performance series** motors for more reliable operations.

After installation, the ESP systems were able to draw down the intake pressure significantly. This solution increased oil production 199% from an average of 414 BOPD to 1,237 BOPD during the first month. Additionally, the customer experienced an increase in gas production of 263% from 809 Mcf/D to 2,938 Mcf/D. This boost in production accelerated the payback period for the recompleted wells and helped the operator achieve its production targets.

Challenges

- Bottomhole temperatures in excess of 220°F (104°C)
- Deep pump setting depth
- Large volumes of gas in the production fluid

Results

- Oil production increased from an average of 414 BOPD to 1,237 BOPD in the first month after installing three ESP systems
- Gas production increased from an average of 809 Mcf/D to 2,938 Mcf/D in the first month after installation