

Less Downtime = Increased Production for Key Operator in California Resulting in an Estimated \$7,000,000 in Savings

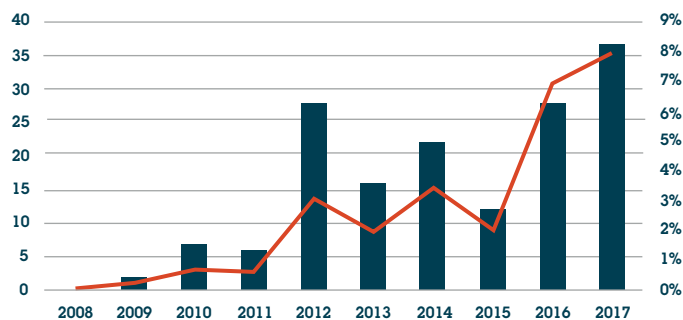
CHALLENGES

- Reservoir dynamics in heavy oil, high water cut thermal field with high volumes of sand production, gas interference, steam flash and corrosion
- 100-year-old field with high lifting costs, declining production and unfavorable run times
- Increasing state regulatory constraints on new well permitting

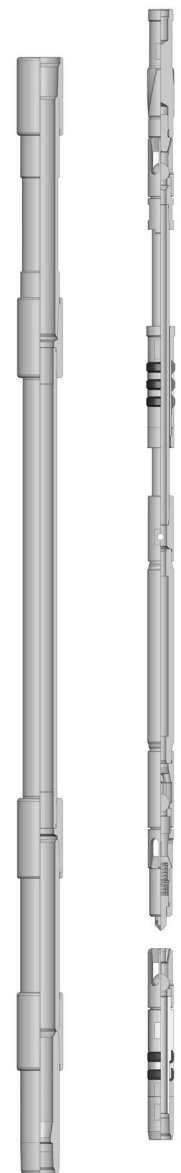
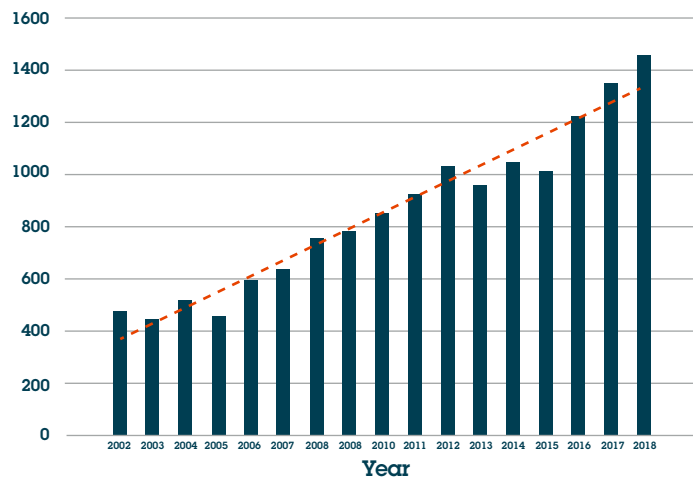
SOLUTIONS

- Harbison-Fischer sales and technical service experts meet weekly with the customer to analyze well performance and provide pump recommendations
- Harbison-Fischer used the Scientific Method to analyze data to ensure best pump and system performance and increased run time
- Each well was individually reviewed, due to various well conditions
- Harbison-Fischer used a variety of pumps in this region including: Sand Pro, VSP, and Two-Stage Hollow Valve Rod pumps
- Implemented every available metallurgy on pumps including Titanium balls and stainless barrels
- Pump design modifications allowed the customer to achieve desired results for a given application
- Long term collaborative relationships

Operator 10 Year Run Life



Average Run Days - Operator



RESULTS

- 10 year run times have increased to 8% of all pulls in 2017
- Averaging less than .2 failures per well per year
- Well pulls in customer's field have decreased 50% in the last decade alone, resulting in an estimated savings of \$7 Million in that time, and run times have increased over 300% since switching to Harbison-Fischer.

Unsurpassed Customer Support

Our relationship with the oilfield operator does not end when our rod-lift products enter the wellbore. In fact, that relationship will continue to grow over the product's complete life-cycle, with our highly trained Technical Service and Sales staffs just a phone call or email away should you require any assistance, from system design to troubleshooting to completing a product's delivery and installation.

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