

Case Study: A Steamflood Field Demonstration Using the **R65-800** Downhole Pump

CUSTOMER CHALLENGES

This customer faced significant challenges in their steamflood field due to steam reducing the production of their artificial lift systems. Their existing reciprocating rod lift (RRL) systems in this field were experiencing difficulties when steam breakthrough occurred, including gas locking and inconsistent/reduced oil production.

The customer wanted a reliable artificial lift system that would be able to meet target production rates without negative effects of steam flashing, and eliminate the need to pause steam injection or carry out workovers.

TECHNOLOGY SOLUTION

The solution for this customer was the **Rotoliptic R65** pump. The customer aimed to test the ability of the **R65** to either delay or prevent steam breakthrough or at a minimum, maintain consistent oil production rates before and after steam break through occurred. The **R65** had previously demonstrated its capability in other applications to manage multiphase flow without reductions in efficiency, including mixtures of oil, water, and steam.

The **R65** was hypothesized to delay or prevent the negative effects of steam flashing due to the slower, continuous flow of its progressing cavities that differ from the faster discontinuous flow as an RRL intakes fluid during the upstroke. The continuous flow of the **R65** with each stroke eliminates the cyclic pressure drop that encourages water to flash to steam.

FIELD RESULTS

The **R65** has been operated continuously for over 1 year and results have shown that the well has been pumped-off without interruptions or the need for interventions during this time. The **R65** has effectively prevented or handled steam breakthrough and maintained target production rates throughout varying temperatures and viscosities. The **R65** showed reliable and consistent production in the challenging steamflood environment, adapting to varying downhole conditions and maintaining a pumped-off well.

TECH REPORT

LOCATION

UNITED STATES

FLUID TYPE

67-97% WATER CUT

WELL TYPE

STEAM FLOOD

DOWNHOLE TEMPERATURE

65°C/140° F - 134°C/274° F

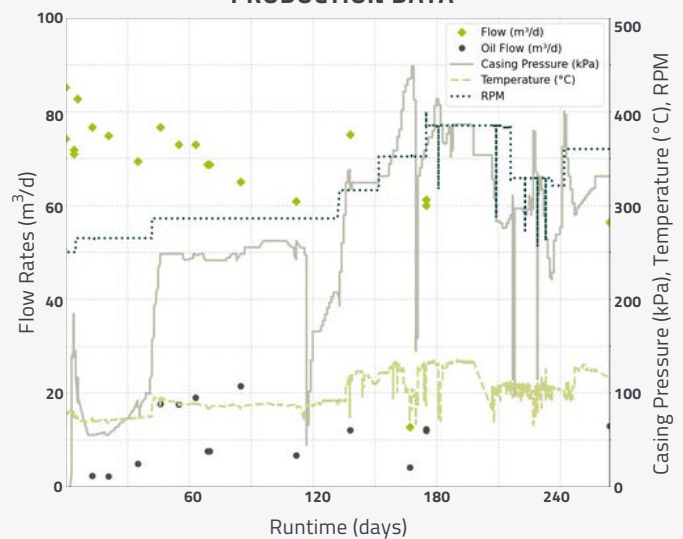
PUMP DEPTH

260M / 853FT

PRODUCT

R65-800

PRODUCTION DATA



PUMP CURVE VS. DOWNHOLE READING

