CHALLENGE

The client operates 200 wells in a field, with only two water injection wells being used to maintain pressure in one portion of the field. Both wells suffer from near-wellbore damage due to scale and suspended solids. To treat the problem, acid stims were conducted every 6 to 8 months, but with diminishing rate of returns. The client was looking to reduce workover frequency and to increase injection rates.

HIGHLIGHTS

Conventional oil field
Vertically drilled
Perforated
Hydraulically fractured

LOCATION

NW Alberta

CONDITIONS

Depth: 1,800 m (5,900 ft)
Temperature: 60 °C (140 °F)
Montney formation

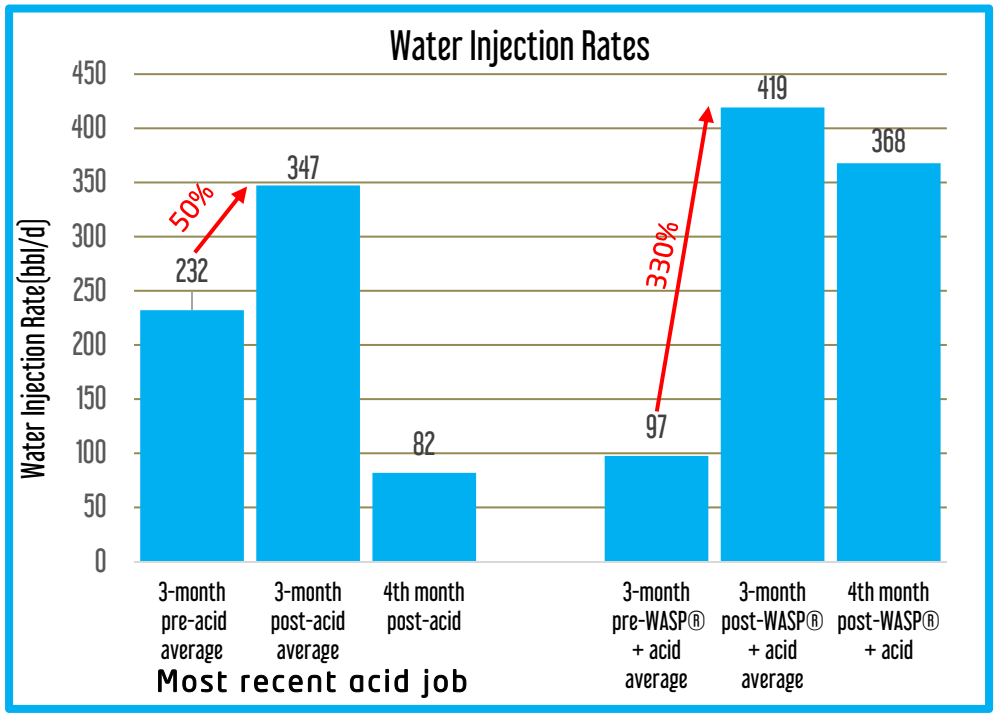
Injection Well

Chemical Treatment

OUTCOME

- The well saw an immediate increase in injection rates and a decrease in injection pressure
- The average injection rate increased from a 3-month average of 97 b/d to 419 b/d for the first 3 months after WASP® + Acid
- The increase was over 330%, compared to a 50% increase over 3 months for the last treatment done with acid alone

Over 330% increase in water injection rate with WASP®+Acid



SOLUTION

Improve connectivity to the reservoir by removing blockages using electro-hydraulic stimulation technology

- The Blue Spark WASP® 212 (Wireline Applied Stimulation Pulsing) slim tool was run through tubing on third-party E-Line, avoiding the need to pull tubing
- The perforated interval was 8.5 m in length and the stimulation was completed within an operating time of 5 hours
- WASP® cleared the blockages in the formation to provide more surface area for a chemical treatment to be more effective
- A mixture of solvent and acid was batched down the tubing of the well which was allowed to soak overnight
- The well was put back on injection and monitored

BLUESPARK