



CHALLENGE

The client operates a field where most wells have been producing for about 40 years. During that time, the oil production has gradually declined, but more recently the water cut has increased significantly. The client was looking for a way to identify the intervals still producing oil and then stimulate only those oil producing zones. Identifying any oil bearing zones that were missed in the original completion would be an added bonus.

HIGHLIGHTS

Conventional oil field
Vertically drilled
Perforated

LOCATION

Los Angeles Basin, California

CONDITIONS

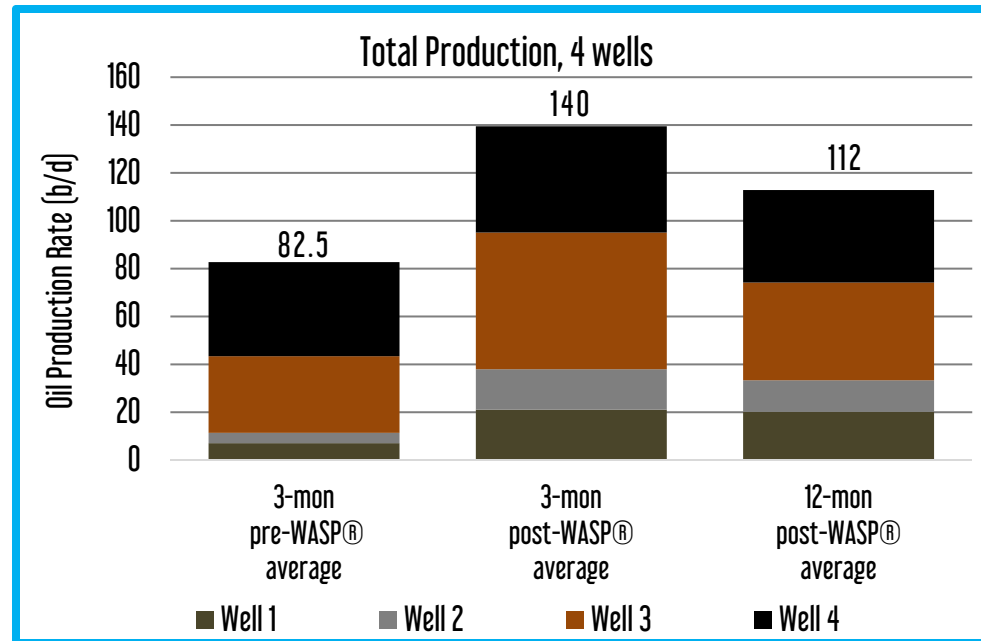
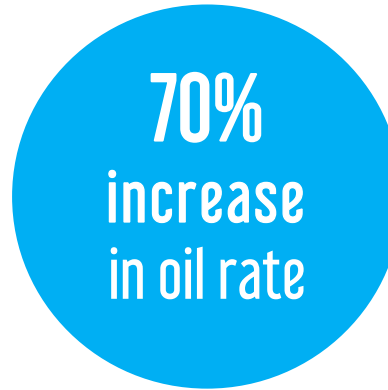
Depth: 4,500 ft (1,400 m)
Sandstone reservoir
Temperature: 150-200 °F (66-93 °C)



Producing Well

OUTCOME

- All wells saw an immediate increase in oil production
- The total oil rate for all 4 wells increased 70% for the first 3 months, while the total water decreased by 25%
- For the entire year post stimulation, the oil production rate averaged a 37% increase vs the 3-mon pre-stim rate. An extra 10,600 bbls of oil were produced in that year.



SOLUTION

Improve production in a mature reservoir by running a case hole neutron logging tool and the Blue Spark WASP[®] stimulation service.

- The client chose 4 wells that showed decreased oil production and increased water cut
- A cased hole neutron tool was run to identify the oil/water contact in each well. In Well #3, some bypassed pay was also identified.
- The Blue Spark WASP[®] 275 (Wireline Applied Stimulation Pulsing) tool was run on third-party E-Line and selectively stimulated only the oil-bearing intervals identified by the neutron log (including the bypassed pay zone in Well #3)
- The wells were put back on production and monitored

