

### CHALLENGE

The clients' well had initially been perforated and frac'd in the target zone. The well produced at 87% average water-cut for the first 2 years of production. Oil production was below other wells in the same pool and the well was shut-in. The client was receptive to trying a new type of stimulation to remediate any near-wellbore damage that could be causing the production decline.

#### HIGHLIGHTS

Sandstone  
Light Oil (40 API)  
Vertically drilled  
Perforated completion

#### LOCATION

NW Alberta, Canada

#### CONDITIONS

Depth: 1,300 m (4,300 ft)  
Temperature: 43°C (110°F)

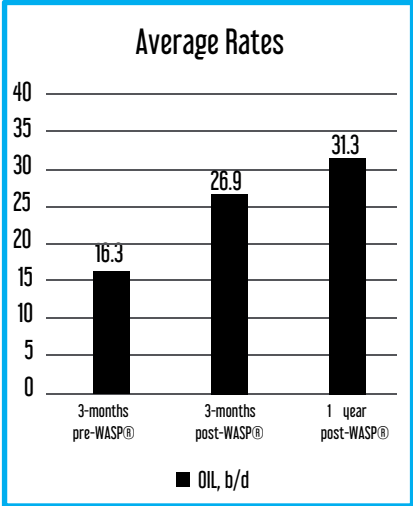


Producing Wells

### OUTCOME

- The well immediately produced oil at a higher rate than before being shut-in, with less water production
- The oil production increased from 16.3 b/d to 26.9 b/d, comparing 3-month pre to post WASP®
- The 1-year post-WASP® production average was even higher at 31.3 b/d
- The water-cut for the 1st year post-WASP® was down 6%

Oil production increased by:  
**65%** in the first 3-months  
**92%** for the first year



### SOLUTION

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

- Sandstone reservoir was treated with Blue Spark WASP® (Wireline Applied Stimulation Pulsing) after being shut-in for 10 months to re-initiate production.
- No special tools or equipment were required on location to complete the remediation operation, other than thirdparty E-Line.
- Approximately 5 m (16 ft) of perforated interval were treated with our wireline conveyed tool in one 8-hour day.
- Production rates and fluid levels were both monitored for comparison to pretreatment values.