

Case Study: CobraMax® DM service unlocks reservoir potential while reducing operational risks and uncertainties



Challenge

- An operator in the Marcellus shale was looking for an innovative method to fracture 30 intervals with maximum near-wellbore conductivity and diversion but with lower risks than conventional perf-and-plug methods

Solution

- Halliburton proposed its CobraMax® DM service to deliver maximum reservoir performance but optimal control to pilot proppant concentration for diversion and near-wellbore conductivity
- With CobraMax® DM, all the proppant is pumped in the coiled tubing while clean fracturing gel is pumped in the annulus tubing x coiled tubing

Results

- Time between treatment stages was reduced to about 40 minutes, compared to the 4 hours per stage using the conventional plug and perf. Operations were conducted in a continuous process in a single trip
- Indications of an early screen-out were mitigated by high-rate, low-concentration proppant slurry overflush of perforations using downhole mixing control, allowing the treatment to continue.
- One early screen-out did occur and was mitigated by circulating the excess slurry to surface with a total impact on process efficiency of less than 6 hours
- Horsepower requirements were reduced to 15,000 Hhp as compared to 30,000 Hhp required for conventional perf-and-plug process

Location: U.S. Land
Challenge: Near Wellbore Frac Connectivity