BLACK MAMBA ROD LIFT

REPORT 24.1

"ROD LIFT NOT AN OPTION" BECOMES OPTION AFTER 2+ YEARS RUN TIME WITH BLACK MAMBA

"GIVE THEM THE 51" THEY SAY (WHILE LAUGHING)

After Black Mamba's technical presentation at the Southwest Petroleum Short Course in Lubbock, TX, a world-wide producer with assets in the Permian Basin asked for a visit to their offices. We presented our design philosophy and product lineup to a team of 30 engineers which ultimately netted a multi-well trial.

Of those 3 wells, an "unpumpable well - the 51" was selected and Black Mamba provided a design featuring 7-per and 4-per guide configuration throughout the Weatherford rod string. Black Mamba's sinker rod (1" rod body, 3/4" pin with 7-guides per rod) was used at the bottom of the well to accommodate the compression, then 4-per and 7-per as needed for side-load and DLS. 2 years later, the well encountered a 3/4" 4 per rod part in the non-high DLS area.

CHALLENGE

Wellbore geometry and a 1.5" pump created sideloads exceeding 900 lbf/rod at 1,400', with other significant spikes around 3,000' and 6,500'. The operator truly thought the 10.35 degree dog-leg at 1,400' would prohibit rod lift from being a reliable source of artificial lift.

SOLUTION

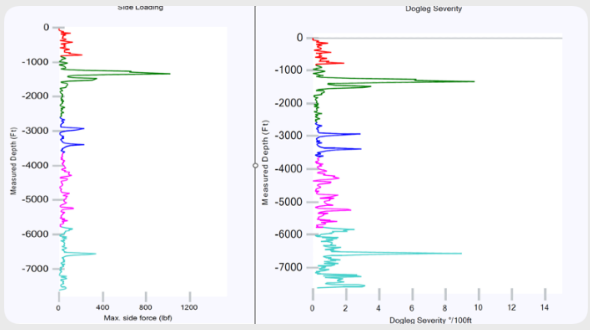
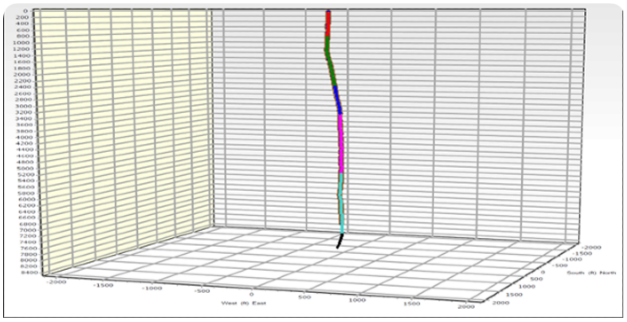
Black Mamba was provided full control of string design on behalf of the operator. A 1.5" pump was used producing ~300 bfpd at 7.7 SPM and a surface stroke length of 192". 7-per guide configuration addressed the high side-load and compression areas, with 4-per throughout the rest of the design supporting the lower-risk areas. Hyosung's polyketone material has industry leading, 3rd party ASTM G133 validated wear and friction properties.

RESULTS

After 2+ years of run time with polished rod velocities exceeding historical recommended best practices, a 3/4" 4-per sucker rod failed due to rod part. After wear inspection Minimal rod replacement at intervention, and NO tubing replacement needed in the high DLS area at the time of service. This test well along with 50+ others over time is why this major has the confidence and trust of Black Mamba.<p>

Today (2025) this operator uses Black Mamba for nearly every single conversion and rod-up.

PROJECT DESCRIPTION

LOCATION:
Midland

CUSTOMER TYPE:	Major Major
PRODUCTION:	300 bfpd
INSTALL DATE:	Summer 2022
CURRENT DATE:	Fall 2024
RUN TIME:	25 months