BLACK MAMBA ROD LIFT

REPORT 23.2

PUSHING THE LIMIT - MAJOR OPERATOR AND BLACK MAMBA TEAM UP WITH COMPLETE ROD CONTROL

HIGH SPEED, HIGH VOLUME PUMPING - 2000 IPM POLISHED ROD VELOCITY

An engineer at a major operator had already gained faith in Black Mamba's rod guide products through many prior installs. In Fall of 2021, Black Mamba approached this engineer and organization about pushing the limit to prove sucker rod stability with Black Mamba, even in high rod string velocities. It is understood that with increased rod string velocity comes increased risk of rod string failure due to sucker rod instability and buckling (compression). If the rod string is centralized from end-to-end and controlled, how much cyclic compression can be put on the rod string, reliably?

CHALLENGE

2,000 inches per minute is about 40% faster than the industry *best practices* threshold. This design was meant for one thing in mind - ***how much fluid can I produce with a standard rod string design, utilizing Black Mamba's unmatched sucker rod stability?***

SOLUTION

Rod string overtravel is a favorable condition created from high inertia dynamic loads of the rod string where fiberglass rods stretch and create longer plunger travel than the surface stroke. For this design, 1.250" Superod fiberglass sucker rods were the top half of the design, with Black Mamba's 7/8" and 1" sucker rod, then Black Mamba's Sinker Rod to the pump.

9 SPM, 205" stroke, 800 bfpd, screaming.

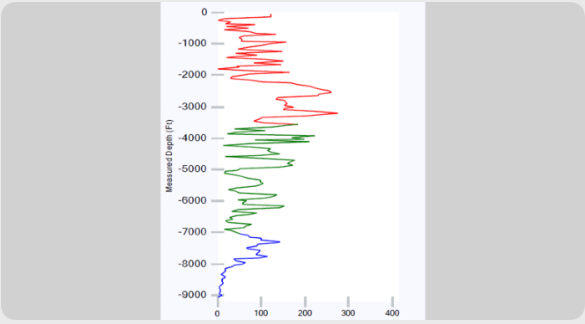
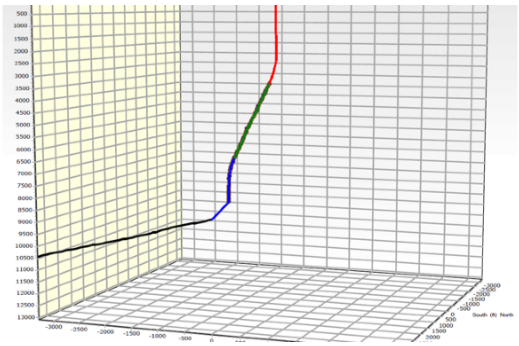
RESULTS

After a few months of success under this high speed, high volume pumping, **the operator duplicated this process over and over again.**

Attached is the RodStar design for a request for another Black Mamba CRC design. We are going to be pushing the envelope again on this one like we did on the last design. **The last design we are yielding great fluid rates so far: 700-720 bbls total fluid at 8.4 SPM**

The operator has 30+ installs deployed with similar system and string designs.

PROJECT DESCRIPTION

LOCATION:
Permian, TX

CUSTOMER TYPE:	Major
PRODUCTION:	800 bfpd
INSTALL DATE:	Q1 2022
CURRENT DATE:	Q2 2022
RUN TIME:	14 months