BLACK MAMBA ROD LIFT

REPORT 25.1

540 - DAY REVIEW OF THE FIRST-EVER BLACK MAMBA GUIDED FIBERGLASS ROD INSTALLATION

BLACK MAMBA OFFICIALLY COMMERCIALIZES ITS GUIDED FIBERGLASS

After extensive success with Black Mamba's guided steel offering, a major operator requested Black Mamba to develop an application and method for fitting our patented Black Mamba single helical fin guides onto fiberglass sucker rods.

The trial was an overwhelming success (35x ROI), further catapulting Black Mamba's product and design philosophy to additional applications.

CHALLENGE

Prior installations of fiberglass rod underperformed due to severe inclination and side load. Traditional guides in this application offered minimal support, resulting in an average mean time to failure (MTF) of ~150 days.

The repeat failures of fiberglass sucker rod driven by the excessive side-load and deviation led to significant negative financial impact, with and average annualized intervention cost of over $400,000.

SOLUTION

The Operator and Black Mamba selected a candidate well and collaboratively developed a rod string design which specifically addressed prior operation challenges with a well-engineered design for the first deployment of Black Mamba guided fiberglass sucker rod. 10 guides-per-rod configuration was developed and supported by Endurance Lift Solutions, first run utilizing their S300 rod.

RESULTS

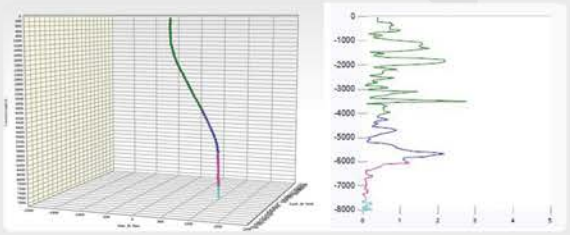
Having extensive failure history with other vendors and designs, the results achieved by the Operator with Black Mamba's well designs and rod guide solutions were staggering, **delivering remarkable operational and financial outcomes exceeding 35x ROI**. Throughout the 540-day run time, several more installs were deployed with the same organziation, all featuring favorable results. As a result, Black Mamba has been able to commercialize guided fiberglass offering with confidence for any and all customers. Endurance Lift is now stocking Black Mamba's guided glass in their yards throughout North America.

Beyond a long run time - the first intervention took place after 540-days of pumping - all for a BHA inspection and pump change. No observed tubing wear, no tubing joint changes. Every single rod was rerun, guided fiberglass and guided steel, all with Black Mamba's patented helical centralizer.

PROJECT DESCRIPTION

LOCATION:
Permain Basin

CUSTOMER TYPE:	Major Operator
PRODUCTION:	300 bfpd, 140 bopd
INSTALL DATE:	March 2023
CURRENT DATE:	September 2024
RUN TIME:	+540 days



KPI	Before	After	Improvement
Well Uptime (MTBF)	~150 Days	540 Days	+390 Days
Avg. Annualized Workover & Rod Lift Costs	$109,500	$30,417	+$79,083
Avg. Annualized Oil Production Loss	5,475 Bbls	1,521 Bbls	+3,954 Bbls

Actual rods from location, pulled and rerun.