

CASE STUDY

MICROGUIDE LOG REVEALS SIGNIFICANT DISCREPANCY IN BOTTOMHOLE LOCATION WHILE ANALYZING ESP PLACEMENT

▶ TECHNOLOGY

- MicroGuide™ wellbore tortuosity logs

▶ APPLICATION

- Artificial Lift: ESP Conversion from Gas Lift

▶ LOCATION

- West Texas

INDUSTRY CHALLENGE + OBJECTIVE

An operator in the Permian Basin was converting a gas lift installation to ESP due to a decrease in production. Per the operator's standard procedure, a MicroGuide Log was obtained to assist the placement of the ESP and cable clamps.

When doing a typical gross error detection against the MWD, it was observed that the wellbore diverged significantly starting at a shallow depth down to the tie in point at 4617' (red trace in figure 1). Upon further investigation, it was revealed that the Azimuth (red trace in figure 2) from a competitor's gyro survey was the cause of the divergence. The well was displaced over 42' from its actual location at the tie in point for the MWD.

TECHNOLOGY + SERVICE SOLUTION

- MicroGuide logging analysis to provide true insight into tortuosity over the entire wellbore.
- High definition measurements provided a detailed picture of true downhole conditions and bottom hole location.

RESULTS + VALUE DELIVERED

- Gyrodata QA/QC procedures identified inaccurate and unreliable information from a competitor's survey significantly changing the position of the wellbore.
- MicroGuide log analysis identified a deeper section of the wellbore for optimal ESP placement resulting more efficient hydrocarbon recovery, lower operating cost and longer operating life of the pump.
- Better ESP placement is estimated to have saved \$28,000 for the operator in this example.

Figure 1

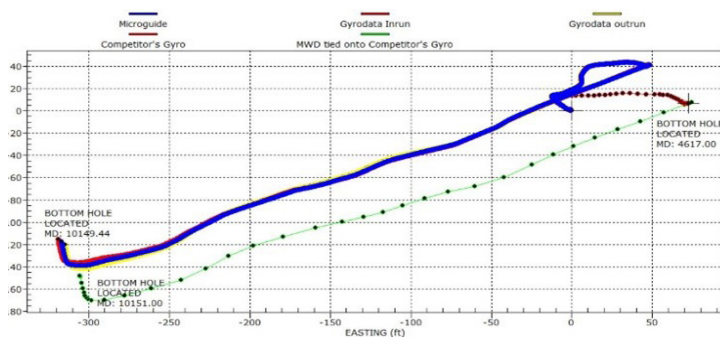


Figure 2

