

Implementation of Enhanced Maintenance Workflow

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Taqa well service

Abstract

Objective/Scope: Equipment maintenance is of crucial importance to the overall success of any oilfield operation. This paper is going to discuss improvements, which were implemented on the maintenance workflow of a multidisciplinary operation, in addition to a review of the maintenance performance KPI's before and after implementing the enhanced maintenance procedures. **Method & Procedures:** The method followed in this paper started by analyzing large historical maintenance datasets covering TAQA maintenance history for 12 months in order to identify key parameters and metrics affecting maintenance efficiency and review/upgrade the existing maintenance workflow. Key metrics were identified, such as, logistics of mobilization from the TAQA base to wellsite, troubleshooting duration and communication/data exchanged between maintenance technicians at wellsite and maintenance supervisors at TAQA base. Another important parameter was failure investigation and mitigation protocols. The paper then evaluate (6 months) datasets gathered after implementing the new maintenance workflow and compare maintenance efficiency before and after implementing the new maintenance workflow. The comparison covered different angles all related to the previously identified key maintenance metrics. **Result, Observations, Conclusions:** One of the main observations was identifying troubleshooting duration as the most important parameter influencing the maintenance workflow and implementing the new workflow resulted in a reduction of 30 -40 % in troubleshooting duration. Furthermore, based on the comparison of the dataset before and after upgrading the maintenance workflow, a reduction, as high as, 82 % was observed in NPT hours. Additionally, it was also observed that improved post failure investigations and reports resulted in better planning for mitigating the failures. **Additive Information:** This paper provides a quantitative review of case study covering large maintenance datasets and captures maintenance efficiency key metrics identifying the significance of each parameter.