



SPARTAN JAVELIN WITH FRACLOCK WELLHEAD CONNECTIONS:  
CASE STUDY #3: HAYNESVILLE SHALE POST JOB RECAP  
(SPOT FRAC FLEET)



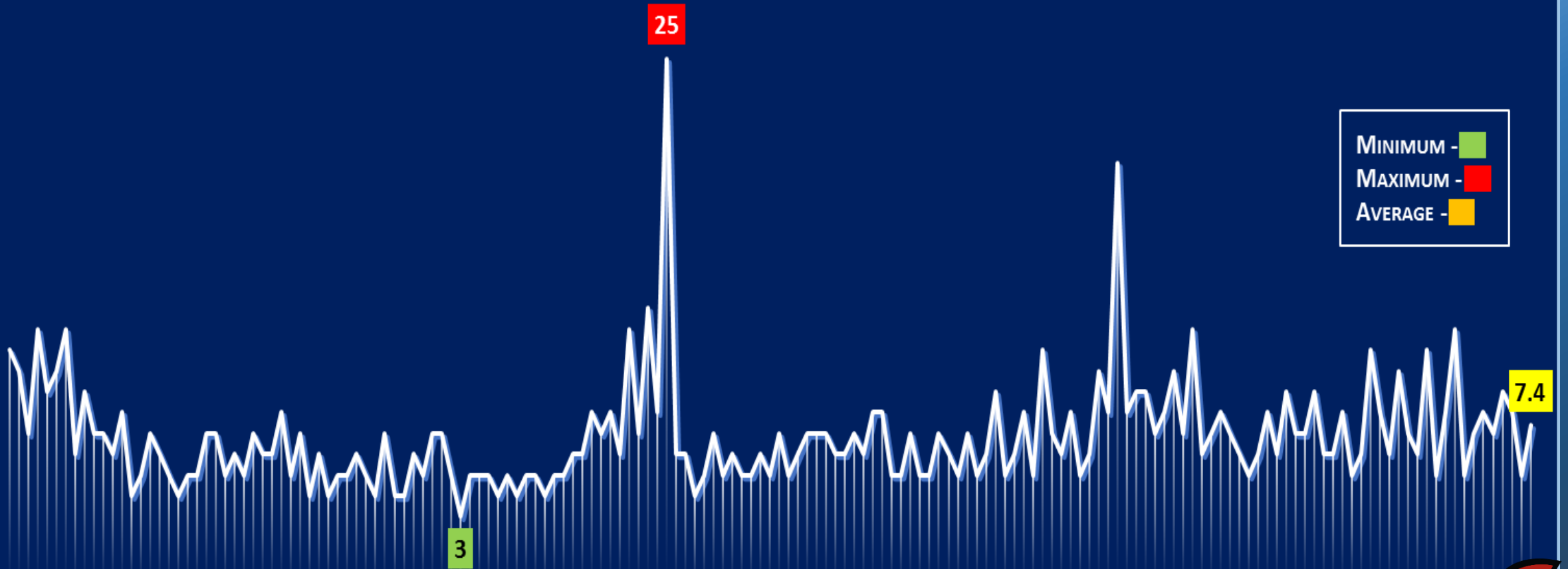


# JOB SUMMARY...

- **AREA OF OPERATION: HAYNESVILLE SHALE**
- **NUMBER OF STAGES: 162**
- **NUMBER OF WELLS: 3**
- **WELL SPACING: 30'**
- **TOTAL SAND PUMPED: 90,835,471 LBS.**
- **AVERAGE SAND PER STAGE: 560,713 LBS.**
- **SAND CONCENTRATION PER STAGE: 3.0 PPG**
- **TOTAL PUMP TIME: 441.7 HOURS**
- **AVERAGE STAGES PUMPER PER DAY: 6.1 STAGES**
- **AVERAGE PUMP TIME PER STAGE: 2.7 HOURS**
- **AVERAGE JAVELIN TRANSITION TIME: 7.4 MIN.**
- **AVERAGE PUMP RATE: 83.4 BPM**
- **MAX PUMP RATE: 96.8 BPM**
- **AVERAGE TREATING PRESSURE: 12,058 PSI**
- **MAX TREATING PRESSURE: 12,841 PSI**
- **AVERAGE HORSEPOWER: 24,648**
- **MAX HORSEPOWER: 28,762**

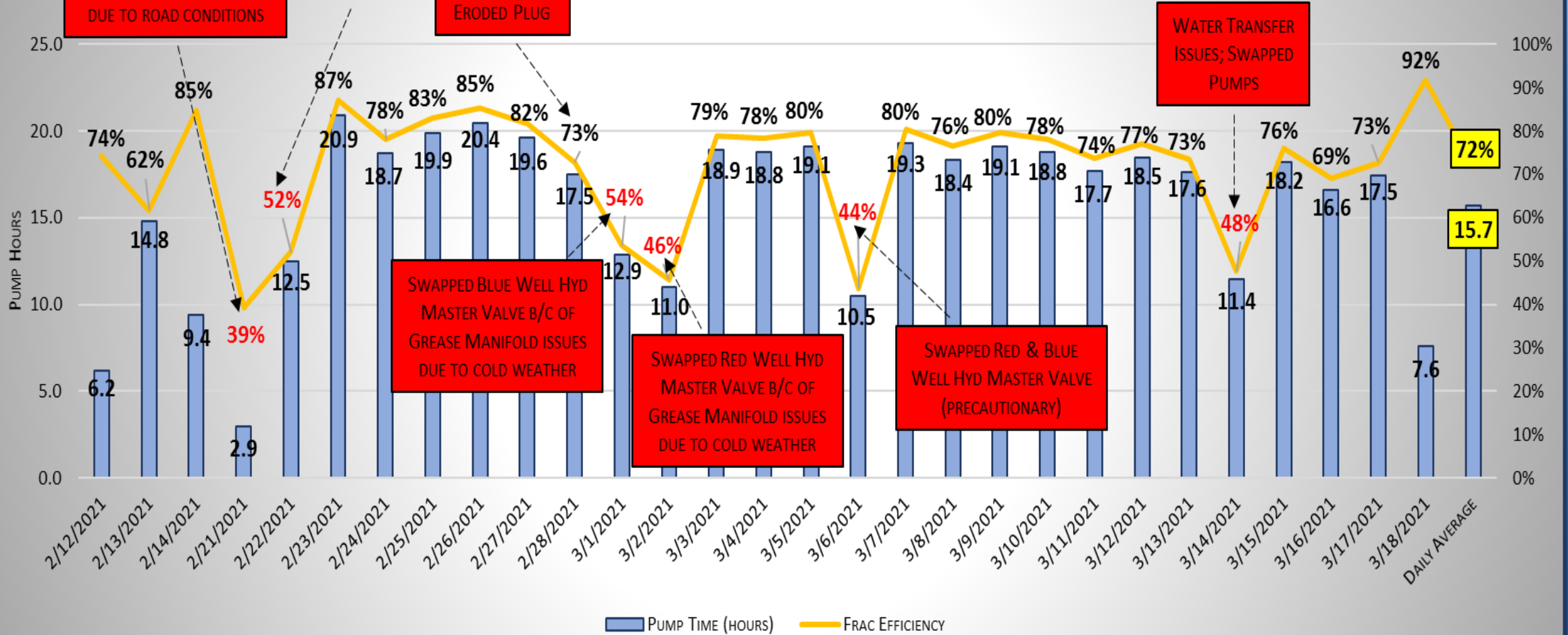


# SPARTAN JAVELIN FIELD CASE STUDY #3: HAYNESVILLE SHALE TRANSITION TIMES





## JAVELIN CASE STUDY #3: HAYNESVILLE SHALE FRAC EFFICIENCY



- **75%+ FRAC EFFICIENCY ON 16 OF 29 FRAC DAYS, OR 55% OF THE TIME**
- **19+ PUMP HOURS 7 OUT OF 25 FULL DAYS (28% OF THE TIME) WITH A HIGH OF 20.9 PUMPING HOURS ON 2/23**
- **72% AVERAGE DAILY FRAC EFFICIENCY**

