**CHALLENGES**

- A high water-cut well was experiencing sucker-rod fractures/breaks due to:
  - Corrosion pitting
  - High tensile loads
  - Deviated wellbore
- Needed increased sucker-rod ductility with no sacrifice of rod strength
- Average run time before failures due to corrosion pitting was 126 days
- Tried different sucker-rod solutions, but average run time was still only 6 months (180 days)

**SOLUTIONS**

- A custom-designed rod and guide string was installed
  - Features Norris Corrosion Service Sucker Rods
    - Corrosion Service Sucker Rods have high ductility and high tensile strength
    - Constructed of special alloy steel and designed heat treatment that resists corrosion while maintaining tensile strength

**RESULTS**

- Norris Corrosion Service Sucker Rods were installed on March 7, 2019
- Well has operated for nearly 400 days continuously, 200% to 300% longer than previous average run times
- No well intervention has been needed due to sucker-rod or tubing failures
- Optimized sucker-rod and guide-string design has also mitigated issues with:
  - Paraffin buildup
  - Side-loading
  - Buckling

**WELL INFORMATION**

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<thead>
<tr>
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<tbody>
<tr>
<td>Tubing Size</td>
<td>73 mm</td>
<td>S.G. Water</td>
<td>1.03</td>
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<tr>
<td>Pump Intake Pressure</td>
<td>689 Kpa</td>
<td>CO2</td>
<td>5,100 ppm</td>
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<tr>
<td>Water Cut</td>
<td>99%</td>
<td>PSN Depth</td>
<td>1252 M</td>
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<tr>
<td>H2S</td>
<td>0%</td>
<td>Total Production</td>
<td>33 M^3/D @ 80% Efficiency</td>
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<tr>
<td>Anchor Depth</td>
<td>1174.6 M</td>
<td>Oil Degree</td>
<td>35 API</td>
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