Plunger Lift Operational Problems

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1. Plunger performance is dependent on the operators interaction with all the elements: the plunger, surface equipment, down hole assembly, produced fluids, wellbore, and the reservoir.

2. We will identify common problems encountered in operation plunger lifted wells.

The breakout session’s purposes is to identify various problems encountered in plunger lifted wells, plus obtain input from the session participants of their solutions implemented to solve the trouble.
PLUNGER LIFT Problems: Hardware

1. Incentive is to sell equipment and do installs. Service and support often is not available.
2. Short Lubricator Spring Life
3. Short Plunger Life
4. No standing valve or Leaky standing valve have been reported to account for 80% of all plunger lift failures
5. Solid Plungers are often inefficient
6. Bypass plungers are very underutilized
7. One of the biggest issues is incorrect measurement; Often EFM and RTU changes result in erroneous gas measurement
### Problems you face in Optimizing/analysis of plunger lift installations OR identifying a liquid loaded well

1. Rely on information given to me
2. Lack of data.
3. Interpretation of the data.
4. Plunger fall time
   - if plunger is making to bottom
   - rate it is falling in relation to gas flow.
5. Plunger speed
6. Dry runs
7. Plunger not bringing fluid/not traveling
8. Shut-in time to bring fluids to surface
Plunger Lift Problems - Optimization

1. How to Optimize Well
2. Not knowing where the plunger is
3. What is the plunger doing during a cycle
4. Not knowing what is going on down hole
5. Getting the plunger box programmed
6. Getting the plunger to bottom shut off time
7. Not have the well shut in to long or short
8. Flowing the well to short or to long.
9. Getting the best cycles on a well.
1. Need to know if plunger makes it to bottom with sand and salt in tubing.
2. Hydrates in well bore.
3. Freezing.
4. Large water rates.
5. Liquid loading and sand.
6. Liquids on wells and loading up.
7. Liquid loading, freezing, low pressure.
1. Operator time
2. Do not maintain up-to-date service/inspection/maintenance records.
3. Some operators are uncomfortable with plunger lift
4. Pumpers set controller for their convenience.
5. Use general settings for all plunger lift gas wells with no concern for optimization.
6. Getting pumpers and foreman to buy into recommendation. Hard to convince them.
7. Employees not knowing how plunger operates or how to adjust accordingly.
8. Training often to General – More Job specific training needed.
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