"Rods Specifically for PCP Applications".

Biography:

Ross Pliska is currently the Technical Services Manager for Alberta Oil Tool, the only Canadian manufacturer of sucker rods. He received his training in Mechanical Engineering at the University of Alberta and subsequently trained to become a Professional Engineer while working directly with sucker rod manufacturing and applications. As Technical Services Manager at AOT he is the responsible for the Engineering functions related to the manufacturing of sucker rods. As well, He oversees the provision of technical support in the areas of string design and well optimization to a wide variety of production personnel. Much of his experience providing application support has been focused on Progressing Cavity Pumping applications – evaluating string designs from a strength, production, and longevity aspects with the intent of developing best practices that are truly optimal with regards to rod string design.

Abstract:

The standard API sucker rod was designed specifically for use in conventional, beam pumping applications. In PCP applications, however, the entire system is different from the intended use of the standard sucker rod. The most obvious difference is the dominant method of stress application - torque as opposed to axial stress - however there are other differences which must be considered. In a PCP application, for example, flow and pressure losses in the pumping system can have a drastic effect on the overall system efficiency. In addition, fatigue caused by rotational bending should be considered when selecting rods in a PCP system. Because of these, and other factors, standard sucker rods designed for beam pumping applications are not the optimum solution for connecting a pump to surface in a PCP application. There have been rods designed specifically for the PC Pump application. The purpose of this presentation is to outline the differences in design and identify the benefits of using rods specifically designed for a PCP application.