

From: Ole B. Rygg
 Sent: Sun May 16 18:40:08 2010
 To: Patteson, Mark R
 Cc: MC252_Email_Retention; Mix, Kurt
 Subject: RE: Summary on updated models
 Importance: Normal
 Attachments: image001.jpg; Shut-in flow outside 3000 3800 psi - Bullheading.pptx

This is assuming the choke is deep. If the choke is shallow the shut-in time will be short and there will not be possible to do a bullheading/dynamic kill with the pressure restrictions on the wellhead/casing/burst. Based on the last plot it is on the border line pumping 20 bpm to be able to kill the well. This will increase with higher flow rate/large equivalent hole in the stack.

Please note that if the reduction in the wellhead pressure is due to an increased flow rate since the restrictions at the wellhead is giving away, we have a different scenario.

Please note that if the reduction in the wellhead pressure is due to an increased flow rate since the restrictions at the wellhead is giving away, we have a different scenario. This means a large hole in the BOP stack and less chance of ever being able to do a dynamic top kill, since the required rate through the stack to achieve the required pressure drop is too high.

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