

From: McWhorter, David J. [/O=CCC/OU=CCC-CLY-BACK
END/CN=RECIPIENTS/CN=MCWHORTERDJ]
To: Bourgeois, Russell; King, Don
Cc: Corkhill, John; Whitby, Mel
Subject: RE: Testing Shear/Blind

5/14/2010 6:08
PM

Attachments:

yes

From: Bourgeois, Russell
Sent: Friday, May 14, 2010 6:04 PM
To: McWhorter, David J.; King, Don
Cc: Corkhill, John; Whitby, Mel
Subject: RE: Testing Shear/Blind

Thanks David. Can I give all or part of your explanation below to [REDACTED]? I think we should give them something to substantiate our stance on shearing with well bore pressure applied.

Russell

From: McWhorter, David J.
Sent: Friday, May 14, 2010 5:48 PM
To: King, Don; Bourgeois, Russell
Cc: Corkhill, John; Whitby, Mel
Subject: RE: Testing Shear/Blind

We do not shear test with pressure in the bore. No need to do that, besides it would be dangerous and expensive and require large accumulators to absorb the displaced volume without creating a pressure intensifier when the rams closed. Instead, we do shear tests at ambient pressure and then add on a calculated value on top of whatever closing pressure is required to compensate for wellbore pressure. This is a straightforward calculation that is based on the closing ratio of the particular BOP. Should do at least three shear tests and chart record the closing pressures. Take the highest one (not an average) and add to it the following:

$(\text{Wellbore Pressure})/(\text{BOP's Closing Ratio})$

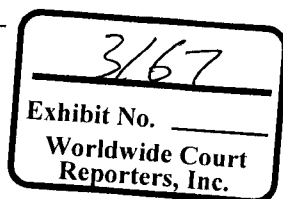
For example for a TL BOP with no booster the closing ratio is 6.7:1. If wellbore pressure is 5000 psi then you would add $(5000)/(6.7) = 746$ psi to whatever closing pressure you got. Looks like we will need to get an EB with this sort of procedure written up...John, please do this Monday. Add it to EB 702. Will need to include a warning that great caution should be taken if this number exceeds 90% of the rated bonnet operating pressure...perhaps require more tests if exceeds 90% of bonnet's capacity.

Also, if shear ram in top cavity no need to use wellbore pressure greater than rated working pressure of annulars.

Cameron will certify that a test conducted in this way will give a shear value equal to one conducted with actual wellbore pressure present.

David

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From: King, Don
Sent: Friday, May 14, 2010 5:19 PM
To: Bourgeois, Russell; McWhorter, David J.
Subject: Re: Testing Shear/Blind

Russell
We are being hit by a lot of folks on this all at once.
I am ok with it as long as it is done safely to contain the pressure being applied.
On paper we state it won't shear it, but they want to try anyway. If their equipment and there is risk to damages to the bop's, and we won't be responsible for those damages if they incur any.
I have to defer this to David McWhorter for final ok due to the extenuating circumstances ongoing today.
David, your thoughts, again I am ok with it and I know Russell will handle it safely and it a customer response step.
Thanks...Don

Sent from my BlackBerry Wireless Handheld

From: Bourgeois, Russell
To: King, Don
Sent: Fri May 14 17:15:50 2010
Subject: FW: Testing Shear/Blind

Don: Please see below. [REDACTED] wants to perform a shear test in our facility. If you agree to this, we would do it in Patterson. I don't have a problem with this as long as we do not deviate from Cameron's recommended procedures for shearing pipe. What are your thoughts?

Thanks,

Russell

From: [REDACTED]
To: Darce, Eddie
Cc: [REDACTED]
Sent: Fri May 14 16:54:17 2010
Subject: Testing Shear/Blind
Hi Eddie,

We are having conversations with [REDACTED] about the shear capabilities of 21-1/4" 10,000# CIW Type U BOP with SBR Rams with Standard Shear Bonnets. The MMS has said that this blowout preventer needs to shear the pipe that [REDACTED] is using with well bore pressure applied. Using Cameron's Shearing Capabilities bulletin's formulas this blowout preventer is not capable. We have been asked to do a physical shear test with pressure on the blowout preventer to possibly convince MMS that the blowout preventer may be capable of shearing despite the calculations on paper.

Would it be possible for Cameron to perform this test at a Cameron facility? The test would consist of stacking 2 - 21-1/4" 10,000# Type U Singles, the bottom blowout preventer to have the shear/blind rams and to top to have 6-5/8" Rams. We would have a test flange on the bottom of the shear/blind single. A joint of 6-5/8" 27.70# S-135 drill pipe would be placed inside the blowout preventers and the 6-5/8" rams closed. Well bore pressure would then be put inside the blowout preventers and an attempt would be made to shear the pipe. This is what we came up with as a way to do this but can not do it in our shop. We would like to hear of any suggestions Cameron would have.

People on hand for this test would be [REDACTED]. Consultants from [REDACTED]. People from [REDACTED], a third part monitor of [REDACTED]'s choosing and possible people from the MMS. I need to know something quick on this as they are waiting for me to call them back.

Thanks,
[REDACTED]

Quality Control Manager



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