

From: Albertin, Martin L.

Sent: Fri Apr 02 16:34:40 2010

To: Morel, Brian P; LeBleu, John B; Bellow, Jonathan M; Bodek, Robert; Hafle, Mark E; Cocalles, Brett W; Ritchie, Bryan; Bondurant, Charles H; Paine, Kate (QuaDril Energy LT); Skripnikova, Galina

Cc: Wagner, Bruce E; Vinson, Graham (Pinky)

Subject: RE: Macondo 9-78 LOT FIT Worksheet.xls

Importance: Normal

Team,

Either the rock, or the casing and cement, are very strong! I think it is safe to say that this test is not indicative of the true fracture strength of the average shale that we are about to drill - which I expect is much lower than this FIT suggests. Possible explanations for LOT/FIT tests which are much higher than expected:

- tectonic stress increasing horizontal stress
- high formation tensile strength (more likely to see this when little section is exposed beneath the shoe)
- error in pore pressure and/or overburden model
- erroneous test

We can't get pore pressure high enough to explain the test, and I think given high pore pressure and low effective stress, it is unlikely that the overburden error would be in the right direction (I'd expect the average density to be lower than modelled, not higher). It is hard to make a case for any substantial compressional tectonic forces acting on the wellbore - and even if we did see thrust faults, I wouldn't expect the LOT to be any higher than overburden. I think the most likely explanation is that we have tested a shale that has very high tensile strength, or we have tested cement/casing.

At any rate, we are probably all on the same page here: we should manage drilling this last hole section with the expectation that the shales will fail at about the predicted values - less than overburden - which is about 15.5 PPG at the shoe.

Marty

-----Original Message-----

From: Morel, Brian P

Sent: Friday, April 02, 2010 11:05 AM

To: Walz, Gregory S; LeBleu, John B; Bellow, Jonathan M; Bodek, Robert; Hafle, Mark E; Cocalles, Brett W; Albertin, Martin L.; Ritchie, Bryan; Bondurant, Charles H

Subject: FW: Macondo 9-78 LOT FIT Worksheet.xls

FYI - Please forward to anyone else who might be interested. We stopped with an FIT instead of taking it to LOT, due to the casing only having been tested to 1500 psi.

Thanks

Brian

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