

**From:** Merrill, Robert C  
**Sent:** Wed Jul 07 15:31:42 2010  
**To:** Willson, Stephen SM; McAughan, Kelly  
**Subject:** RE: Macondo RSWC PVC comparison  
**Importance:** Normal

Me too.

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**From:** Willson, Stephen SM  
**Sent:** Wednesday, July 07, 2010 10:26 AM  
**To:** McAughan, Kelly, Merrill, Robert C  
**Subject:** RE: Macondo RSWC PVC comparison  
That sounds very reasonable to me, Kelly.  
Steve

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**From:** McAughan, Kelly  
**Sent:** Wednesday, July 07, 2010 10:24 AM  
**To:** Willson, Stephen SM; Merrill, Robert C  
**Subject:** RE: Macondo RSWC PVC comparison

How about we use 6-12-18. Then we keep the 6 that we originally had and honors side wall data - then multiple it by a factor of 2 and 3. Is that reasonable? I even hate to go as high as 18 because pre-drill estimates show with lower porosity and higher burial depths that we would have lower compressibility than our neighboring Isabella/Santa Cruz. See attached.

<< File: Macondo PVC.ZIP >>

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**From:** Willson, Stephen SM  
**Sent:** Wednesday, July 07, 2010 9:23 AM  
**To:** Merrill, Robert C; McAughan, Kelly  
**Subject:** Macondo RSWC PVC comparison  
<< File: Macondo RSWC PVC comparison.ppt >>

Dear Bob & Kelly:

Attached is a plot that shows the Macondo RSWC PVC test results in terms of porosity vs. vertical effective stress (the change in vertical effective stress being equivalent to depletion). Also shown are all of our uniaxial strain compaction tests from elsewhere in the Na Kika area (plus a few other analogues). The Macondo PVC tests (on horizontal RSWC) exhibit low compressibility (about 5 microsips), but are not wholly inconsistent with the overall trend of stiffer-acting formations. I have also drawn a family of curves from one of the Macondo tests that correspond to a range of higher PVC values. If one made a Fourier / Kepler comparison, then

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you could argue for a very high compressibility. An Isabella / Santa Cruz comparison would put you at 15 microsips or so.

So 15 could be a reasonable compromise if you wish, with 20 as an upside and 5 microsips as a downside?

Do you think this would be reasonable? Please feel free to make your own assessment of this.

Steve

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