From: Lockett, Tim
Sent: Mon May 03 07:12:34 2010
To: Saidi, Farah
Subject: RE: Re: Olga Model Input
Importance: Normal

Farah

Pipesim can do ok with the well. Where it falls down is when/if we want to have a wellhead choke point (eg crimp) and then couple on a downstream pipe.

Also, if we get into questions of 'warm-up' of the rock over the 10 days of production so far then it would have ot be OLGA.

Tim

From: Saidi, Farah
Sent: 02 May 2010 17:42
To: Lockett, Tim
Subject: RE: Re: Olga Model Input

Tim,

Based on what you have heard, do you really think we must use OLGA or can we get good estimation with PIPESIM considering all the assumptions we are making.

Regards,

Farah Saidi

GOM SPU Flow Assurance Technical Authority

BP

Office 281-366-5746

Cell   832-978-4121

<< OLE Object: Picture (Metafile) >>

From: Lockett, Tim
Sent: Sunday, May 02, 2010 11:01 AM
To: Wang, Yun
Cc: Liao, Tony T; Mason, Mike C; Cecil, Chris; Saidi, Farah; Sweeney, Frank M
Subject: RE: Re: Olga Model Input

Yun

Thanks for the fdb file. Please note that I am using PVTSim18. I believe Farah also has this version.

From our telephone discussion, the following items need to be addressed to improve the OLGA well model. In the interest of getting this model over to you now that I have an internet connection I have not done these changes but I have indicated which items I have done ...

- PVTSim -> updated tab file. I have prepared a new tab file (attached). This makes about 4F reduction in maximum tubing head temperature from the previous fluid file.

<< File: Horizon-2phase-2May10.tal >> << File: Horizon-2phase-2May10.ZIP >>

- Geothermal temperature gradient to be updated from linear (not done yet)

- Reservoir pressure set to 11850 psia (not done yet, set at 12000 psia)

- Reservoir temperature set to 240F (not done yet, set at 243F)

- Inflow PI set at 50 bbl/d/psi (not done yet, set at 10)
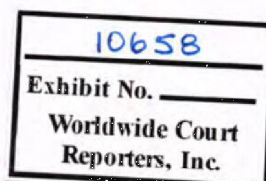
BP-HZN-2179MDL06007479

BPD406-002852

TREX 010658.0001

- Make tubing description (and thermal modelling of annuli) consistent with completion diagram (not done yet. The tubing is modelled as a 3 section vertical pipe with internal diameters of 5.625 inch then 3 inch, then 4.78 inch).
  << File: HORIZON-Uvalue-Wellonly-243F.ZIP >> << File: HORIZON-Wall-Wellonly-243F.ZIP >>
I am including both a U-value model (currently set to 2 BTU/hr/ft2/F) and one where the thermal model is a Wall (currently set to Steel and then Rock layers, but this can be made as complicated as we have data for).
I will be out of contact now for the evening and overnight. I will check emails first thing tomorrow morning to see what remains to be done (if anything).
Best regards

Tim

From: Wang, Yun
Sent: 02 May 2010 16:10
To: Lockett, Tim
Cc: Liao, Tony T; Mason, Mike C; Cecil, Chris; Saidi, Farah; Sweeney, Frank M
Subject: Re: Olga Model Input

Tim and Farah,

Please use the information below in your Olga model.
  << File: Preliminary_EOS.fdb >>   << File: Macondo Post Well Temperatures TVDSS.xls >> << File: 36126-53 Preliminary Data_Viscosity.xls >>

Yun Wang, Ph.D.

Complex Fluids CoP Leader

Reservoir Management Specialist Technical Support

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Complex Fluids Community of Practice:

http://ssw.bpweb.bp.com/Networks/ReservoirFluids/tabid/885/Default.aspx