

**To:** get2steph@me.com[get2steph@me.com]  
**From:** Walker, Al  
**Sent:** Sun 5/2/2010 10:43:45 PM  
**Importance:** Normal  
**Subject:** Fw: Macondo

Whew...

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**From:** Reeves, Bobby  
**To:** Walker, Al; Hackett, Jim  
**Sent:** Sun May 02 17:34:05 2010  
**Subject:** FW: Macondo

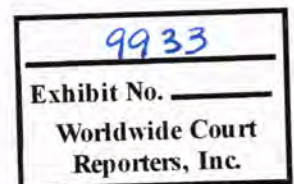
fyi

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**From:** Woelfel, Steve  
**Sent:** Sunday, May 02, 2010 5:26 PM  
**To:** Hollek, Darrell; Dean, Tim; Lemker, Mike; Quitzau, Robert  
**Cc:** Watson, Pat; Durkee, Todd; Harris, David; Mitchell, Gary; Beattie, Mike; Bump, David; Reeves, Bobby; Bosworth, Steve  
**Subject:** RE: Macondo

Spent 0600 -1130 HRS @ BP Crisis Center today (Westlake 4 off of Highway 6 / I-10). Saw both Tim Dean and Bob Quitzau. There were some Chevron and Exxon folks there as well. There has to be 100+ people working around the clock at Westlake 4.

Last 36 HRS:



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ANA-MDL2-000123457  
ADR084-000020

1) Installed the Parker connection to 1-1/2" hose for the upper annular on 2nd attempt (first attempt overtorqued/broke clamps, 2nd attempt completed w/ slight leak) - pressured up to 3,000 psi for 30 minutes - no change in flows. Bled off. Did annular not close/seal because of wellbore pressure/flowing forces or problem w/ element - unknown. Is drill pipe in/across from stack and which components across - unknown.

2) Transocean subsea came up w/ the idea overnight to hook up to Ck/Kill P/T probe (Pressure/Temperature) - that's a great idea as the P/T probe on the lwr stack is mounted in an unused Ck/Kill ram port and there's a wet connect accessible by ROV to the P/T probe - Cameron and Oceaneering put together pig-tail and assy/procedures headed to field to access P/T probe, which if successful would allow us to determine pressure in stack to get a handle on differentials which should allow better estimation of flow rates, AOF's, etc. Note this is a 12.6 ppg reservoir at 18,000+' which calculates out to a differential at the BOP of +/- 6,000 psi if SI and using a 5 ppg equivalent gradient from 18,000' to the BOP and seawater gradient from surface to the BOP (no idea what this gradient is from reservoir to BOP - flows do not appear to be overly gassy to me so used 5 ppg .....).

3) Through today Sunday @ 1130 HRS the 1-1/2" close hose to the lower annular had been 95% cut in preparation for insertion of Parker connection to allow closure from ROV and accumulator bank. The CSR's were closed again to 4,000+ psi and locked-in (had been bled off inadvertently late Friday) - no change in flows.

4) Plan fwd for rest of Sunday/Monday in regards to the BOP stack:

A) Finish cutting and prepping lower annular for closure - close and lock in pressure (go up to 4,000 psi)

B) Fix slight leak on upper annular 1-1/2" close hose - close and lock in pressure (go up to 4,000 psi - note first attempt in 1) above went to 3,000 psi)

C) Close and lock in pressure on upper pipe rams (UPR)

D) Close and lock in pressure on lower pipe rams (LPR - which are test rams (inverted))

E) Proceed w/ Ck/Kill line junk shot procedures (Tim Dean is working in this group - from what I

understand involves removing a CIW No. 6 clamp hub from a Ck/Kill jumper going from the riser adapter to the stack Ck/Kill hardpiping (remove the one at the hardpiping) and plumbing their system into this access pt - I believe the plan to operate the Ck/Kill failsafes to allow entry into the stack includes removing an existing Horizon pod and replacing w/ a Cameron pod from the Enterprise w/ MUX and hotline).

5) The box on the jt of 6-5/8" above the seabed that is one of the three leak paths was cut-off overnight and beveled in preparation for installation of a slip-on assy w/ a valve on it to close. Reports are that while cutting the drill pipe the blade looked like it was significantly impeding flow - so there might not be much pressure being exerted at this leak pt. This procedure should be accomplished over the next 24 HRS.

6) There is an initiative to hot-tap the riser directly to inject dispersant directly in the riser.

7) The coffer dams initiative has been accelerated over the last 24 HRS (note Lamar McKay w/ BP indicated on TV today the coffer dams would be in-place in 6-8 days). If the drill pipe is effectively removed as a leak path then that will leave two coffer dams required for the remaining two leak paths and the plan would be to route the oil to the Enterprise for shuttling to shore - Enterprise already has the capability to pump to shuttle tankers/barges. I can see one coffer dam hung-off from the Enterprise w/ submersible used to pump oil onboard.

8) I'm working on some ideas around hot-tapping and pumping the heck out of seal-tite

SRW

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**From:** Woelfel, Steve  
**Sent:** Friday, April 30, 2010 6:17 PM  
**To:** Hollek, Darrell; Dean, Tim; Lemker, Mike  
**Cc:** Watson, Pat; Durkee, Todd; Harris, David; Mitchell, Gary; Beattie, Mike; Bump, David; Reeves, Bobby; Bosworth, Steve  
**Subject:** RE: Macondo

Thursday night - pressured up on BSR's (blind shear rams) twice to 5,500 psi, no change in lk flows.

Friday - cut 1-1/2" Parker hose to upper annular close (Cameron D - no pressure assist), attempted HIT (Hose Insert Tool) connection to accumulator bank to function close but HIT tool leaked, spent most of rest of day rigging up another HIT tool and opened to accumulator bank late afternoon, it also leaked. Leaks not good - plan is to go up to 3,000 psi on annular close, unknown if pipe is across from annular or not, if not the annular should still CSO (complete shut-off) but this needs to be a pressure tight circuit so if it does close it stays closed versus leak open and potentially cut-out the element under high flow rate conditions.

Next step - install a different type of connection from the accumulator bank to the 1-1/2" Parker hose that has been designed by Parker and delivered to location today, involves an insert into the hose and three clamps around the hose/insert. It takes 45 gals to close a Cameron D annular, I think the accumulator bank is 80+ gals useable - so assuming we can get a tight connection to the 1-1/2" hose there should be a good chance of closing the upper annular then we can go from there. This could potentially happen overnight.

I have some long-time commitments tomorrow - but will run by BP Sunday for a couple HRS and send out a status report Sunday night assuming we don't read the flows have been shut-off or are just going out the drill pipe tomorrow.

All hands on deck @ BP w/ personnel/logistics/contractors - no shortage of adequate resources.

SRW

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**From:** Woelfel, Steve  
**Sent:** Thursday, April 29, 2010 10:46 PM  
**To:** Hollek, Darrell; Dean, Tim; Lemker, Mike  
**Cc:** Watson, Pat; Durkee, Todd; Harris, David; Mitchell, Gary; Beattie, Mike; Bump, David; Reeves, Bobby; Bosworth, Steve  
**Subject:** Re: Macondo

Looks like CSR's may have closed this evening using 1" JIC hose screwed directly in shuttle circuit and tied back to an accumulator bank run subsea. The CSR's are non-sealing - flow diminished momentarily at the riser body crimp above the flex jt when pressuring up but then returned to previous level of flow at this lk pt. Some think flow is dwn somewhat at the other lk pts. Plan overnight is to pressure up on the blind shears and/or MPR's. Tomorrow eqpt should arrive for HIT intervention to enable attempts to close the 10k annulars on the LMRP - that's a good idea. Wild Well Control is working on some ck/kill line intervention eqpt to enable pumping mtl in btm of stack to plug off lk paths above. I'll go to the 0600 HRS Handover meeting in the morning and play it by ear on sticking around depending on what's going on and if we can help.

SRW

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**From:** Hollek, Darrell  
**To:** Woelfel, Steve; Dean, Tim; Lemker, Mike  
**Cc:** Watson, Pat; Durkee, Todd; Harris, David; Mitchell, Gary; Beattie, Mike; Bump, David;

Reeves, Bobby  
**Sent:** Thu Apr 29 12:35:14 2010  
**Subject:** FW: Macondo

Below is the time BP is requesting that you show up today and the individual you should contact. Thank you very much in assisting with this issue. Hopefully David or Pat has contacted you about this request. Your expertise can hopefully assist in coming up with solutions that can best resolve the problems at hand. Thanks for your participation.

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**From:** Fryar, Robert T [mailto:fryarrt@bp.com]  
**Sent:** Thursday, April 29, 2010 12:22 PM  
**To:** Hollek, Darrell  
**Cc:** Verchere, Christina C  
**Subject:** RE: Macondo

Darrell,

Thanks for the support. It is very much appreciated.

Location: Westlake 4 building located at I-10 and Hwy 6

Contact name and phone number: Christina Verchere 713-470-8306

Time: 4pm

If they call Christina when they arrive, she will bring them up.

Call me if you have any questions.

Many thanks

Bob

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**From:** Hollek, Darrell [mailto:Darrell.Hollek@anadarko.com]  
**Sent:** 29 April 2010 17:53  
**To:** Fryar, Robert T  
**Cc:** Hollek, Darrell  
**Subject:** Macondo

Bob, I am rounding up the following 3 people to send to your office this afternoon:

Steve Woelfel - drilling ops manager (he had been the ops manager on the Horizon at one time and knows the rig, BOP stack and ops - problem solver)

Tim Dean - subsea engineering advisor. Subsea construction and ROV intervention - problem solver

Mike Lemker - construction superintendent - Subsea Construction and containment. Idea man

I believe these 3 guys are very knowledgeable and hopefully can provide some ideas that can help.

Please provide me the time, location and contact name to pass on to these 3 individuals.

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