

From: mcnuttt@usgs.gov  
Sent: Tuesday, June 08, 2010 12:19:12 PM  
To: Martha N Garcia/BRD/USGS/DOI  
CC: mark\_sogge@usgs.gov  
Subject: RE: Preliminary flow rate results

Here is the problem. The flow rate is highly dependent on the well completion, the flow path you assume through the system of failed core liners and annuli, and through the restrictions in the BOP. The numbers you would get from such a survey, Martha, might be a reasonable upper bound. But they would probably be in the 50,000 to 70,000 barrels per day area from what I have seen so far. Those numbers are definitely out there are definitely available. All of the skill in this, and that is the role of the teams put together by George and Don, is to figure out what are the range of possible flow paths and thus narrow down what are the realistic rates given all of the likely damage that this well and BOP has sustained. I have seen one such thorough analysis so far, but it came out with rather low numbers (upper bound of 23,000 bpd or so...)

Marcia

From: Martha N Garcia/BRD/USGS/DOI  
Sent: Tuesday, June 08, 2010 11:23 AM  
To: Marcia K McNutt  
Cc: "Mark Sogge" <mark\_sogge@usgs.gov>  
Subject: Re: Preliminary flow rate results

Marcia, I understand that the conditions are widely different, but would it be useful to get a range of flow rates from the same production field to compare with the WH numbers?

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Martha N. Garcia, Chief of Staff  
Senior Advisor for Biology  
301 National Center  
Reston, VA 20192  
mgarcia@usgs.gov  
703 648-6960  
703 648-4039 fax

Sent from my BlackBerry Wireless Handheld (www.BlackBerry.net)

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

From: Marcia K McNutt  
Sent: 06/08/2010 09:27 AM EDT  
To: Martha Garcia; Mark Sogge  
Subject: Re: Preliminary flow rate results

Martha -

After you adjust the WHOI numbers for the actual oil-gas ratio being observed on the Enterprise from the Top Hat, which is the value used by the Plume Team looking at video, then the results they have quoted are very similar to the results from the video team. Their lower bound is almost exactly the same and their upper bound is about 10,000 bpd higher. This technique seems to have less precision which I do not believe is inherent in the instrumentation but rather is the challenges they had in backing out precise navigation.

These results just arrived this morning. The video group has not seen them. I actually would prefer to keep the estimates independent.

Hope this helps. Can you please forward, Martha?

**Exhibit No.  
8852**

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Marcia

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

From: Martha N Garcia  
Sent: 06/08/2010 09:15 AM EDT  
To: Marcia McNutt; Mark Sogge  
Subject: Fw: Preliminary flow rate results

Marcia, the upper limit of WHOI estimates are beyond the new numbers proposed by the FRTG.

Was this data discussed and incorporated in yesterdays FRTG telecon?

Also, was the new video used to revise the upper and lower bounds, the WHOI video?

Thanks

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Martha N. Garcia, Chief of Staff  
Senior Advisor for Biology  
301 National Center  
Reston, VA 20192  
mgarcia@usgs.gov  
703 648-6960  
703 648-4039 fax

Sent from my BlackBerry Wireless Handheld (www.BlackBerry.net)

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

From: "Grawe, William" [William.R.Grawe@uscg.mil]  
Sent: 06/08/2010 08:05 AM EST  
To: Martha Garcia  
Cc: "Greene, Lawrence CDR"  
Subject: FW: Preliminary flow rate results

Martha...can you share this information with the FRTG...hopefully they already know about it.

Thanks,

Bill Grwe

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

From: Sisson, Matthew CAPT  
Sent: Tuesday, June 08, 2010 6:36 AM  
To: Gould, Austin CAPT  
Subject: FW: Preliminary flow rate results

Austin,

These numbers from WHOI are significantly at variance to what we've seen. We need to get this to FRTG ASAP to have the scientists discuss it, but now that we have this estimate albeit preliminary, we have to proceed in a transparent manner and quickly, too Matt

Sent from my GoodLink synchronized handheld (www.good.com)

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

From: Kusek, Joseph LT  
Sent: Tuesday, June 08, 2010 02:47 AM Central Standard Time

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IGS635-004604

To: Sisson, Matthew CAPT; Cundy, Donald  
Subject: FW: Preliminary flow rate results

Sent from my GoodLink synchronized handheld (www.good.com)

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

From: rcamilli@whoi.edu [mailto:rcamilli@whoi.edu]  
Sent: Tuesday, June 08, 2010 01:51 AM Central Standard Time  
To: Kusek, Joseph LT; Cundy, Donald; Mulligan, Dinah  
Cc: rcamilli@whoi.edu; dyoerger@whoi.edu; llw@jhu.edu; ahtechet@MIT.EDU;  
abowen@whoi.edu; jfenwick@whoi.edu  
Subject: Preliminary flow rate results

LT Kusek,

I have attached a preliminary estimate of the total flow rate, based on our acoustic measurements. Our total flow rate estimate is 0.12 cubic meters/sec to 0.23 cubic meters/sec this translates to roughly 31,000 barrels per day to 62,000 barrels per day (assuming 50% oil in the flow). The attached document proves an explanation of our calculations. We expect to refine these calculations in the coming days.

Regards,  
Rich

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This message was sent using IMP, the Internet Messaging Program.