



Re: Press. Release on FRTG efforts - June 10 **PLEASE VIEW IN HTML

Martha N Garcia o Marcia K McNutt

06/11/2010 04:12 PM

Cc: mark_sogge

Should I use the best estimated high of 30k bbls/day or the high of 40k?

Difference would be

| Days | | | |
|----------------|----|--------|-----------|
| pre riser cut | 41 | 40,000 | 1,640,000 |
| post riser cut | 8 | 42,000 | 336,000 |
| | | | 1,976,000 |
| Days | | | |
| pre riser cut | 41 | 30,000 | 1,230,000 |
| post riser cut | 8 | 32,000 | 256,000 |
| | | | 1,486,000 |

We are in Day 53, so why was the original calculation done based on 41 days on June 6th?

To update for Day 53, Would look like

| Day 53 | | | |
|----------------|----|--------|-----------|
| pre riser cut | 45 | 40,000 | 1,800,000 |
| post riser cut | 8 | 42,000 | 336,000 |
| | | | 2,136,000 |
| Day 53 | | | |
| pre riser cut | 45 | 30,000 | 1,350,000 |
| post riser cut | 8 | 32,000 | 256,000 |
| | | | 1,606,000 |

Are you comfortable with the Day 53 estimate?

Martha N. Garcia, Chief of Staff
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Marcia K McNutt

We can use the higher estimates as they are offi...

06/11/2010 02:07:07 PM

From: Marcia K McNutt/DO/USGS/DOI
To: Martha N Garcia/BRD/USGS/DOI@USGS, mark_sogge@usgs.gov
Date: 06/11/2010 02:07 PM
Subject: Re: Press. Release on FRTG efforts - June 10 **PLEASE VIEW IN HTML

We can use the higher estimates as they are official now. I am not sure that we want to use the 20 percent given the DOE concerns. Let's just add 2000 like we did before which is what I got from my calculation and am ready to defend.

Martha N Garcia

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

From: Martha N Garcia
Sent: 06/11/2010 01:57 PM EDT
To: Marcia McNutt; Mark Sogge
Subject: Fw: Press. Release on FRTG efforts - June 10 **PLEASE VIEW IN

HTML

Marchia, Mark, Should we use the higher estimates in our daily report out on number of barrels released thus far.

Is the 20% post riser estimate still valid

Thanks

Martha N. Garcia, Chief of Staff
Senior Advisor for Biology

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----- Forwarded by Martha N Garcia/BRD/USGS/DOI on 06/11/2010 01:55 PM -----

From: "Grawe, William" <William.R.Grawe@uscg.mil>
To: "Martha Garcia" <mgarcia@usgs.gov>
Cc: "Greene, Lawrence CDR" <Lawrence.E.Greene@uscg.mil>
Date: 06/11/2010 01:19 PM
Subject: FW: Press. Release on FRTG efforts - June 10 **PLEASE VIEW IN HTML
Sent by: William.R.Grawe@uscg.mil

Martha....

For practical use...is it fair to interpret the FTRG news release from yesterday as meaning 40,000 BBLs released as the most probable high end discharge rate before the riser was cut and 48,000 BBLs per day as the most probable high end discharge rate after the riser was cut (+ 20%)...until new numbers are received?

Bill

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

From: Lindgren, Lance LCDR

Sent: Friday, June 11, 2010 11:59 AM

To: Grawe, William

Cc: McKenna, Robert CDR; Gould, Austin CAPT; Greene, Lawrence CDR;

Wiedenhoeft, Paul CAPT

Subject: FW: Press. Release on FTRG efforts - June 10 **PLEASE VIEW IN HTML

PLEASE VIEW IN HTML

Bill-

There is a lot of verbiage in the statements below. Looks like there are several different teams providing several different numbers which is confusing/ambiguous:

a) "...average flow rate for the leakage prior to the insertion of the RITT is between 25,000 to 30,000 barrels per day, but could be as low as 20,000 barrels per day or as high as 40,000 barrels per day."

b) " The team continued to refine its estimate and has concluded that the best estimate for the average flow rate was in the range of 12,600 to 21,500 barrels of oil per day."

As you can see, there's lots of numbers thrown around with no "this is the official estimate" listed anywhere. It also doesn't appear there was an estimate provided for the flow after the riser was cut.

With all the range numbers listed below, is there an "official" number that we should be using here? Specifically to populate the oil budget.

v/r,

~Lance

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

From: Gould, Austin CAPT
Sent: Thursday, June 10, 2010 6:42 PM
To: Lindgren, Lance LCDR
Cc: McKenna, Robert CDR
Subject: FW: Press. Release on FRTG efforts - June 10

Lance--please update the Fuel Account as appropriate.

Thanks--ag

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

From: Grawe, William
Sent: Thursday, June 10, 2010 6:03 PM
To: HQS-PF-flidr-NIC HQ Situation Unit; Allen, Thad ADM; Neffenger, Peter RDML;
Watson, James RADM; Nash, Roy RDML
Cc: Beeson, Scott CAPT; Wiedenhoeft, Paul CAPT; McKenna, Robert CDR; Greene,
Lawrence CDR; Gould, Austin CAPT; Parsons, Roger; Rooke, Connie CDR; Hubble,
Solange; Kelley, Brian CAPT; McPherson, James CAPT; LaBrec, Ronald CAPT;
O'Neil, Christopher LCDR; Moland, Mark CDR; Martha Garcia; Russell, Anthony
LCDR
Subject: FW: Press. Release on FRTG efforts - June 10

Admirals,

Below is the press release from a news conference Dr. McNutt had at 1645 EDT
today concerning the Flow Rate.

V/R,

Bill Grawe

Admiral Allen, Dr. McNutt Provide Updates on the Progress of Scientific Teams
Analyzing Flow Rates from BP's Well

Washington, DC: Under the direction of National Incident Commander Admiral Thad Allen, the Flow Rate Technical Group (FRTG), which is led by United States Geological Survey Director Dr. Marcia McNutt, and a scientific team led by Energy Secretary Steven Chu are analyzing new data and bringing together several scientific methodologies to develop an updated estimate of how much oil is flowing from BP's leaking oil well in the Gulf of Mexico.

The updated estimate, which will bring together the ongoing work of scientists and engineers from the federal government, universities, and research institutions, will be of how much oil has been flowing since the riser was cut on June 3.

"Developing accurate and scientifically grounded oil flow rate information is vital, both in regards to the continued response and recovery, as well as the important role this information may play in the final investigation of the failure of the blowout preventer and the resulting spill," said Admiral Allen, the National Incident Commander. "Top government and independent scientists are working non-stop to analyze all the information available and refine assessments being developed through numerous methodologies. I have directed Dr. McNutt and Secretary Chu to analyze the latest data and assess the various methodologies that are being used and bring them together into an updated best estimate of how much oil is now flowing from BP's well. They will have that updated best estimate in the coming days."

Dr. McNutt announced today that three of the scientific teams analyzing flow rates have reached updated assessments, based on new data or analysis, of flow rates from BP's well before the riser was cut on June 3. The Department of the Interior and the Department of Energy have also directed BP to provide precise differential pressure measurements inside and outside the top hat to allow federal scientists to develop another independent estimate of how much oil is flowing from BP's well.

"Each of the methodologies that the scientific teams is using has its advantages and shortcomings, which is why it is so important that we take several scientific approaches to solving this problem, that the teams continue working to refine their analyses and assessments, and that those many data points inform the updated best estimate that we are developing, " said Dr. McNutt.

Below is a summary of the independent scientific methodologies that are being used to develop assessments of flow rates.

1. Analysis of Pressure Readings (DOE scientists led by Secretary Chu)

A team of federal scientists led by Energy Secretary Steven Chu is analyzing pressure readings from the BOP stack and the riser to assess flow rates and how flow rates may have changed as a result of the riser being cut.

The Department of the Interior and the Department of Energy have directed BP to provide precise differential pressure measurements inside and outside the top hat to allow federal scientists to develop another independent estimate of how much oil is flowing from BP's well. The team of scientists led by Secretary Chu expects to complete that estimate in the coming days.

2. Flow Rate Technical Group

The Flow Rate Technical Group (FRTG), which was convened by Admiral Allen and which is led by USGS Director Dr. Marcia McNutt, is comprised of several Sub-Teams that are pursuing independent approaches to estimating the oil flow rate from the damaged well. The FRTG will soon have an assessment of how much oil has been flowing from BP's well since the riser was cut on June 3.

* The Plume Modeling Team of the FRTG is pursuing the approach of observing video of the oil/gas mixture escaping from the damaged well, using particle image velocimetry analysis to estimate fluid velocity and flow volume. On May 27, the Plume Modeling Team, which analyzed video obtained from BP, provided an initial lower bound estimate of 12,000 to 25,000 barrels of oil per day, but at that point were continuing their work to provide an upper bound estimate.

Based on additional video that BP was directed to provide, members of the Plume Modeling Team have now calculated updated lower and upper bound range estimates for a period of time before the Riser Insertion Tube Tool was inserted and before the riser was cut. Most of the experts have concluded that, given the limited data available and the small amount of time to process that data, the best estimate for the average flow rate for the leakage prior to the insertion of the RITT is between 25,000 to 30,000 barrels per day, but could be as low as 20,000 barrels per day or as high as 40,000 barrels per day.

* The Mass Balance Team of the FRTG is using remote sensing data from deployment of the Airborne Visible InfraRed Imaging Spectrometer (AVIRIS) and satellite imagery to calculate the amount of oil on the ocean surface on a certain day. The team is correcting the value for oil evaporated, skimmed, burned, and dispersed up to that day and divided by time to produce an average rate.

Based on observations on May 17th, and given the amount of oil observed and the adjusted calculations for the amount of oil that has been burned, skimmed, dispersed, or evaporated the initial estimate from the Mass Balance Team that was announced on May 27 was in the range of 12,000 to 19,000 barrels of oil per day. The team continued to refine its estimate and has concluded that the best estimate for the average flow rate was in the range of 12,600 to 21,500 barrels of oil per day.

* The Reservoir Modeling Team of the FRTG will describe the geologic formations as well as composition and pressures of the oil, natural gas, and other compounds that are being released. Using open-hole logs; pressure, volume, and temperature data; core samples; and analog well or reservoir data; the team will populate computer models and determine flow rate from targeted sands in the well as a function of bottomhole pressure. The reservoir modeling team is continuing to work on independent estimates that will be completed later this month

* The Nodal Analysis Team of the FRTG will use input from reservoir modeling (including pressure, temperature, fluid composition and properties over time) and pressure and temperature conditions at the leak points on the sea floor, along with details of the geometries of the well, BOP, and riser to calculate fluid compositions, properties, and fluxes from both before and after riser removal. The nodal analysis team is continuing to work on independent estimates that will be completed later this month

3. Woods Hole Analysis

In coordination with the Unified Command, a team of experts lead by Woods Hole Oceanographic Institution (WHOI) and assisted by researchers from Johns Hopkins University, University of Georgia and Massachusetts Institute of Technology used acoustic technologies to measure flow rates after the top-kill attempt ended and before the riser was cut. Using an ROV, flow estimates have been derived from three different view angles above the riser pipe and three different view angles above the BOP. Woods Hole Oceanographic's initial total flow rate estimate of 0.12m³/s to 0.23m³/s from before the riser was cut is a preliminary bulk flow estimate. This outflow may contain gases, liquids, and solids including natural gas, condensates, oil, sediments, and produced water.

To view the Plume Team Statement, [click here](#) <

<http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=34638> > .

To view the Plume Team Estimates, click here <
<http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=34800> > .

To view the Woods Hole Statement, click here <
<http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=34799> > .

For a list of FRTG Team membership click here <
<http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=34639> > .

For a list of FRTG member bios click here <
<https://cms.doi.net/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=34640> > .

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